



**Analogue Circuits
Circuits Analogiques
Analoge Schaltungen**

Integrated Circuits Circuits Intégrés Integrierte Schaltungen

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INTRODUCTION

PRO ELECTRON

A type designation or type number identifies a device so that it can be ordered by electronic equipment manufacturers or service engineers with confidence that it will meet a certain specification, even if it is made by more than one manufacturer or if several years have passed since it was first introduced. It is helpful to include information in the type number which readily associates it with a category, group or range of devices, without making it too long or difficult to memorize.

A common type designation code for receiving tubes was introduced by a number of manufacturers in the 1930's and for semiconductor devices in the 1950's. Later, as more and more manufacturers realized the advantages of the use of a common type numbering code for tubes and semiconductors and became interested in using the system, it was decided to found a separate organization to administer the allocation and registration of type numbers.

So in 1966 an international association "PRO ELECTRON" was set up in Brussels to perform this function. There are now 20 members representing the large majority of the West European tube and semiconductor manufacturers. They have, through their committees, evolved a comprehensive type numbering system covering the whole range of active electronic components - receiving tubes, electronic tubes for professional equipment, cathode ray tubes, discrete semiconductor devices and integrated circuits.

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PRO ELECTRON TYPE DESIGNATION CODE FOR INTEGRATED CIRCUITS

The original code for integrated circuits was analogue to the code for discrete semiconductor devices and consisted of a prefix (family letters), a function letter, a serial number of two figures and a figure indicating the operating temperature range, example : FLH101.

Most of the circuits manufactured in Europe, particularly the digital integrated circuits, were copies of devices developed in the United States and sold under wellknown "house" numbers. Therefore PRO ELECTRON developed a new code which could incorporate the existing "house" numbers. So the last figure of the original PRO ELECTRON code system, indicating the operating temperature range, could no longer be used for this purpose and therefore in the new code, the third letter (formerly indicating the function) now indicates the temperature range.

So that a clear distinction could be made between the new and the former codes it was agreed to use a serial number of at least 4 digits in future. Types with existing company numbers of less than 4 figures are completed to a 4 digit number by adding zeros in front of the serial number.

For more details see page 8.

PRO ELECTRON INTEGRATED CIRCUITS REFERENCE BOOK

The book consists of two separate volumes, Volume 1 Analogue Circuits, Volume 2 Digital Circuits.

Volume 1 : Analogue Circuits, lists all analogue circuits registered with a PRO ELECTRON type number which are still commercially available, with the most relevant data (description, function(s), application(s), characteristic(s), circuit diagrams and outline drawings, as well as a list of suppliers.

Volume 2 : Digital Circuits, lists all digital circuits registered with a PRO ELECTRON type number which are still commercially available, with abbreviated data tables (description of function, characteristics), logic diagrams and outline drawings, as well as a list of suppliers.

The primary aims of this book are to aid the selection of integrated circuits suitable for a particular application and to direct potential users to the sources of supply. These volumes are not intended to replace the data sheets of individual manufacturers, so it is always necessary to check the suitability of any device against the manufacturer's data sheets.

In exceptional cases, particularly for digital circuits where the data are published in table form, the brief characteristics published may be the same for several devices with different type numbers.

In these cases it is especially important to examine the manufacturer's detailed data carefully, as different type numbers will have been allocated because of deviations in more detailed characteristics which may be of importance for certain applications.

The terminology, letter and graphical symbols used conform where possible with the recommendations of the INTERNATIONAL ELECTRONIC COMMITTEE (IEC).

These books contain the characteristics of all types having a PRO ELECTRON type number. Some manufacturers also sell other types with "house" or other type numbers, so that the lists in this book do not necessarily represent the entire sales programme of the manufacturers mentioned.

The information has been prepared with the full support of the manufacturers of the types mentioned.

Every effort has been made to ensure the accuracy of the data published : however, PRO ELECTRON can not be held responsible for obvious incompatibilities, errors or omissions.

TYPE DESIGNATION CODE FOR INTEGRATED CIRCUITS

This type nomenclature for integrated circuits applies to semiconductor monolithic, semiconductor multi-chip, thin film and thick film hybrid integrated circuits.

A basic type number consists of :

THREE LETTERS FOLLOWED BY A SERIAL NUMBER

FIRST AND SECOND LETTER :

1. DIGITAL FAMILY CIRCUITS (see Note 1)

The FIRST TWO LETTERS (FA...FZ, GA...GZ, HA...HZ, PC...PZ) identify the family.

2. SOLITARY CIRCUITS

The FIRST LETTER divides the solitary circuits into :

- S -- Solitary digital circuits
- T -- Analogue Circuits
- U -- Mixed analogue/digital circuits

The SECOND LETTER is a serial letter without any further significance except "H" which stands for hybrid circuits.

3. MICROPROCESSORS

The FIRST TWO LETTERS identify microprocessors and correlated circuits as follows :

- MA - Micro computer
Central processing unit
- MB - Slice processor (see Note 2)
- MD - Correlated memories
- ME - Other correlated circuits (Interface, clock, peripheral controller, etc).

THIRD LETTER :

It indicates the operating ambient temperature range.

The letters A through G give information about the temperature :

A -- temperature range not specified below

B -- 0°C to +70°C

C -- -55°C to +125°C

D -- -25°C to +70°C

E -- -25°C to +85°C

F -- -40°C to +85°C

G -- -55°C to +85°C

Note : If a circuit is published for another temperature range, the letter indicating a narrower temperature range may be used or the letter "A".

Example : the range 0°C to +75°C can be indicated by "B" or "A".

SERIAL NUMBER :

It may be either a 4-digit number assigned by Pro Electron or the serial number (even a combination of figures and letters) of an existing company type designation of the manufacturer.

(contd)

To the basic type number may be added :

A VERSION LETTER

It indicates a minor variant of the basic type or the package.
Except "Z" which means customized wiring, the letter has no fixed meaning. For packages the following letters are recommended :

C -- for cylindrical
D -- for ceramic DIL
F -- for flat pack
L -- for chip on tape (foil)
P -- for plastic DIL
Q -- for QUIL
T -- for miniature plastic
U -- for uncased chip.

Alternatively a TWO LETTER-SUFFIX may be used instead of a single package-version letter, if the manufacturer (sponsor) wishes to give more information.

FIRST LETTER : General shape

C = Cylindrical
D = Dual-in-line (DIL)
E = Power DIL (with extern.heat sink)
F = Flat (leads on 2 sides)
G = Flat (leads on 4 sides)
K = Diamond (TO-3 family)
M = Multiple-in-line (except Dual-,
Triple-, Quadruple-in-line)
Q = Quadruple-in-line (QUIL)
R = Power QUIL (with extern.heat sink)
S = Single-in-line (as TO-127 or -220)
T = Triple-in-line

SECOND LETTER : Material

C = Metal-ceramic
G = Glass-ceramic
(cerdip)
M = Metal
P = Plastic

Remark : To avoid confusion with a version letter a hyphen is used preceding the suffix.

Examples :

GMB74LS00A-DC = digital IC, GM family, oper.temp.0 to 70°C, company N°74LS00, A version, ceramic DIL package.
TDA1000P = analogue circuit, no standard temp. range, serial N°1000, plastic DIL package.
SAC2000 = solitary digital circuit, oper.temp. -55 to +125°C, serial N°2000.

Note 1 : A logic family is an assembly of digital circuits designed to be interconnected and defined by its basic electrical characteristics (such as : supply voltage, power consumption, propagation delay time, noise immunity). The basic characteristics of the registered digital families are listed at the beginning of the Reference Book on Integrated Circuits, Volume 2 : Digital Circuits.

Note 2 : With "slice processor" is meant a functional slice of microprocessor.

Note 3 : The First Letter S should be used for all solitary memories, to which, in the event of hybrids, the Second Letter H should be added (e.g.SH for Bubble-memories).

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(x) Les types classés dans ce paragraphe sont ceux dont les paramètres électriques n'ont pu être insérés dans les tableaux du chapitre suivant.

INTRODUCTION

PRO ELECTRON

La désignation d'un dispositif par un "numéro de type" permet son identification par les constructeurs de matériel électronique et les techniciens utilisateurs. Grâce à cette identification, le composant répond à des données techniques définies même s'il est produit par plusieurs fabricants ou si plusieurs années se sont écoulées depuis son apparition sur le marché. Il est avantageux que le numéro de type contienne déjà des informations concernant la catégorie, le groupe ou la famille où se situe le composant, ceci sans que cette désignation ne soit ni trop longue ni trop difficile à mémoriser.

Un code commun de désignation pour les tubes récepteurs avait déjà été introduit dans la décennie 1930-1940 par un certain nombre de fabricants et pour les semiconducteurs dans la décennie 1950-1960. Par la suite, comme un nombre croissant de fabricants se mirent à réaliser les avantages d'un code commun pour les tubes et les semiconducteurs et se montrèrent intéressés à l'utiliser, il fut décidé de fonder une organisation privée et autonome pour l'attribution et l'enregistrement des désignations. C'est ainsi qu'en 1966, l'Association Internationale PRO ELECTRON a été créée à Bruxelles dans ce but. Elle comporte actuellement 20 membres représentant la plupart des fabricants de tubes et de semiconducteurs d'Europe occidentale. Les Comités qu'ils ont constitués ont mis sur pied un vaste système de codification couvrant l'ensemble des composants actifs : tubes récepteurs, tubes électroniques pour équipements professionnels, tubes à rayon cathodique, dispositifs discrets à semiconducteurs, circuits intégrés et microprocesseurs.

MEMBRES

Allemagne :

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CODE DE DÉSIGNATION PRO ELECTRON POUR CIRCUITS INTÉGRÉS

Par analogie avec le code des dispositifs discrets à semi-conducteurs, le code pour circuits intégrés comportait initialement trois lettres et trois chiffres à savoir :

- un préfixe de deux lettres désignant la famille technologique de série, une troisième lettre indiquant la fonction, un numéro d'ordre de deux chiffres caractérisant le modèle, et enfin un troisième chiffre donnant les limites de température de fonctionnement.
ex : FLH101.

Cependant la plupart des circuits intégrés fabriqués en Europe, en particulier les circuits numériques, répondaient à des spécifications de dispositifs créés aux Etats-Unis et étaient vendus sous des "appellations maison" très connues sur le marché; cette situation amena PRO ELECTRON à élaborer un nouveau code dont la partie chiffrée significative du modèle est identique à celle de ces "appellations maison".

Il n'était dès lors plus possible d'utiliser le dernier chiffre pour indiquer les limites de température de fonctionnement. C'est pourquoi, dans le nouveau code, la troisième lettre est utilisée à cette fin. Pour établir une distinction nettement apparente entre l'ancien et le nouveau code, il fut décidé que désormais la partie chiffrée comporterait un minimum de 4 chiffres, des zéros étant ajoutés au début de la partie chiffrée de moins de 4 chiffres utilisée par les firmes.

Pour plus amples détails voir page 13.

GUIDE DES CIRCUITS INTÉGRÉS PRO ELECTRON

Ce guide comprend deux volumes : le Volume 1 pour les circuits analogiques et le Volume 2 pour les circuits numériques.

Il contient tous les circuits intégrés enregistrés sous une désignation PRO ELECTRON qui sont disponibles sur le marché. Pour chacun des circuits, il fournit, sous une forme concise et pratique, les données techniques principales (la description de la fonction, les valeurs limites et caractéristiques essentielles) le schéma synoptique du circuit avec l'identification des connexions le dessin d'encombrement et enfin la liste des fournisseurs.

Le but essentiel de ce répertoire est de permettre l'identification rapide des circuits intégrés PRO ELECTRON, d'en faciliter le choix et d'indiquer les sources d'approvisionnement. Ces volumes ne sont pas destinés à remplacer les notices techniques des fabricants, de sorte qu'il est conseillé de toujours vérifier dans les caractéristiques détaillées de ces notices que le circuit convient bien à l'application particulière envisagée.

La terminologie, les symboles littéraux et graphiques utilisés sont, autant que possible, conformes aux recommandations de la COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE (CEI).

Ces volumes mentionnent tous les dispositifs auxquels PRO ELECTRON a attribué un "numéro de type". Cependant comme certains fabricants vendent également d'autres circuits sous d'autres appellations, il en résulte que ces volumes ne contiennent pas nécessairement la totalité des dispositifs présentés par les fournisseurs.

Les renseignements fournis ont été rassemblés en collaboration avec les fabricants des dispositifs mentionnés. Le plus grand soin a été apporté en vue de l'exactitude des données publiées. Cependant PRO ELECTRON ne peut être tenu pour responsable des quelques erreurs ou omissions qui pourraient subsister.

CODE DE DÉSIGNATION DES CIRCUITS INTÉGRÉS

Le code de désignation s'applique aux circuits intégrés monolithiques à semiconducteurs, aux circuits intégrés comprenant plusieurs puces à S.C. et aux circuits intégrés hybrides à couches minces ou à couches épaisses.

La désignation d'un type de base se compose de :

TROIS LETTRES ET UN NUMÉRO D'ORDRE

DEUX PREMIÈRES LETTRES :

1. CIRCUITS FAMILLES (voir Note 1)

Les DEUX PREMIÈRES LETTRES (FA...FZ, GA...GZ, HA...HZ, PC...PZ) indiquent la FAMILLE.

2. CIRCUITS SOLITAIRES

La PREMIÈRE LETTRE répartit les circuits solitaires comme suit :

- S -- circuits logiques solitaires
- T -- circuit analogiques
- U -- circuits mixtes logique/analogique

La DEUXIÈME LETTRE est une lettre de série sans signification fixe, sauf la lettre "H" qui indique un circuit hybride.

3. MICROPROCESSEURS

Les DEUX PREMIÈRES LETTRES identifient les microprocesseurs et répartissent les circuits comme suit :

- MA - Micro ordinateur
 - Unité centrale de traitement de données
- MB - Processeur en tranches (voir Note 2)
- MD - Mémoires collatérales
- ME - Autres circuits collatéraux (Interface, horloge, contrôleur périphérique, etc...)

LA TROISIÈME LETTRE :

Indique la gamme de température ambiante d'utilisation.
Les lettres "A" à "G" renseignent sur la température :

- A -- gamme de température non spécifiée
- B -- 0°C à + 70°C
- C -- -55°C à +125°C
- D -- -25°C à + 70°C
- E -- -25°C à + 85°C
- F -- -40°C à + 85°C
- G -- -55°C à + 85°C

Note : Dans le cas où un circuit est produit pour une autre gamme, on peut utiliser soit la lettre désignant une gamme plus étroite, soit la lettre "A".

Exemple : La gamme de 0°C à 75°C peut être indiquée par "B" ou "A".

LE NUMÉRO D'ORDRE

Peut être un nombre de 4 chiffres attribués par PRO ELECTRON ou un numéro de modèle existant utilisé par un fabricant (éventuellement lettres + chiffres).

(suite)

A la désignation d'un type de base, on peut ajouter :

UNE LETTRE DE VERSION :

Elle indique une variante du type de base ou le boîtier.
Sauf "Z" qui signifie connexions internes à la demande, la lettre n'a pas de signification fixe.
Pour indiquer le boîtier, les lettres de versions suivantes sont recommandées :

"C" pour cylindrique
"D" pour DIL céramique
"F" pour boîtier plat
"L" pour puces en ruban (feuille de métal)
"P" pour DIL plastique
"Q" pour QUIL
"T" pour boîtiers miniatures en plastique
"U" pour puce (sans boîtier)

Alternativement, un SUFFIXE de DEUX LETTRES peut être utilisé au lieu d'une simple lettre de version pour désigner le boîtier, si le fabricant (sponsor) désire donner plus d'informations :

PREMIÈRE LETTRE : Forme générale

DEUXIÈME LETTRE : Matériau

C = Cylindrique	C = Métal-céramique
D = "Dual-in-line" (DIL = 2 rangées de sorties)	
E = "DIL" avec radiateur extérieur	G = Verre-céramique
F = Boîtier plat (sorties sur 2 côtés)	
G = Boîtier plat (sorties sur 4 côtés)	
K = Famille "TO-3" (losange)	M = Métal
M = "Multiple-in-line" (sauf "Dual-", "Triple-" et "Quadruple-in-Line")	
Q = "Quadruple-in-line" (QUIL = 4 rangées de sorties)	P = Plastique
R = "QUIL" avec radiateur extérieur	
S = "Single-in-line" (comme TO-127 ou TO-220)	
T = "Triple-in-line" (trois rangées de sorties)	

Remarque : Pour éviter toute confusion avec une lettre de version, un tiret précède le suffixe.

Exemples :

GMB74LS00A-DC = circuit intégré logique, famille GM, température d'utilisation 0 à 70°C., n°"maison"74LS00
version A., boîtier DIL céramique.
TDA1000P = circuit analogique, pas de gamme standard de température, n°d'ordre 1000, boîtier DIL
plastique.
SAC2000 = circuit logique solitaire, température d'utilisation -55 à +125°C, n°d'ordre 2000.

Note 1 : Une famille logique est un ensemble de circuits logiques conçus pour être interconnectés et définis par des caractéristiques électriques communes (telles que : tension d'alimentation, puissance dissipée, temps de propagation, immunité au bruit).

Note 2 : Un processeur en tranches est un microprocesseur daté d'une certaine longueur de mot par la juxtaposition (mise en parallèle) d'un certain nombre de circuits élémentaires offrant chacun une longueur de mot moindre (2 ou 4 bits).

Note 3 : La première lettre S peut être utilisée pour toutes les mémoires solitaires, et, dans le cas de mémoires hybrides, on utilisera la seconde lettre H (c.a.d. : SH pour les mémoires à bulles).

INHALTSVERZEICHNIS

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VORWORT

PRO ELECTRON

Eine Typenbezeichnung (Typennummer) soll ein Bauelement so kennzeichnen, dass man es danach bestellen kann, und dass die damit festgelegten Daten gelten selbst wenn es von mehreren Herstellern gefertigt wird, oder seine Erstfertigung mehrere Jahre zurück liegt.

Ein zusätzlicher Vorteil ist es, wenn die Typenbezeichnung eine technische Information darüber enthält, zu welcher Gruppe, Kategorie, Familie oder Art das Bauelement gehört, ohne dass sie dabei zu lange gerät oder schwer zu merken ist.

Ein erstes gemeinsames Typenbezeichnungssystem wurde für Rundfunkröhren in den dreissiger Jahren, und für Halbleiter in den fünfziger Jahren von einigen Herstellern eingeführt. Als dann später mehr und mehr Hersteller die Vorteile eines gemeinschaftlichen Typenbezeichnungssystems erkannten und sich dafür interessierten, es zu benutzen, entschloss man sich, eine treuhänderisch arbeitende Gesellschaft ins Leben zu rufen, deren Aufgabe es ist Typenbezeichnungen auszugeben und zu registrieren. So wurde 1966 die internationale Organisation "PRO ELECTRON" mit Sitz in Brüssel geschaffen und mit dieser Aufgabe betraut. Ihr gehören 20 Mitgliedsfirmen an: sie repräsentiert also die grosse Mehrheit aller westeuropäischen Röhren- und Halbleiter-Hersteller. In verschiedenen technischen Komitees wurde ein geschlossenes Typenbezeichnungssystem herarbeitet, das den gesamten Bereich der aktiven Bauelemente - Empfängerröhren, Röhren für industrielle (professionelle) Anwendung, Elektronenstrahl- (Oszillographen) Röhren, Halbleiter und integrierte Schaltungen (I.C.'s) - umfasst.

MITGLIEDER

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Irland :

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Switzerland :

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PRO ELECTRON TYPENBEZEICHNUNGSSYSTEM FÜR INTEGRIERTE SCHALTUNGEN

Der ursprüngliche Code für integrierte Schaltungen bestand, analog dem Typenbezeichnungssystem für diskrete Halbleiter, aus Vorbuchstaben (Familiebuchstaben), einem Funktionsbuchstaben, einer Seriennummer von zwei Ziffern und einer Ziffer die dem Betriebstemperaturbereich diente.
Beispiel : FLH101.

Viele in Europa hergestellte integrierte Schaltungen, es sind meistens Digitalisierungen, waren Kopien von in Vereinigten Staaten entwickelten Bauelementen mit allgemein bekannt gewordenen Firmenbezeichnungen. Aus diesem Grunde erarbeitete PRO ELECTRON einen neuen Code in den die bestehenden Firmenbezeichnungen integriert werden können. Die letzte Ziffer in der ursprünglichen Typenbezeichnung, die den Betriebstemperaturbereich angab, konnte zu diesem Zweck nicht mehr verwendet werden, deswegen wurde in dem neuen Code der dritte Buchstabe (vorher Funktionsbuchstabe) für diesen Temperaturbereich verwendet. Damit ein deutlicher Unterschied zwischen dem neuen und dem ursprünglichen Code gemacht werden kann, wurde übereingekommen, in Zukunft nur noch eine Seriennummer von mindestens 4 Ziffern zu gebrauchen. Falls eine bestehende Firmenseriennummer weniger als 4 Ziffern umfasst, wird sie von vorn an mit Nullen ausgefüllt.

PRO ELECTRON INTEGRIERTE SCHALTUNGEN REFERENZBUCH

Dieses Buch besteht aus zwei Separatausgaben, Band 1 : Analoge Schaltungen und Band 2 : Digitalisierungen.
Band 1 : Analoge Schaltungen enthält alle analoge Schaltungen die bei PRO ELECTRON registriert sind und noch geliefert werden. Ferner sind die wichtigsten Daten (Beschreibung, Funktion(en), Anwendung(en), technische Daten), Funktionsschaltbilder, Gehäuseabmessungen und die Lieferfirmen genannt.
Band 2 : Digitalisierungen enthält alle Digitalisierungen die bei PRO ELECTRON registriert sind und noch geliefert werden. Ferner sind die technischen Daten in Kurzfassung, die Blockschaltbilder, Gehäuseabmessungen und die Lieferfirmen genannt.

Dass Buch ersetzt nicht die Datenblätter der einzelnen Firmen. Es bezweckt lediglich eine Hilfe bei der Auswahl von integrierten Schaltungen für eine bestimmte Anwendung mit Hinweis auf die Hersteller, die als Lieferanten in Betracht kommen. Es ist möglich, dass für einzelne Typen, besonders für Digitaltypen, wo die Daten in Tabellenform gebracht sind, dieselben Daten für verschiedene Typen erscheinen. In diesem Falle können Abweichungen in Charakteristiken vorliegen die nicht in den Tabellen publiziert werden. In solchen Fällen sollen die Veröffentlichungen des Herstellers zu Rate gezogen werden. Die Terminologie, graphische und Buchstabensymbole sind, soweit möglich, konform den I.E.C.-Vorschlägen. Diese Bücher enthalten die Daten von allen Typen, die eine PRO ELECTRON Typenbezeichnung haben. Einige Firmen stellen integrierte Schaltungen her, die mit einer Firmen oder sonstigen anderen Typenbezeichnung geliefert werden. Die in diesem Buch genannten Typen sind daher nicht repräsentativ für das vollständige Verkaufsprogramm der Firmen. Die Angaben und Daten in diesem Buch sind in engster Zusammenarbeit mit den Herstellern erfasst worden. Alle Anstrengungen sind gemacht worden, korrekte Daten zu veröffentlichen. PRO ELECTRON ist jedoch nicht verantwortlich für deutliche Widersprüche, Irrungen oder Unzulänglichkeiten.

TYPENBEZEICHNUNGSSYSTEM FUER INTEGR. SCHALTUNGEN

Diese Typennomenklatur trifft zu für monolithische Halbleiter, Halbleiter-Multi-Chip-Bauelemente sowie für integrierte Hybridschaltungen in Dünnschicht und Dickschicht.

Die Bezeichnung von einem Grundtyp besteht aus :

DREI BUCHSTABEN UND EINER SERIENNUMMER

ERSTE ZWEI BUCHSTABEN :

1. FAMILIENSCHALTUNGEN (siehe Note 1)

Die ERSTEN ZWEI BUCHSTABEN (FA...FZ, GA...GZ, HA...HZ, PC...PZ etc.) kennzeichnen die FAMILIE.

2. EINZELNSCHALTUNGEN

Der erste Buchstabe unterscheidet die alleinstehenden Schaltkreise in :

- S -- Einzelne digitale Schaltung
- T -- Analoge Schaltung
- U -- Gemischte Analog/Digitalschaltung

Der ZWEITE BUCHSTABE ist eine Serienbuchstabe ohne feste Bedeutung, mit Ausnahme des Buchstabes "H", der eine Hybridschaltung bezeichnet.

3. MIKROPROZESSOREN

Die ersten 2 Buchstaben bestimmen Mikroprozessoren und zugehörige Schaltkreise wie folgt :

- MA - Mikrocomputer
 - zentrale Recheneinheit
- MB - Slice-Prozessor (siehe Note 2)
- MD - zugehörige Speicher
- ME - andere zugehörige Schaltkreise
 - (Anpaßschaltung, Taktschaltung, periphere Steuerung usw.)

DER DRITTE BUCHSTABE :

Gibt den Temperaturbereich oder ausnahmsweise eine Bedeutung an.

Die Buchstaben "A" bis "G" geben den Temperaturbereich an :

A -- Kein hiernach bestimmter Temperaturbereich

B -- 0°C bis + 70°C

C -- -55°C bis +125°C

D -- -25°C bis + 70°C

E -- -25°C bis + 85°C

F -- -40°C bis + 85°C

G -- -55°C bis + 85°C

Note : Wenn eine Schaltung für einen abweichenden Temperaturbereich spezifiziert is, kann entweder der Buchstabe für den schmaleren Temperaturebereich oder der Buchstabe "A" verwendet werden.

Beispiel : Für den Temperaturbereich 0°C bis +75°C kann "B" oder "A" verwendet werden.

DIE SERIENNUMMER

Ist entweder eine 4-Ziffern Nummer (von PRO ELECTRON gegeben) oder eine Seriennummer (Ziffern und eventuelle Buchstaben) einer bestehenden Firmennummer. Falls die Firmennummer aus weniger als 4 Buchstaben besteht werde sie vorn ausgefüllt mit Nullen (0).

(Forts.)

Zu der Bezeichnung eines Grundtyps kann angehängt sein :

EIN VERSIONSBUCHSTABE :

Bezeichnet eine geringfügige Abweichung vom Basistyp oder vom Gehäuse.
Ausgenommen "Z" (=innere Verbindungen nach Kundenwunsch) hat sie keine feste Bedeutung.
Die folgenden Buchstaben werden empfohlen für Gehäusevarianten :

C = für Zylinderförmiges Gehäuse
D = für Keramik DIL
F = für flaches Gehäuse
L = für Kristall auf Film (Folie)
P = für plastic DIL
Q = für QUIL
T = für Miniatur-Plastikgehäuse
U = für Chip (ohne Gehäuse)

EIN ZWEI BUCHSTABEN - ANHANG (benützt anstatt der Gehäuse-Versionsbuchstaben)

ERSTE BUCHSTABE : Allgemeine Form

C = Zylindrisch
D = "Dual-in-Line" (DIL=2 Reihen von Anschlüssen)
E = DIL mit zusätzlicher Wärmeableitung
F = Flaches Gehäuse (Anschlüsse an 2 Seiten)
G = Flaches Gehäuse (Anschlüsse an 4 Seiten)
K = "TO-3"-Familie (Rhombus)
M = "Multiple-in-line" (mehr als 4 Reihen von Anschlüssen)
Q = "Quadruple-in-line" (QUIL=4 Reihen von Anschlüssen)
R = "QUIL" mit zusätzlicher Wärmeableitung
S = "Single-in-line" (eine Reihe von Anschlüssen)
T = "Triple-in-line" (drei Reihen von Anschlüssen)

ZWEITE BUCHSTABE : Material

C = Metal-Keramik
G = Glas-Keramik
M = Metal
P = Plastik

Anmerkung : Um Verwirrung mit einem Versionsbuchstabe zu vermeiden benützt man einen Bindestrich vor dem Anhang.

Beispiele :

GMB74LS00A-DC = Digitale I.S., GX-Familie, Temperaturbereich : 0 bis 70°C, Firmen Nr 74LS00, Version A, Keramik DIL Gehäuse.
TDA100P = Analoge Schaltung, kein Standardtemperaturbereich, Seriennummer 1000, Plastik DIL Gehäuse.
SAC2000 = Einzelne digitale Schaltung, Temperaturbereich -55° bis +125°C, Seriennummer 2000.

Note 1 : Eine Logikfamilie ist eine Gruppierung von Digitalschaltungen, die untereinander verbunden werden können und die durch eine bestimmte Technologie mit gemeinsamen elektrischen Eigenschaften (wie : Versorgungsspannung, Leistungsverbrauch, Durchlaufzeit, Störungsimunität) festgelegt sind. Die grundlegenden Kenndaten der registrierten Digitalfamilien sind am Anfang des Referenz-Buches über integrierte Schaltungen, Band 2 : "Digitale Schaltkreise" aufgeführt.

Note 2 : Mit "Slice-Prozessor" ist eine funktionsfähige Scheibe des Mikroprozessors gemeint.

Note 3 : Der erste Buchstabe S ist für alle alleinstehenden Speicher anzuwenden, dem, im Falle von Hybrid-Bausteinen, der 2. Buchstabe H hinzufügen ist (z.B. SH für Blasenspeicher).

DESIGNATION OF OUTLINE DRAWING NUMBERS

COMPOSITION :

2 LETTERS, 1 NUMBER/SERIAL NUMBER

Examples : DP14/1
QP16/3

DESIGNATION :

FIRST LETTER : GENERAL SHAPE (see Type Nomenclature page 8)

SECOND LETTER : MATERIAL (see Type Nomenclature page 8)

FIRST NUMBER : NUMBER OF LEADS

SERIAL NUMBER (separated from the "leads number" by a stroke)

DÉSIGNATION DES DESSINS D'ENCOMBREMENTS

COMPOSITION :

2 LETTRES, 1 NUMÉRO/NUMÉRO DE SÉRIE

Exemples : DP14/1
QP16/3

SIGNIFICATION :

PREMIÈRE LETTRE : FORME GÉNÉRALE (voir Code de Désignation page 13)

DEUXIÈME LETTRE : MATÉRIAU (voir Code de Désignation page 13)

PREMIER NUMÉRO : NOMBRE DE SORTIES

NUMÉRO DE SÉRIE (séparé du "numéro du nombre de conducteurs" par un trait oblique)

BEDEUTUNG DER GEHÄUSEABMESSUNGENBEZEICHNUNGEN

ZUSAMMENSTELLUNG :

2 BUCHSTABEN, EINE NUMMER/SERIENNUMMER

Beispiele : DP14/1
QP16/3

BEDEUTUNG :

ERSTE BUCHSTABE : ALLGEMEINE FORM (Siehe Typenbezeichnung Seite 18)

ZWEITE BUCHSTABE : MATERIAL (Siehe Typenbezeichnung Seite 18)

ERSTE NUMMER : ZAHL DER ANSCHLUSSE

SERIENNUMMER (getrennt von "Anschlüssennummer" durch einen Strich)

Symbols

Symboles

Symbole

a	ATTENUATION	Atténuation	Dämpfung
A _I	CURRENT AMPLIFICATION	Amplification en courant	Stromverstärkung
A _V	VOLTAGE AMPLIFICATION	Amplification en tension	Spannungsverstärkung
A _{VC}	COMMON-MODE VOLTAGE AMPLIFICATION	Amplification en tension en mode commun	Gleichtaktspannungsverstärkung
A _{VD}	DIFFERENTIAL-MODE VOLTAGE AMPLIFICATION	Amplification en tension en mode différentiel	Differenz Spannungsverstärkung
ACC	AUTOMATIC CURRENT CONTROL	Contrôle automatique du courant	Automatische Stromkontrolle
AF	AUDIO FREQUENCY	Basse fréquence	Niederfrequenz
AFC	AUTOMATIC FREQUENCY CONTROL	Contrôle automatique de C.C. fréquence	Automatische Frequenzkontrolle
AGC	AUTOMATIC GAIN CONTROL	Contrôle automatique de gain	Automatische Verstärkungskontrolle
AM	AMPLIFICATION MODULATION	Modulation en amplitude	Amplitudenmodulation
AVC	AUTOMATIC VOLUME CONTROL	Contrôle automatique de volume	Automatische Lautstärkekontrolle
A _{VS}	SMALL SIGNAL VOLTAGE GAIN	Gain en tension (signaux faibles)	Spannungsverstärkung (keine Signale)
B	BANDWIDTH	Largeur de bande	Bandbreite
C _I	INPUT CAPACITANCE	Capacité à l'entrée	Eingangskapazität
C _L	LOAD CAPACITANCE	Capacité de charge	Lastkapazität
C _O	OUTPUT CAPACITANCE	Capacité à la sortie	Ausgangskapazität
d	DISTORTION	Distorsion	Verzerrung
DC _{VC}	DC VOLUME CONTROL	Contrôle de volume en DC	Gleichstromlautstärkekontrolle
DSB	DOUBLE-SIDE BAND	Double bandes latérales (DBL)	Zweiseitenband (system)
d _G	DIFFERENTIAL GAIN	Gain différentiel	Differenz-Verstärkung
d _{tot}	TOTAL DISTORTION	Distortion totale	Gesamtklirrfaktor
d _ψ	DIFFERENTIAL PHASE	Phase différentielle	Differenz-Phase
e _B	INPUT NOISE VOLTAGE	Tension de bruit ramenée à l'entrée	Eingangsrauschspannung
e _n	NOISE VOLTAGE	Force électromotrice de bruit	Rauschspannung
f	FREQUENCY	Fréquence	Frequenz
f ₁	FREQUENCY OF UNITY CURRENT TRANSFERT RATIO	Fréquence du rapport de transfert unité du courant (fréquence unité)	Frequenz bei Verstärkung 1
f _C	CUT-OFF FREQUENCY	Fréquence de coupure	Grenzfrequenz
f _I	INPUT FREQUENCY	Fréquence à l'entrée	Eingangsfrequenz
f _{mod}	MODULATION FREQUENCY	Fréquence de modulation	Modulationsfrequenz
f _{osc}	OSCILLATOR FREQUENCY	Fréquence d'oscillation	Oszillatorfrequenz
f _{rip}	RIPPLE FREQUENCY	Fréquence de l'ondulation résiduelle	Abklingsfrequenz
f _T	TRANSITION FREQUENCY	Fréquence de transition	Transitfrequenz
F	NOISE FIGURE	Facteur de bruit	Rauschzahl
FM	FREQUENCY MODULATION	Modulation de fréquence	Frequenzmodulation
G	GAIN	Gain	Verstärkung
G _P	POWER GAIN (LARGE SIGNAL)	Gain en puissance pour grands signaux	Leistungsverstärkung
G _V	VOLTAGE GAIN	Gain en tension	Spannungsverstärkung
h _{21e} =h _{fe}	SMALL-SIGNAL VALUE OF THE SHORT-CIRCUIT FORWARD CURRENT TRANSFER RATIO (IN COMMON-EMI EMITTER CONFIGURATION)	Valeur du rapport de transfert direct du courant, sortie en court-circuit pour de petits signaux (en montage émetteur commun)	Kleinsignal-Kurzschluss-Stromverstärkung (Emitterschaltung)
I	CURRENT	Courant	Strom
I _B	BASE CURRENT	Courant de base	Basisstrom

Symbols

Symboles

Symbole

I_C	COLLECTOR CURRENT (d.c.)	Courant de collecteur (continu)	Kollektorgleichstrom
I_{CBO}	COLLECTOR CUT-OFF CURRENT WITH $I_E=0, V_{CB}$ SPECIFIED	Courant résiduel du collecteur avec $I_E=0, V_{CB}$ spécifié	Kollektor Reststrom bei $I_E=0, V_{CB}$ spezifiziert
I_{CC}	SUPPLY CURRENT	Courant d'alimentation à vide	Speisestrom
I_{CEO}	COLLECTOR CUT-OFF CURRENT WITH $I_B=0, V_{CE}$ SPECIFIED	Courant résiduel du collecteur avec $I_B=0, V_{CE}$ spécifié	Kollektor Reststrom bei $I_B=0, V_{CE}$ spezifiziert
I_D	DRAIN CURRENT	Courant de drain	Drainstrom
I_{DSS}	DRAIN CURRENT (SOURCE SHORT- CIRCUITED TO GATE i.e. $V_{GS}=0$)	Courant de drain (avec $V_{GS}=0$)	Drainstrom (bei $V_{GS}=0$)
I_E	EMITTER CURRENT	Courant d'émetteur	Emitterstrom
I_F	FORWARD CURRENT	Courant direct	Durchlassstrom
I_{GSO}	GATE CUT-OFF CURRENT WITH $I_D=0, V_{GS}$ SPECIFIED	Courant résiduel de grille (avec $I_D=0$)	Gate Reststrom (bei $I_D=0$)
I_H	HOLDING CURRENT (OF A THYRISTOR)	Courant hypostatique (ou de maintien)(d'un thyristor)	Haltestrom (eines Thyristors)
I_I	INPUT CURRENT	Courant à l'entrée	Eingangsstrom
I_{IB}	BIAS CURRENT OF AN INPUT TERMINAL	Courant de polarisation d'une entrée	Vorspannungsstrom an einem Eingang
I_{ID}	DIFFERENTIAL INPUT CURRENT	Courant différentiel à l'entrée	Differenz-Eingangsspannung
I_{IO}	INPUT OFFSET CURRENT	Courant de décalage à l'entrée	Eingangsfehlerstrom
I_L	LOAD CURRENT	Courant dans la charge	Belastungsstrom
I_{LIM}	CURRENT LIMITING START	Courant limite de démarrage	Einsatz der Strombegrenzung
I_O	(AVERAGE) OUTPUT CURRENT	Courant moyen de sortie	Ausgangsstrom
I_{OB}	QUIESCENT (NO-SIGNAL) OUTPUT CURRENT	Courant de repos de sortie (en l'absence de signal)	Ausgangsruhestrom (kein-Signal)
I_{OD}	CONTINUOUS (DIRECT) OFF-STATE OUTPUT CURRENT	Courant continu de sortie à l'état bloqué	Ausgangssperrgleichstrom
I_{OM}	PEAK OUTPUT CURRENT	Courant de crête de sortie	Spitzenausgangsstrom
I_{st}	STABILISED CURRENT	Courant de stabilisation	Stabilisierter Strom
I_S	CURRENT CONSUMPTION	Courant consommé	Stromaufnahme
I_T	FORWARD ON-STATE CURRENT (OF A THYRISTOR)	Courant à l'état passant (d'un thyristor)	Zündstrom (eines Thyristors)
I_{tot}	TOTAL DRAIN CURRENT	Courant de drain	Gesamtdrainstrom
I_Z	ZENER CURRENT	Courant de zener	Zener-strom
I_F	INTERMEDIATE FREQUENCY	Fréquence moyenne	Zwischenfrequenz
CMR	COMMON-MODE REJECTION RATIO	Taux de réjection en mode commun	Gleichtaktunterdrückung
k_{OV}	OVERSHOOT FACTOR	Facteur de dépassement transi- toire	Uberschwingfaktor
S/N	SIGNAL-TO-NOISE RATIO	Rapport signal/bruit	Signal/Rausch Verhältnis
SVR	SUPPLY VOLTAGE REJECTION RATIO	Taux de réjection dû à une tension d'alimentation	Speisespannungsunterdrückung
K_{VH}	LONG TERM STABILITY	Stabilité dans le temps	Langzeitstabilität
K_{VI}	LINE REGULATION	Coefficient de régulation en fonction de la tension d'entrée	Eingangsspannungsregelung
K_{VO}	LOAD REGULATION	Coefficient de régulation en fonction de la charge	Lastregelung
L	LINEARITY	Linéarité	Linearität
$L_{m,c}$	LINEARITY AT MAXIMUM CONTRAST	Linéarité au contraste maximum	Maximumkontrastlinearität
m	MODULATION	Modulation	Modulation
MPX	MULTIPLEX	Multiplex	Multiplex
P	POWER DISSIPATION	Dissipation de puissance	Verlustleistung
P_O	OUTPUT POWER	Puissance de sortie	Ausgangsleistung
P_{tot}	TOTAL POWER DISSIPATION	Dissipation totale de puissance	Gesamtverlustleistung
PP	PEAK-TO-PEAK	Crête-à-crête	Spitze-Spitze

Symbols	Symboles	Symboles	Symboles
Q	QUALITY FACTOR	Facteur de qualité	Qualitätsfaktor
r_d	DIFFERENTIAL RESISTANCE	Résistance différentielle	Differenzieller Widerstand
r_f	DIFFERENTIAL FORWARD RESISTANCE	Résistance différentielle directe	Differenzieller durchlasswiderstand
r_{id}	DIFFERENTIAL INPUT RESISTANCE	Résistance différentielle à l'entrée	Differenzieller Eingangswiderstand
r_{od}	DIFFERENTIAL OUTPUT RESISTANCE	Résistance différentielle à la sortie	Differenzieller Ausgangswiderstand
r_{GS}	GATE-SOURCE RESISTANCE (d.c.)	Résistance grille-source (en continu)	Gate-source Widerstand (Gleichstrom)
R	EXTERNAL RESISTANCE	Résistance extérieure	Ausserer Widerstand
R_I	INPUT RESISTANCE	Résistance à l'entrée	Eingangswiderstand
R_L	LOAD RESISTANCE	Résistance de charge	Belastungswiderstand
R_O	OUTPUT RESISTANCE	Résistance à la sortie	Ausgangswiderstand
R_S	SOURCE RESISTANCE	Résistance à la source	Quellwiderstand
$R_{th(j-a)}$	THERMAL RESISTANCE, JUNCTION TO AMBIANT	Résistance thermique jonction-ambiante	Wärmewiderstand zwischen Sperrschicht und Umgebung
R_{VF}	RIPPLE REJECTION	Taux de filtrage	Welligkeitunterdrückung
r_Z	ZENER RESISTANCE	Résistance zener	Zener-Widerstand
RMS	ROOT MEAN SQUARE	Valeur efficace	Effektivwert
S	SENSITIVITY	Sensibilité	Empfindlichkeit
S_{AFC}	AFC SENSITIVITY	Sensibilité de l'AFC	AFC-Empfindlichkeit
S_I	INPUT SENSITIVITY	Sensibilité à l'entrée	Eingangsempfindlichkeit
S_{VOM}	MAXIMUM RATE OF CHANGE OF THE OUTPUT VOLTAGE	Pente maximale de la tension de sortie	Max. Änderungsrate der Ausgangsspannung
SR	SLEW RATE AT UNITY GAIN	Pente du signal de sortie au gain unitaire	Anstiegsflanke bei Einheitsverstärkung
SSB	SINGLE-SIDE BAND	Bande latérale unique (BLU)	Einseitenband (system)
t	TIME	Temps (durée)	Zeit (Dauer)
t_d	DELAY TIME	Retard à la croissance	Verzögerungszeit
t_{off}	TURN-OFF TIME	Temps total de coupure	Ausschaltzeit
t_{on}	TURN-ON TIME	Temps total d'établissement du courant	Einschaltzeit
t_{op}	OUTPUT PULSE DURATION	Durée de l'impulsion de sortie	Ausgangsimpulsdauer
t_{oss}	OUTPUT SHORT CIRCUIT DURATION	Durée du court-circuit à la sortie	Ausgangskurzschlussdauer
t_p	PULSE DURATION	Durée d'impulsion	Impulsdauer
t_r	RISE TIME	Temps de croissance	Anstiegszeit
t_R	RESPONSE TIME	Temps de réponse	Wiedergabezeit
t_{rip}	RIPPLE TIME	Temps de vacillement	Abklingzeit
t_s	CARRIER STORAGE TIME	Retard à la décroissance	Speicherzeit der Ladungsträger
t_{THL}	HIGH-TO-LOW TRANSITION DELAY TIME	Temps de transition, la sortie allant vers l'état bas	Uebergangszeit (von H nach L)
t_{TLH}	LOW-TO-HIGH TRANSITION DELAY TIME	Temps de transition, la sortie allant vers l'état haut	Uebergangszeit (von L nach H)
T_{amb}	AMBIENT TEMPERATURE	Température ambiante	Umgebungstemperatur
T_{case}	CASE TEMPERATURE	Température du boîtier	Gehäusetemperatur
$T_j = T_{(vj)}$	(VIRTUAL) JUNCTION TEMPERATURE	Température de jonction (virtuelle)	(Virtuelle) Sperrschichttemperatur
T_{oper}	OPERATING TEMPERATURE	Température de fonctionnement	Betriebstemperatur
TR	TRANSISTOR	Transistor	Transistor
V_{BE}	BASE-EMITTER VOLTAGE	Tension base-émetteur	Basis-Emitter-Spannung
$V_{(BR)}$	BREAKDOWN VOLTAGE	Tension de claquage	Durchbruchspannung

Symbols	Symboles	Symboles	Symboles
V_{CB}	COLLECTOR-BASE VOLTAGE	Tension collecteur-base	Kollektor-Basis-Spannung
V_{CBO}	COLLECTOR BASE VOLTAGE WITH $I_E = 0$	Tension collecteur-base avec $I_E = 0$	Kollektor-Basis-Sperrspannung bei offenem Emitter
V_{CC}	SUPPLY VOLTAGE	Tension d'alimentation	Speisespannung
V_{CCM}	PEAK SUPPLY VOLTAGE	Tension d'alimentation de crête	Spitzen speisespannung
V_{CE}	COLLECTOR-EMITTER VOLTAGE	Tension collecteur-émetteur	Kollektor-Emitter-Sperrspannung
V_{CEO}	COLLECTOR-EMITTER VOLTAGE WITH $I_B = 0$	Tension collecteur-émetteur avec $I_B = 0$	Kollektor-Emitter-Sperrspannung bei offener Basis
V_{CEsat}	COLLECTOR-EMITTER SATURATION VOLTAGE	Tension de saturation collecteur-émetteur	Kollektor-Emitter-Sättigungsspannung
V_{CK}	COLOUR KILLER VOLTAGE	Tension de "COLOUR KILLER"	COLOUR KILLER Spannung
V_{CMm}	MAXIMUM COMMON-MODE INPUT VOLTAGE	Tension d'entrée maximale en mode commun	Maximum Gleichtakteingangsspannung
V_{CS}	COLLECTOR SUBSTRATE VOLTAGE	Tension collecteur-substrat	Kollektor-Substratspannung
V_{DS}	DRAIN-SOURCE-VOLTAGE (OF A FET)	Tension drain-source (d'un TEC)	Drain-Source-Spannung (FET)
V_{DSS}	DRAIN VOLTAGE (SOURCE SHORT CIRCUITED TO GATE i.e. $V_{GS} = 0$) (OF A FET)	Tension de drain (avec $V_{GS} = 0$) (d'un TEC)	Drainspannung (bei $V_{GS} = 0$) (FET)
V_{EBO}	EMITTER-BASE VOLTAGE WITH $I_C = 0$	Tension émetteur-base, avec $I_C = 0$	Emitter-Basis-Sperrspannung, bei offenem Kollektor
V_F	FORWARD VOLTAGE (OF A DIODE)	Tension directe (d'une diode)	Durchlassspannung (einer Diode)
V_{GS}	GATE-SOURCE VOLTAGE (OF A FET)	Tension grille-source (d'un TEC)	Gate-source-Spannung (FET)
V_H	HOLDING VOLTAGE (OF A THYRISTOR)	Tension hypostatique (ou de maintien) (d'un thyristor)	Haltespannung (eines Thyristors)
V_I	INPUT VOLTAGE	Tension à l'entrée	Eingangsspannung
V_{IC}	COMMON-MODE INPUT VOLTAGE	Tension d'entrée en mode commun	Gleichtakteingangsspannung
V_{ID}	DIFFERENTIAL-MODE INPUT VOLTAGE	Tension d'entrée en mode différentiel	Differenzeingangsspannung
V_{Ilim}	INPUT VOLTAGE (AT WHICH LIMITING STARTS)	Tension d'entrée (pour la tension de sortie au coude de limitation)	Eingangsspannung für Begrenzungseinsatz
V_{IO}	INPUT OFFSET VOLTAGE	Tension de décalage à l'entrée	Eingangsfehlspeisung
V_{IPP}	INPUT VOLTAGE SWING	Dynamique d'entrée	Grösste Weite der Eingangsspannung
V_{IR}	REFERENCE INPUT VOLTAGE	Tension de référence à l'entrée	Referenzeingangsspannung
$V_{I(TO)}$	INPUT THRESHOLD VOLTAGE	Tension de seuil à l'entrée	Schwellenwert der Eingangsspannung
V_n	NOISE VOLTAGE	Tension de bruit	Rauschspannung
V_{NO}	OUTPUT NOISE VOLTAGE	Tension de bruit à la sortie	Rauchausgangsspannung
V_O	OUTPUT VOLTAGE	Tension de sortie	Ausgangsspannung
V_{OB}	QUIESCENT (NO-SIGNAL) OUTPUT VOLTAGE	Tension de sortie au repos (sans signal)	Ruhe (kein Signal) Ausgangsspannung
V_{OBu}	BURST SIGNAL OUTPUT VOLTAGE	Amplitude de la salve à la sortie	Burstsignalausgangsspannung
V_{OD}	DIFFERENTIAL OUTPUT VOLTAGE	Tension différentielle à la sortie	Differenz-Ausgangsspannung
V_{ODC}	COLOUR DIFFERENCE OUTPUT VOLTAGE	Amplitude des signaux de différence de couleur à la sortie	Spannung an den Farbdifferenz-signalausgängen
V_{OH}	HIGH-STATE STATIC VOLTAGE LEVEL AT THE OUTPUT	Tension de sortie pour l'état UN (HAUT)	Statischer HOCH (H)-Pegel am Ausgang
V_{OL}	LOW-STATE STATIC VOLTAGE LEVEL AT THE OUTPUT	Tension de sortie pour l'état ZERO (BAS)	Statischer TIEF (L)-Pegel am Ausgang
V_{OM}	PEAK OUTPUT VOLTAGE	Tension de sortie de crête	Spitzenausgangsspannung
V_{OPP}	MAX. OUTPUT VOLTAGE SWING	Dynamique de sortie maximale	Grösste Weite der Ausgangsspannung
V_R	REVERSE CONTINUOUS (DIRECT) VOLTAGE (OF A DIODE)	Tension inverse continue (d'une diode)	Gleichsperrspannung (einer Diode)

Symbols

Symboles

Symbole

V_{REF}	REFERENCE VOLTAGE	Tension de référence	Referenz-Spannung
V_{st}	STABILISED VOLTAGE	Tension stabilisée	Stabilisierte Spannung
V_T	CONTINUOUS (DIRECT) ON-STATE VOLTAGE (OF A THYRISTOR)	Tension continue à l'état passant (d'un thyristor)	Durchlassgleichspannung (eines Thyristors)
$V_{(TO)}$	THRESHOLD VOLTAGE	Tension de seuil	Schwellenspannung
V_{ϕ}	CLOCK VOLTAGE	Tension d'horloge	Taktspannung
V_{12}	FEEDBACK VOLTAGE	Tension de transfert inverse	Rückkopplungsspannung
Z_i	INPUT IMPEDANCE	Impédance d'entrée	Eingangsimpedanz
Z_{ic}	COMMON-MODE INPUT IMPEDANCE	Impédance d'entrée en mode commun	Gleichtakteingangsimpedanz
Z_{id}	DIFFERENTIAL INPUT IMPEDANCE	Impédance d'entrée différentielle	Differenzialeingangsimpedanz
Z_{is}	SINGLE INPUT IMPEDANCE	Impédance d'une entrée	Einzeleingangsimpedanz
Z_o	OUTPUT IMPEDANCE	Impédance de sortie	Ausgangsimpedanz
Z_{os}	SINGLE OUTPUT IMPEDANCE	Impédance d'une sortie	Einzelausgangsimpedanz
Z_{od}	DIFFERENTIAL OUTPUT IMPEDANCE	Impédance de sortie différentielle	Differenzialausgangsimpedanz
α	AM REJECTION	Réjection en AM	AM-Unterdrückung
α_V	TEMPERATURE COEFFICIENT OF VOLTAGE	Coefficient de température de la tension	Spannungstemperaturkoeffizient
α_{VO}	TEMPERATURE COEFFICIENT OF OUTPUT VOLTAGE	Coefficient de température de la tension de sortie	Temperaturkoeffizient der Ausgangsspannung
α_{VIO}	TEMPERATURE COEFFICIENT OF INPUT OFFSET VOLTAGE	Coefficient de température de la tension de décalage à l'entrée	Temperaturkoeffizient der Eingangsfehlspannung
α_{IIO}	TEMPERATURE COEFFICIENT OF INPUT OFFSET CURRENT	Coefficient de température du courant de décalage à l'entrée	Temperaturkoeffizient des Eingangsfehlstromes
$Y_{fs} = Y_{21s}$	SMALL-SIGNAL COMMON-SOURCE FORWARD TRANSFER ADMITTANCE WITH OUTPUT SHORT-CIRCUITED TO a.c.	Module de l'admittance de transfert direct, avec sortie en court-circuit pour de petits signaux, en montage source commune	Betrag der Kleinsignal-Transmittanz (Vorwärtssteilheit) in Source-Schaltung
n	EFFICIENCY	Rendement, efficacité	Wirkungsgrad

GLOSSARY

GLOSSAIRE

GLOSSAR

ACCURACY	précision	Genauigkeit
ADJUSTABLE	Ajustable	verstellbar, abgleichbar, regulierbar
AID	aide	Hilfe
AMPLIFIER	amplificateur	Verstärker
AMPLIFY, to	amplifier	verstärken
APPLICATION	application	Anwendung
ARRAY	assemblage	Anordnung, Gebilde
ASSOCIATED	associé	verbunden
ATTENUATOR	atténuateur	Dämpfungsteil
AUXILIARY	auxiliaire	zusätzlich
AVERAGE	(une valeur) moyenne	Durchschnitt, Mittel
BALANCE	équilibre, équilibrage	Waage, Gleichgewicht
BEAM	faisceau	Strahl
BIAS	polarisation	Polarisation
BLANK	vide, blanc	Füllung
BLANKING	suppression	Austasten
BRIGHTNESS	brillance	Helligkeit
BUCKET	seau, baquet ; adresse (ord.)	Eimer
BUFFER	tampon	Puffer
BUILT-IN	incorporé	eingebaut
BURST	salve	Burst
CANCEL, to	annuler	annullieren
CAPSTAN	cabestan, enrouleur	(Kabel)winde
CARRIER	support, (fréquence)porteuse	(Träger)frequenz
CATCH	dispositif d'arrêt	Sperrklinke
CEMENT, to	cimenter	zementieren
CHANGE	changement, modification	Aenderung, Wechsel
CHANGE-OVER	commutateur	Umschalter
CHANNEL	canal	Kanal
CIRCUIT	circuit	Schaltung, Schaltkreis
CLAMPING CIRCUIT	circuit de verrouillage	Sperrkreis
CLIP	support	Träger, Bügel
CLOCK	horloge	Uhr
CLOSE, to	fermer	schliessen
COIL	bobine	Spule, Windung
COINCIDENCE	coïncidence	Zusammentreffen
COLOR, COLOUR	couleur	Farbe
COLOUR KILLER	éliminateur de couleur	Farbenausschalter
COMBINATION	combinaison	Kombination
COMMUNICATION	télécommunications	Nachrichtenwesen
COMPARATOR	comparateur	Vergleicher
COMPENSATION	compensation	Ausgleichung, Ausgleich
COMPRISE, to	contenir	enthalten
CONDUCT, to	conduire	leiten, führen
CONNECT, to	connecter, brancher, relier	verbinden, schalten
CONNECTION	connexion	Anschluss, Verbindung
CONT., CONTINUED (of a text)	suite (d'un texte)	Fortsetzung (eines Textes)
CONVERSION	conversion, changement	Umkehrung, Umwandlung, Umformung
COPPER	cuivre	Kupfer

GLOSSARY

GLOSSAIRE

GLOSSAR

COUPLE, to	coupler, accoupler	koppeln, kuppeln
CROSS-TALK	diaphonie	übersprechen
CURRENT	courant	Strom
DEFLECTION	déflexion, déviation	Ablenkung
DELAY	retard	Verzögerung
DELAY LINE	ligne à retard	Verzögerungslinie
DELAY, to	retarder	verzögern, verschleppen, verschieben
DEMODULATOR	démodulateur	Demodulator
DEPENDENCE	dépendance	Abhängigkeit
DESIGN, to	concevoir, créer	zeichnen, entwerfen
DETECTOR	détecteur	Detektor
DEVIATION	déviation, dérivation	Ablenkung, Abweichung
DIFFERENCE	différence	Differenz
DIRECT (CURRENT)	direct, continu (courant)	direkt, unmittelbar, Gleich (Strom)
DISCRIMINATOR	discriminateur	Diskriminator, Frequenzgleichrichter
DIVIDE, to	diviser	Verteilen
DRIVE, to	commander	treiben, steuern
DRIVER	dispositif de commande	Treiber
DROP, to	tomber	abfallen, sinken
DUAL	double	zweifach, doppelt
EACH	chaque	jede
EMPLOY, to	employer, se servir de,	benutzen, gebrauchen
END	fin	Ende
ENERGIZE	alimenter, exciter	Speisen
ENHANCEMENT	enrichissement	Erhöhung
EQUIP, to	équiper	versehen mit
EQUIPMENT	équipement	Ausrüstung
ERASE, to	effacer, supprimer	auswischen
ERROR	erreur, écart	Fehler, Irrtum, Anzeigefehler
EXCEPT	excepté	ausgenommen
EXCLUDE, to	exclure	ausschliessen
FACILITIES	des usines ou moyens de production	Einrichtung
FED	alimenté	gespeist
FEED, to	alimenter	speisen
FEEDBACK	contreréaction	Rückkopplung
FIELD	champ	Feld
FIELD STRENGTH	intensité de champ	Feldstärke
FIRST	premier	erste
FLEXIBILITY	flexibilité, souplesse	Biegsamkeit, Elastizität
FLY-WHEEL	volant	Schwungrad
FLOATING (regulator)	charge à tension constante	erdfreier(Regler)
FOLLOW, to	suivre	folgen
FRAME	cadre, format, bâti	Chassis, Rahmen, Ständer
FREQUENCY	fréquence	Frequenz
FREQUENCY-MODULATION	modulation de fréquence	Frequenzmodulation
FRONT	devant, face	Ansicht, Front
FULL	plein, rempli	voll, gefüllt

GLOSSARY

GLOSSAIRE

GLOSSAR

GAIN	amplification, gain	Verstärkung
GANGING	accouplement mécanique	mecanische Kupplung
GATE	porte	Gatter
GENERATOR	générateur	Generator
GIVE, to	donner	geben
GRID	grille	Gitter
HALF	demi	halb
HANDLE, to	opérer, manier, traiter	handhaben, betätigen, führen, leiten
HEARING	ouïe, audition	Hören, Gehör
HEAT	chaleur	Wärme
HEATSINK	radiateur, dissipateur de chaleur	Wärmeableitung
HEATER VOLTAGE	tension de chauffage	Heizfadenspannung
HIGH	haut, élevé	hoch
IMMUNITY	immunité	Immunität
INCORPORATE, to	incorporer	umfassen
INDEPENDANT	indépendant	unabhängig
INDICATOR	indicateur	Indikator
INTERNAL	interne, intérieur	innere
INVERT, to	inverser, renverser	umkehren
INVERTER	convertisseur (continu-alternatif, onduleur, ...)	Inverter
LAST	dernier	letzte
LATCH	circuit à verrouillage	Verriegelung
LEAKAGE CURRENT	courant de fuite	Leckstrom
LEVEL	niveau	Stufe, Niveau, Pegel
LIMIT, to	limiter	Abgrenzen, beschränken
LINE	ligne	Linie, Leitung
LOAD	charge	Belastung, Last
LOOP, OPEN	boucle, ouverte	Schleife, offen
LOW	bas, faible	niedrig, tief, gering
MAINS	réseau, secteur	Netz
MATCH, to	adapter	anpassen, verbinden
MATRIX	matrice	Matrize
MEASURE, to	mesurer	messen
MIXER	mélangeur	Mischer
MODULATOR	modulateur	Modulator
MOST	la plupart, le plus	Meiste
MOUNTED ON	monté sur	montiert auf
NETWORK	réseau électrique	Netzwerk, Netz
NOISE	bruit	Lärm, Geräusch, Rauschen
OPERATE, to	opérer, fonctionner	betätigen, bedienen
OPERATION	fonctionnement, opération	Betrieb, Betätigung
OTHER	autre	andere
OUTLINES	encombrement des boîtiers	Aussenabmessungen, Gehäuseabmessungen

GLOSSARY

GLOSSAIRE

GLOSSAR

OUTPUT	sortie	Ausgang
OVERLOADING	surcharge	Ueberlastung
PACKAGE	boîtier	Gehäuse
PAIR	paire	Paar
PART	partie, composant	Teil
PEAK VALUE	valeur de crête	Scheitelwert
PICTURE TUBE	tube image	Bildröhre
PILOT SIGNAL	signal de pilotage	Steuerzeichen, Lotsensignal
PINNING	brochage	Anschlüsse
PLAYBACK, to	réenregistrer	überspielen
POINT	point	Punkt
POWER	puissance	Leistung, Vermögen
PROCESSING	traitement, transformation	Behandlung
PROVIDE, to	fournir, réaliser	verschaffen
PRODUCE, to	produire	erzeugen
PROTECTION	protection	Schutz
PULSE	impulsion	Impuls
PURPOSE	but, usage	Zweck
QUIESCENT VALUE	valeur de repos	Ruhewert
RANGE	étendue, gamme	Reichweite, Bereich
RATING	valeur limite	Grenzwert
RECORD, to	enregistrer	aufzeichnen, registrieren
RECORD PLAYER	phonographe	Schallplattenspieler
RECORDER	enregistreur	Registrierapparat
REGULATE, to	régler	Reglen
REGULATOR	régulateur	Regler
REJECTION	réjection	Unterdrückung
REMOTE	éloigné	entfernt
REPLACE, to	remplacer	ersetzen
REPLACEMENT	remplacement	Auswechslung, Ersatz
RIPPLE	ondulation	Welligkeit
SATISFY, to	satisfaire à	erfüllen
SATURATION	saturation	Sättigung
SAW-TOOTH	dent de scie	Sägezahn
SECTION	section	Abteilung, Schnitt
SELECTION	sélection	Selektion, Wahl
SELF-CENTERING	centrage automatique	automatische Zentrierung
SENSIVITY	sensibilité	Empfindlichkeit
SEPARATOR	séparateur	Scheider
SET	appareil, groupe	Gerät
SETTING	réglage	Einstellung
SHAPE	forme	Form
SHUTDOWN	fermeture	Verschluss
SHUTTER	obturateur	Verschluss
SIDE	côté	Seite
SINGLE	singulier, unique	Einfach

GLOSSARY

GLOSSAIRE

GLOSSAR

SMALL	petit	Klein
SOUND	son	Klang
SPEED	vitesse	Geschwindigkeit
SPOT	spot, tache lumineuse	Lichtmarke
SPREAD	étalement	Ausdehnung
SPREADER	spatule	Erweiterungsteil
STABILIZER	stabilisateur	Stabilisator
STAGE	étage	Stufe
STAND-BY CURRENT	courant de repos	Leerlaufstrom, Ruhestrom
STIR, to	agiter, remuer	rühren, bewegen
STRENGTH	résistance à, force	Stärke, Festigkeit
SUITABLE	approprié	geeignet
SUPPLY	alimentation, source de courant	Speisung
SUPPRESSION	suppression	Unterdrückung, Sperrung
SWITCH	interrupteur, commutateur	Schalter
SWITCH, to	commuter	schalten
SYNCHRONOUS	synchrone	synchron
TAPE	bande	Streifen, Band
TENSION	tension	Spannung
THRESHOLD	seuil	Schwelle
TIMING	chronométrage	Zeitbestimmung
TREBLE	fréquences ou sons élevés, aigus	Hochton
TRIGGER	déclenchement	Zünden
TRIPLE	triple	dreifach
TUBE	tube (électronique)	(Elektronen) Röhre
TUNER	syntonisateur, dispositif d'accord	Abstimmvorrichtung
UNLOADED	non chargé	unbelastet
UP TO	jusqu'à	bis
USE	emploi, utilisation	Anwendung
VALUE	valeur	Wert
VALVE	tube électronique	Elektronenröhre
VARIABLE	variable	veränderlich
VOLTAGE	tension	Spannung
WATCH	montre	Uhr
WIDEBAND	(à) large bande passante	Breitband
WRIST	poignet	Puls

CROSS REFERENCE LIST

In the event you only know the serial number of a device, it is possible to find with this list the relevant type number.

SERIAL NUMBER	P.E. PREFIX	P.E. DESIGNATION
0118	TDB	TDB0118
	TDC	TDC0118
	TDE	TDE0118

N.B. The third letter indicates the temperature range.

SERIAL NUMBER	P.E. PREFIX	SEE PAGE	SERIAL NUMBER	P.E. PREFIX	SEE PAGE
0084	TDB	93	0156	TDB	94
0084	TDC	93	0156	TDC	94
0084	TDE	93	0156	TDE	94
0111	TDB	111	0156A	TDB	94
0111	TDC	111	0156A	TDC	94
0111	TDE	111	0157	TDB	94
0117	TDB	107	0157	TDC	94
0117	TDC	107	0157	TDE	94
0117	TDE	107	0157A	TDB	94
0117T	TDB	107	0157A	TDC	94
0118	TDB	93	0158	TDB	94
0118	TDC	93	0158	TDC	94
0118	TDE	93	0158	TDE	94
0119	TDB	111	0246	TDD	81
0119	TDC	111	0324A	TBB	90
0119	TDE	111	0347	TDB	95
0123	TDB	107	0353	TDB	95
0123	TDC	107	0453A	TDB	111
0123	TDE	107	0555	TDB	135
0124	TDB	93	0555	TDC	135
0124	TDC	93	0555A/B	TDB	135
0124	TDE	93	0556A	TDB	135
0124A	TDB	93	0714	TDC	95
0124A	TDC	93	0723	TDC	108
0124A	TDE	93	0723/A	TDB	108
0139	TDB	111	0747	TBB	91
0139	TDC	111	0747	TBC	91
0139	TDE	111	0747A	TBB	91
0139A	TDB	111	0748	TBB	91
0146	TDB	94	0748	TBC	91
0146	TDC	94	0748B	TBB	91
0146	TDE	94	0791	TDB	95
0148	TDB	94	0791	TDC	95
0148	TDC	94	0820	TDA	121
0148	TDE	94	0820T	TDA	121
0149	TDB	94	1000	TUA	138
0149	TDC	94	1001	TEA	136
0149	TDE	94	1001A	TDA	121
0155	TDB	94	1001AT	TDA	121
0155	TDC	94	1001W	TFA	138
0155	TDE	94	1002	TEA	136
0155A	TDB	94	1002A	TDA	76
0155A	TDC	94	1003	UAA	139

CROSS REFERENCE LIST (CONTD)

Serial Number	P.E. Prefix	See Page	Serial Number	P.E. Prefix	See Page
1003A	TDA	114	1042P	TAB	90
1004	UAA	140			
1004A	TDA	76			
1005	TDA	121	1044	TDA	122
1005	UAC	141	1045	TDA	77
1005A	TDA	121	1045	TEA	137
1005AT	TDA	121	1046	TDA	87
1006A	TDA	114	1047	TDA	87
1007	TEA	136	1048	TDA	85
1008	TDA	121	1050	TDA	85
1008A	UAA	140	1054M	TDA	77
1009	TDA	76	1055	TDA	122
1009	TEA	136	1057	TDA	110
1009	UAA	140	1059B	TDA	114
1010	TDA	76	1059C	TDA	114
1010A	TDA	76	1060	TDA	122
1011	TDA	76	1060B	TDA	122
1011A	TDA	76	1061	TDA	123
1012	TDA	76	1062	TDA	123
1013	TDA	76	1068	TDA	123
1014	TEA	136	1069	TDA	123
1020	TEA	136	1072	TDA	123
1022	TDA		1073	TDA	123
1023	TDA	122	1074	TDA	124
1024	TDA	122	1077D	TDA	124
1025	TEB	96	1077P	TDA	124
1026	TEB	138	1081	TDE	115
1027	TEB	138	1082	TDA	124
1028	TDA	76	1083	TDA	87
1028	TEB	111	1085A	TDA	114
1029	TDA	77	1087	TEA	137
1029	TEA	137	1088	TDA	77
1030	TDB	135	1090	TDA	87
1030	TEA	137	1093A	TDA	124
1030A	TEA	137	1093B	TDA	124
1031	TEC	138	1096	TDA	124
1031K	TAB	117	1097	TDA	125
1032	TEC	138	1099	TDA	77
1033	TDB	135	1100	TDA	77
1034	TDA	93	1102	TDA	77
1034	TEA	105	1103	TDA	77
1034D	TDA	93	1146	TDB	108
1034N	TDA	93	1151	TDA	114
1034ND	TDA	93	1170	TDA	125
1035	TEA	137	1170S	TDA	125
1035T	TDA	85	1170SH	TDA	125
1035U	TEA	137	1180F	TDA	104
1037	TDA	77	1180P	TDA	104
1037D	TDA	77	1190	TDA	85
1040	UAA	140	1190Z	TDA	85
1041	TDA	114	1195	TDA	125
1041K	TAB	117	1200	TDA	83
1041W	TAB	117	1220	TDA	88
1042	TDA	77	1220A	TDA	88
1042D	TAB	90	1235	TDA	85

CROSS REFERENCE LIST (CONTD)

Serial Number	P.E. Prefix	See Page	Serial Number	P.E. Prefix	See Page
1270	TDA	125	1647	TDE	135
1331A	TBB	91	1905	TDA	78
1352A	TDA	98	1908	TDA	78
1352B	TDA	98	1908A	TDA	78
			1910	TDA	78
1405	TDA	107	1950	TDA	104
1410AH	TDA	112	1950F	TDA	104
1410AV	TDA	112	2000	TDA	126
1411	TEB	113	2000	TJA	138
1412	TDA	107	2000	UAA	140
1412	TEB	113	2001	UAA	140
1413	TEB	113	2002	UAA	140
1415	TDA	107	2002H	TDA	78
1416	TEB	113	2002V	TDA	78
			2003H	TDA	78
1418	TDA	107	2003V	TDA	78
1420AH	TDA	112	2004	TDA	79
1420AV	TDA	112	2005	TDA	79
1420LH	TDA	112	2006H	TDA	79
1420LV	TDA	112	2006V	TDA	79
			2008	TDA	79
1424	TDA	107	2010	TDA	79
1440	TBA	98	2010	UAA	140
1440G	TBA	98	2020	TDA	79
1441	TBA	98	2020D	TDA	79
1453	TAB	90	2022	TDB	95
1453A	TAB	90	2030H	TDA	80
1453W	TAB	90	2030V	TDA	80
1458	TBB	91	2033	TDB	135
1458	TBC	91	2048	TDA	88
1458B	TBB	91	2054M	TDA	80
1470	TDA	125	2110	TBA	118
1470A	TDA	125	2140	TDA	104
1510	TDA	78	2150	TDA	100
1512	TDA	78	2151	TDA	100
1533	TDA	126	2160	TDA	126
1540	TDA	126	2161	TDA	126
			2190	TDA	83
1550	TDA	126	2190F	TDA	83
			2310	TDA	80
			2331	TBB	91
			2331B	TBB	91
1580	TDA	126	2332	TBC	91
			2335	TBE	91
			2335B	TBE	91
			2510	TDA	97
1605S	TDD	108	2510Q	TDA	97
1606S	TDD	108	2520	TDA	102
1607	TDE	135	2520Q	TDA	102
1608S	TDD	108	2521	TDA	102
1610S	TDD	108	2522	TDA	103
1612S	TDD	108	2522Q	TDA	103
1615S	TDD	108	2523	TDA	103
1618S	TDD	108	2523Q	TDA	103
1624S	TDD	108	2524	TDA	103
1627	TDE	135	2530	TDA	103
1637	TDE	135	2530Q	TDA	103

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Serial Number	P.E. Prefix	See Page	Serial Number	P.E. Prefix	See Page
2532	TDA	103	2765	TAA	89
2532Q	TDA	103	2765A	TAA	89
2540	TDA	86	2790	TDA	83
2540Q	TDA	86	2791	TDA	83
2541	TDA	86	2795	TDA	
2541Q	TDA	86	2820	TDA	
2542	TDA	86	2840	TDA	83
2542Q	TDA	86	2841	TDA	83
2544	TDA	86	2870	TDA	80
2544Q	TDA	86	2890	TDA	131
2546	TDA	83	2900	TDB	108
2560	TDA	97	2901	TDF	111
2560Q	TDA	97	2902	TDF	95
2571	TDA	127	2904	TDF	95
2571A	TDA	127	2905	TDB	108
2571AQ	TDA	127	2905	TDC	108
2573A	TDA	127	2905A	TDB	108
2575A	TDA	127	2905A	TDC	108
2575AQ	TDA	127	2912	TDB	108
2576	TDA	127	2912	TDC	108
2576A	TDA	127	2915	TDB	108
2581	TDA	128	2915	TDC	108
2581Q	TDA	128	3000	UAA	141
2582	TDA	128	3002	TCA	93
2582Q	TDA	128	3030	TDA	131
2585	TDA	128	3081	TDA	112
2590	TDA	128	3082	TDA	112
2591	TDA	104	3083	TDA	112
2591Q	TDA	104	3083D	TDA	112
2591S	TDA	104	3089	TCA	82
2592	TDA	104	3189	TCA	82
2593	TDA	105	3190	TDA	83
2594	TDA	105	3300	TDA	131
2600	TDA	128	3302	TDF	111
2600Q	TDA	128	3310	TDA	113
2608	TDB	135	3403	TDB	95
2608	TDE	135	3403	TDC	95
2610A	TDA	80	3403	TDE	95
2611A	TDA	80	3410	TDA	81
2612	TDA	80	3500	TDA	131
2640	TDA	128	3501	TDA	131
2640Q	TDA	128	3510	TDA	132
2651	TDA	129	3520	TDA	132
2652	TDA	129	3540	TDA	86
2653	TDA	129	3540Q	TDA	86
2653A	TDA	129	3541	TDA	86
2654	TDA	129	3541Q	TDA	86
2655	TDA	129	3560	TDA	100
2655A	TDA	130	3570	TDA	101
2700	TDA	130	3650	TDA	132
2710	TDA	130	3770	TDA	132
2720 /2721	TDA	130			
2730	TDA	130			
2740	TDA	131			
2761	TAA	89			
2761A	TAA	89			
2762	TAA	89			

CROSS REFERENCE LIST (CONTD)

Serial Number	P.E. Prefix	See Page	Serial Number	P.E. Prefix	See Page
3780	TDA	133	7806	TDC	109
3950	TDA	101	7806T	TDB	109
3950A	TDA	101	7808	TDB	109
4050	TDA	133	7808	TDC	109
4180	TDA	133	7808T	TDB	109
4180P	TDA	133	7812	TDB	109
4200	TDA	84	7812	TDC	109
4260	TDA	81	7812T	TDB	109
4281T	TDA	88	7815	TDB	109
4282T	TDA	88	7815	TDC	109
4290	TDA	133	7815T	TDB	109
4331A	TBB	91	7818	TDB	109
4335A	TBE	91	7818	TDC	109
4400	TDA	98	7818T	TDB	109
4410	TDA	98	7824	TDB	109
4420	TDA	98	7824	TDC	109
4421	TDA	98	7824T	TDB	109
4422	TDA	98	9400	TDA	105
4430	TDA	133	9403	TDA	105
4431	TDA	134	9500	TDA	105
4432	TDA	134	9503	TDA	105
4433	TDA	134	9513	TDA	105
4440	TDA	98			
4450	TDA	98			
4500A	TCA	82			
4511	TCA	120			
4558	TDB	96			
4558	TDC	96			
4600	TDA	134			
4610	TDA	134			
4620	TDA	134			
4700	TDA	134			
4700A	TDA	134			
4761A	TAA	89			
4765A	TAA	89			
4920	TDA	81			
4942	TDA	84			
5500	TCA	120			
5500	TDA	99			
5550	TEA	88			
5560	TEA	84			
5600	TDA	99			
5610	TDA	99			
5611	TDA	99			
5700	TDA	88			
5700Q	TDA	88			
5800	TDA	99			
5820	TDA	99			
5850	TDA	99			
7270S	TDA	115			
7770	TDA	115			
7805	TDB	109			
7805	TDC	109			
7805T	TDB	109			
7806	TDB	109			

OPERATIONAL AMPLIFIERS

TAA495 OPERATIONAL AMPLIFIER
TAA521 OPERATIONAL AMPLIFIER
TAA521A OPERATIONAL AMPLIFIER
TAA522 OPERATIONAL AMPLIFIER
TAA761 OPERATIONAL AMPLIFIER
TAA761A OPERATIONAL AMPLIFIER
TAA761G OPERATIONAL AMPLIFIER
TAA761GG OPERATIONAL AMPLIFIER
TAA761K OPERATIONAL AMPLIFIER
TAA761W OPERATIONAL AMPLIFIER
TAA762 OPERATIONAL AMPLIFIER
TAA765 OPERATIONAL AMPLIFIER
TAA765A OPERATIONAL AMPLIFIER
TAA765G OPERATIONAL AMPLIFIER
TAA765GG OPERATIONAL AMPLIFIER
TAA765W OPERATIONAL AMPLIFIER
TAA861 OPERATIONAL AMPLIFIER
TAA861A OPERATIONAL AMPLIFIER
TAA861G OPERATIONAL AMPLIFIER
TAA861GG OPERATIONAL AMPLIFIER
TAA861W OPERATIONAL AMPLIFIER
TAA862 OPERATIONAL AMPLIFIER
TAA865 OPERATIONAL AMPLIFIER
TAA865A OPERATIONAL AMPLIFIER
TAA865G OPERATIONAL AMPLIFIER
TAA865GG OPERATIONAL AMPLIFIER
TAA865W OPERATIONAL AMPLIFIER
TAA2761 DUAL OPERATIONAL AMPLIFIER
TAA2761A DUAL OPERATIONAL AMPLIFIER
TAA2762 DUAL OPERATIONAL AMPLIFIER
TAA2765 DUAL OPERATIONAL AMPLIFIER
TAA2765A DUAL OPERATIONAL AMPLIFIER
TAA4761A QUAD OPERATIONAL AMPLIFIER
TAA4765A QUAD OPERATIONAL AMPLIFIER
TAB1042D QUAD PROGRAMMABLE OPERATIONAL AMPLIFIER
TAB1453 PNP OPERATIONAL AMPLIFIER.
TAB1453A PNP OPERATIONAL AMPLIFIER.
TAB1453W PNP OPERATIONAL AMPLIFIER.
TBA221 OPERATIONAL AMPLIFIER
TBA221A OPERATIONAL AMPLIFIER
TBA221B OPERATIONAL AMPLIFIER
TBA221G OPERATIONAL AMPLIFIER
TBA221GG OPERATIONAL AMPLIFIER
TBA221K OPERATIONAL AMPLIFIER
TBA221N OPERATIONAL AMPLIFIER
TBA221W OPERATIONAL AMPLIFIER

TBA222 OPERATIONAL AMPLIFIER
TBA222Q OPERATIONAL AMPLIFIER
TBA222S OPERATIONAL AMPLIFIER
TBA231A DUAL LOW NOISE OPERATIONAL AMPLIFIER
TBB0324A QUAD PNP OPERATIONAL AMPLIFIER
TBB0747 DUAL OPERATIONAL AMPLIFIER
TBB0747A DUAL OPERATIONAL AMPLIFIER
TBC0747 DUAL OPERATIONAL AMPLIFIER
TBB0748 OPERATIONAL AMPLIFIER
TBB0748NB OPERATIONAL AMPLIFIER
TBC0748 OPERATIONAL AMPLIFIER
TBB1331A OPERATIONAL AMPLIFIER
TBB1458 DUAL OPERATIONAL AMPLIFIER
TBB1458B DUAL OPERATIONAL AMPLIFIER
TBC1458 DUAL OPERATIONAL AMPLIFIER
TBB2331 DUAL OPERATIONAL AMPLIFIER
TBB2331B DUAL OPERATIONAL AMPLIFIER
TBC2332 DUAL OPERATIONAL AMPLIFIER
TBE2335 DUAL OPERATIONAL AMPLIFIER
TBE2335B DUAL OPERATIONAL AMPLIFIER
TBB4331A QUAD OPERATIONAL AMPLIFIER
TBE4335A QUAD OPERATIONAL AMPLIFIER
TCA220 TRIPLE OPERATIONAL AMPLIFIER
TCA220A TRIPLE OPERATIONAL AMPLIFIER
TCA311 OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA311A OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA311G OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA311GG OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA311W OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA312 OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA315 OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA315A OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA315G OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA315GG OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA315W OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA321 OPERATIONAL AMPLIFIER
TCA321A OPERATIONAL AMPLIFIER
TCA321G OPERATIONAL AMPLIFIER
TCA321GG OPERATIONAL AMPLIFIER
TCA321W OPERATIONAL AMPLIFIER
TCA322 OPERATIONAL AMPLIFIER
TCA325 OPERATIONAL AMPLIFIER
TCA325A OPERATIONAL AMPLIFIER
TCA325G OPERATIONAL AMPLIFIER
TCA325GG OPERATIONAL AMPLIFIER
TCA325W OPERATIONAL AMPLIFIER
TCA331 OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA331A OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA331G OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA331GG OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT
TCA331K OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT

SELECTION LIST

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TCA331W	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT	TDB0156-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA332	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT	-DP	J FET INPUT OPERATIONAL AMPLIFIERS
TCA335	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT	TDB0156A-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA335A	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT	TDC0156-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA335G	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT	TDC0156A-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA335GG	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT	TDE0156-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA335W	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT	TDB0157-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA520	OPERATIONAL AMPLIFIER	-DP	J FET INPUT OPERATIONAL AMPLIFIERS
TCA520B	OPERATIONAL AMPLIFIER	TDB0157A-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA520D	OPERATIONAL AMPLIFIER	TDC0157-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA3002-DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	TDC0157A-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TCA3002-DC	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	TDE0157-CM	J FET INPUT OPERATIONAL AMPLIFIERS
TDA1034	OPERATIONAL AMPLIFIER	TDB0158-CM	DUAL OPERATIONAL AMPLIFIERS
TDA1034D	OPERATIONAL AMPLIFIER	-DP	DUAL OPERATIONAL AMPLIFIERS
TDA1034N	OPERATIONAL AMPLIFIER	TDC0158-CM	DUAL OPERATIONAL AMPLIFIERS
TDA1034ND	OPERATIONAL AMPLIFIER	-DP	DUAL OPERATIONAL AMPLIFIERS
TDB0084	QUAD J-FET INPUT OPERATIONAL AMPLIFIER.	TDE0158-CM	DUAL OPERATIONAL AMPLIFIERS
TDC0084	QUAD J-FET INPUT OPERATIONAL AMPLIFIER.	-DP	DUAL OPERATIONAL AMPLIFIERS
TDE0084	QUAD J-FET INPUT OPERATIONAL AMPLIFIER.	TDB0347-DP	WIDE BANDWIDTH DUAL (353) QUADRUPLE (347)
TDB0118-CM	OPERATIONAL AMPLIFIER	TDB0353-CM	J-FET INPUT OPERATIONAL AMPLIFIERS.
TDC0118-CM	OPERATIONAL AMPLIFIER	-DP	J-FET INPUT OPERATIONAL AMPLIFIERS.
TDE0118-CM	OPERATIONAL AMPLIFIER	TDB0791-DP	POWER OPERATIONAL AMPLIFIERS
TDB0124-DP	QUADRUPLE OPERATIONAL AMPLIFIER	-EP/12	POWER OPERATIONAL AMPLIFIERS
TDB0124-FP	QUADRUPLE OPERATIONAL AMPLIFIER	-EP/14	POWER OPERATIONAL AMPLIFIERS
TDB0124A-DP	QUADRUPLE OPERATIONAL AMPLIFIER	-KM	POWER OPERATIONAL AMPLIFIERS
TDC0124-DG	QUADRUPLE OPERATIONAL AMPLIFIER	-SP	POWER OPERATIONAL AMPLIFIERS
-DP	QUADRUPLE OPERATIONAL AMPLIFIER	TDC0791-KM	POWER OPERATIONAL AMPLIFIERS
TDC0124A-DP	QUADRUPLE OPERATIONAL AMPLIFIER	TDB2022-CM	OPERATIONAL AMPLIFIER
TDE0124-DP	QUADRUPLE OPERATIONAL AMPLIFIER	TDF2902-DP	QUADRUPLE OPERATIONAL AMPLIFIERS.
TDE0124A-DP	QUADRUPLE OPERATIONAL AMPLIFIER	-FP	QUADRUPLE OPERATIONAL AMPLIFIERS.
TDB0146-DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	TDF2904-DP	DUAL OPERATIONAL AMPLIFIER.
TDB0146-2DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	TDB3403-DP	QUAD LOW POWER OPERATIONAL AMPLIFIERS.
TDC0146-DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	TDC3403-DP	QUAD LOW POWER OPERATIONAL AMPLIFIERS.
TDC0146-2DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	TDE3403-DP	QUAD LOW POWER OPERATIONAL AMPLIFIERS.
TDE0146-DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	TDB4558-CM	DUAL WIDE BAND OPERATIONAL AMPLIFIERS.
TDE0146-2DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	TDB4558-DP	DUAL WIDE BAND OPERATIONAL AMPLIFIERS.
TDB0148-DP	QUAD OPERATIONAL AMPLIFIERS.	TDC4508-CM	DUAL WIDE BAND OPERATIONAL AMPLIFIERS.
TDC0148-DP	QUAD OPERATIONAL AMPLIFIERS.	TEB1025-CM	WIDE BAND VIDEO OPERATIONAL AMPLIFIER.
TDE0148-DP	QUAD OPERATIONAL AMPLIFIERS.		
TDB0149-DP	QUAD OPERATIONAL AMPLIFIERS.		
TDC0149-DP	QUAD OPERATIONAL AMPLIFIERS.		
TDE0149-DP	QUAD OPERATIONAL AMPLIFIERS.		
TDB0155-CM	J FET INPUT OPERATIONAL AMPLIFIERS.		
-DP	J FET INPUT OPERATIONAL AMPLIFIERS		
TDB0155A-CM	J FET INPUT OPERATIONAL AMPLIFIERS		
TDC0155-CM	J FET INPUT OPERATIONAL AMPLIFIERS		
TDC0155A-CM	J FET INPUT OPERATIONAL AMPLIFIERS		
TDE0155-CM	J FET INPUT OPERATIONAL AMPLIFIERS		

APPLICATION & FUNCTION
SELECTION LIST

APPLICATIONS & FONCTIONS
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ANWENDUNGEN & FUNKTIONEN
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AUDIO AMPLIFIERS (LOW POWER)

TAA263 LOW-LEVEL AMPLIFIER
TAA480 LOW FREQUENCY AMPLIFIER
TAA611A AUDIO AMPLIFIER
TAA611B AUDIO AMPLIFIER
TAA611C AUDIO AMPLIFIER
TBA830R MICROPHONE AMPLIFIERS
TBA915 AM AMPLIFIER
TBA915G AM AMPLIFIER
TCA760B AUDIO AMPLIFIER
TDA1002A RECORDING PREAMPLIFIER CIRCUIT
TDA1054M PREAMPLIFIER
TDA2054M PREAMPLIFIER WITH ALC FOR MONO AND STEREO C_rO₂
TDA2054N CASSETTES RECORDERS
TDA2310 HI-FI DUAL AMPLIFIER
TDA3410 LOW NOISE DUAL PREAMPLIFIER
TDD0246 AMPLIFIER FOR DYNAMIC TELEPHONE-MICROPHONE.

AUDIO AMPLIFIERS (Power)

TAA320 MOST AMPLIFIER
TAA621 AUDIO AMPLIFIER
TBA641A AUDIO AMPLIFIER
TBA641B AUDIO AMPLIFIER
TBA800 AUDIO POWER AMPLIFIER
TBA800A AUDIO POWER AMPLIFIER
TBA810 AUDIO POWER AMPLIFIERS
TBA810A AUDIO POWER AMPLIFIERS
TBA810AP AUDIO POWER AMPLIFIERS
TBA810AS AUDIO POWER AMPLIFIERS
TBA810CB AUDIO POWER AMPLIFIERS
TBA810CBA AUDIO POWER AMPLIFIERS
TBA810P AUDIO POWER AMPLIFIERS
TBA810S AUDIO POWER AMPLIFIERS
TBA810SH AUDIO POWER AMPLIFIERS
TCA150KA POWER AF AMPLIFIER
TCA150KB POWER AF AMPLIFIER
TCA150NA POWER AF AMPLIFIER
TCA150NB POWER AF AMPLIFIER
TCA150NBT POWER AF AMPLIFIER
TCA830 AF POWER AMPLIFIER
TCA830A AF POWER AMPLIFIER
TCA830S AUDIO POWER AMPLIFIER WITH THERMAL SHUT-DOWN
TCA830SR AUDIO POWER AMPLIFIER WITH THERMAL SHUT-DOWN
TCA940 AUDIO POWER AMPLIFIER
TCA940E AUDIO POWER AMPLIFIER
TCA940N AUDIO POWER AMPLIFIER

TDA1004A AUDIO AMPLIFIER
TDA1009 2X6W STEREO AUDIO POWER AMPLIFIER
TDA1010 6W AUDIO POWER AMPLIFIER
TDA1010A 6W AUDIO POWER AMPLIFIER
TDA1011 2 to 6W AUDIO POWER AMPLIFIER
TDA1011A 2 to 6W AUDIO POWER AMPLIFIER
TDA1012 RECORDING/PLAY-BACK AND 2W AUDIO POWER AMPLIFIER.
TDA1013 4W AUDIO POWER AMPLIFIER WITH D.C. VOLUME CONTROL.
TDA1028 AUDIO SWITCH
TDA1029 AUDIO SWITCH
TDA1037 AF AMPLIFIER
TDA1037D AF AMPLIFIER
TDA1042 POWER AUDIO AMPLIFIER (10W-14V)
TDA1045 AF AMPLIFIER
TDA1088 TV SOUND CHANNEL 2-WATT OUTPUT
TDA1099-SP 2X10W LOW FREQUENCY STEREO AMPLIFIER.
TDA1100-SP POWER AUDIO AMPLIFIER 8 TO 20 W.
TDA1101-SP POWER AUDIO AMPLIFIER 8 TO 20 W.
TDA1102-SP POWER AUDIO AMPLIFIER 8 TO 20 W.
TDA1103-SP POWER AUDIO AMPLIFIER 8 TO 20 W.
TDA1510 24W BTL or 2X12W STEREO POWER AMPLIFIER.
TDA1512 12 TO 20 W HI-FI AUDIO POWER AMPLIFIER.
TDA1905 5W AUDIO POWER AMPLIFIER
TDA1908 8W AUDIO POWER AMPLIFIER
TDA1908A 8W AUDIO POWER AMPLIFIER
TDA1910 10W HI-FI AUDIO POWER AMPLIFIER
TDA2002H 8W CAR RADIO AUDIO AMPLIFIER
TDA2002V 8W CAR RADIO AUDIO AMPLIFIER
TDA2003H 10W CAR RADIO AUDIO AMPLIFIER
TDA2003V 10W CAR RADIO AUDIO AMPLIFIER
TDA2004 10+10W STEREO AMPLIFIER.
TDA2005 20W BRIDGE BOOSTER FOR CAR RADIO.
TDA2006A 10W-AUDIO POWER AMPLIFIER
TDA2006V 10W-AUDIO POWER AMPLIFIER
TDA2008 12W AUDIO AMPLIFIER.
TDA2010 HI-FI AUDIO POWER AMPLIFIER (12W) WITH SHORT
TDA2010A CIRCUIT PROTECTION AND THERMAL SHUT-DOWN
TDA2020/D HI-FI AUDIO POWER AMPLIFIER (20W) WITH SHORT
TDA2030H 14W HI-FI AUDIO POWER AMPLIFIER
TDA2030V 14W HI-FI AUDIO POWER AMPLIFIER
TDA2054M PREAMPLIFIER WITH ALC FOR MONO AND STEREO C_rO₂
TDA2054N CASSETTES RECORDERS
TDA2610A SOUND OUTPUT CIRCUIT
TDA2611A 5W HIGH SUPPLY VOLTAGE AUDIO POWER AMPLIFIER.
TDA2612 HI-FI POWER AMPLIFIER.
TDA2870 10W AF POWER AMPLIFIER.
TDA4260
TDA4920

SELECTION LIST

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RADIO

TAA570	LIMITER AMPLIFIER	TCA830	AF POWER AMPLIFIER
TAA611A	AUDIO AMPLIFIER	TCA830A	AF POWER AMPLIFIER
TAA611B	AUDIO AMPLIFIER	TCA830S	AUDIO POWER AMPLIFIER WITH THERMAL SHUT-DOWN
TAA611C	AUDIO AMPLIFIER	TCA830SR	AUDIO POWER AMPLIFIER WITH THERMAL SHUT-DOWN
TAA661A	FM-IF AMPLIFIER LIMITER AND DETECTOR	TDA1001A	INTERFERENCE ABSORPTION CIRCUIT.
TAA661B	FM-IF AMPLIFIER LIMITER AND DETECTOR	TDA1001AT	INTERFERENCE ABSORPTION CIRCUIT.
TAA991D	AM/FM IF-AMPLIFIER	TDA1004A	AUDIO AMPLIFIER
TAA991Q	AM/FM IF-AMPLIFIER	TDA1005	PHASED-LOCKED LOOP STEREO DECODER
TBA120AS	FM-IF AMPLIFIER WITH DEMODULATOR	TDA1005A	FREQUENCY MULTIPLEX PLL STEREO DECODER.
TBA120C	FM-IF AMPLIFIER WITH DEMODULATOR	TDA1005AT	FREQUENCY MULTIPLEX PLL STEREO DECODER.
TBA120CQ	FM-IF AMPLIFIER WITH DEMODULATOR	TDA1009	2X6W STEREO AUDIO POWER AMPLIFIER
TBA120D	FM-IF AMPLIFIER WITH DEMODULATOR	TDA1010	6W AUDIO POWER AMPLIFIER
TBA120DQ	FM-IF AMPLIFIER WITH DEMODULATOR	TDA1010A	6W AUDIO POWER AMPLIFIER
TBA120S	FM-IF AMPLIFIER WITH DEMODULATOR	TDA1011	2 to 6W AUDIO POWER AMPLIFIER
TBA120T	FM-IF AMPLIFIER WITH DEMODULATOR	TDA1011A	2 to 6W AUDIO POWER AMPLIFIER
TBA120U	FM-IF AMPLIFIER WITH DEMODULATOR	TDA1012	RECORDING/PLAY-BACK AND 2W AUDIO POWER AMPLIFIER.
TBA450N	STEREO DECODER	TDA1035T	SOUND CHANNEL IC FOR TV RECEIVER
TBA460	AM/FM IF- AND AF-AMPLIFIER	TDA1042	POWER AUDIO AMPLIFIER (10W-14V)
TBA460Q	AM/FM IF- AND AF-AMPLIFIER	TDA1046	AM AMPLIFIER
TBA570A	AM/FM RADIO RECEIVER CIRCUITS	TDA1047	FM-IF-AMPLIFIER CIRCUIT WITH DEMODULATOR
TBA570AQ	AM/FM RADIO RECEIVER CIRCUITS	TDA1048	AM AMPLIFIER
TBA641A	AUDIO AMPLIFIER	TDA1050	IC FOR CAR RADIO RF TO DETECTOR STAGE
TBA641B	AUDIO AMPLIFIER	TDA1055	STEREO DECODER
TBA700	AM/FM RADIO RECEIVER CIRCUIT	TDA1062	FM-TUNER
TBA750	LIMITER AMPLIFIER	TDA1068	NOISE INVERTER WITHIN THE AUDIO FREQUENCY UNIT FROM CAR RADIOS
TBA750B	LIMITER AMPLIFIER	TDA1072	AM RECEIVER CIRCUIT.
TBA750C	LIMITER AMPLIFIER	TDA1083	AM/FM AND AUDIO-CIRCUIT
TBA750CQ	LIMITER AMPLIFIER	TDA1090	SIGNAL PROCESSING SYSTEM
TBA750Q	LIMITER AMPLIFIER	TDA1093A	GENERATION OF TUNING VOLTAGE FOR FM-RECEIVERS.
TBA780	WIDE-BAND AMPLIFIER, FM DETECTOR	TDA1093B	GENERATION OF TUNING VOLTAGE FOR FM-RECEIVERS.
TCA150KA	POWER AF AMPLIFIER	TDA1099-SP	2X10W LOW FREQUENCY STEREO AMPLIFIER.
TCA150KB	POWER AF AMPLIFIER	TDA1190	COMPLETE TV SOUND CHANNEL
TCA150NA	POWER AF AMPLIFIER	TDA1190Z	COMPLETE TV SOUND CHANNEL
TCA150NB	POWER AF AMPLIFIER	TDA1200	FM-IF RADIO SYSTEM
TCA150NBT	POWER AF AMPLIFIER	TDA1220	AM-FM RADIORECEIVER SYSTEM
TCA290A	FM STEREO DECODER	TDA1220A	AM-FM RADIORECEIVER SYSTEM
TCA3089	COMPLETE IF-FM SYSTEM WITH AFC-ACC	TDA1235	SOUND CHANNEL FOR TV RECEIVERS.
TCA3189	FM-IF HIGH QUALITY RADIO SYSTEM	TDA1510	24W BTL or 2X12W STEREO POWER AMPLIFIER.
TCA420A	IF AMPLIFIER	TDA1580	ANALOGUE AUTOMATIC TUNING IN RADIO AND TV APPL.
TCA440	AM RECEIVER CIRCUIT	TDA1905	5W AUDIO POWER AMPLIFIER
TCA4500A	FM STEREO DEMODULATOR DESIGNED	TDA2002H	8W CAR RADIO AUDIO AMPLIFIER
TCA4500A	FM STEREO DEMODULATOR.	TDA2002V	8W CAR RADIO AUDIO AMPLIFIER
TCA4511	STEREO DECODER.	TDA2003H	10W CAR RADIO AUDIO AMPLIFIER
TCA5500	STEREO SOUND CONTROL SYSTEM.	TDA2003V	10W CAR RADIO AUDIO AMPLIFIER
TCA720	DC CONVERTER	TDA2004	10+10W STEREO AMPLIFIER.
TCA770	IF LIMITER AMPLIFIER	TDA2005	20W BRIDGE BOOSTER FOR CAR RADIO.
TCA770D	IF LIMITER AMPLIFIER	TDA2048	FOUR-STAGE CONTROLLED AM-BROAD-BAND AMPLIFIER.
		TDA2190	COMPLETE TV SOUND CHANNEL WITH V.C.R. AND C.C.C.
		TDA2190F	COMPLETE TV SOUND CHANNEL WITH V.C.R. AND C.C.C.

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TDA2540 IF AMPLIFIER AND SIGNAL PROCESSOR
TDA2540Q IF AMPLIFIER AND SIGNAL PROCESSOR
TDA2541 IF AMPLIFIER AND SIGNAL PROCESSOR
TDA2541Q IF AMPLIFIER AND SIGNAL PROCESSOR
TDA2542 TELEVISION IF AMPLIFIER AND DEMODULATOR.
TDA2542Q TELEVISION IF AMPLIFIER AND DEMODULATOR.
TDA2544 TELEVISION IF AMPLIFIER AND DEMODULATOR.
TDA2546 QUASI SPLIT SOUND CIRCUIT WITH 5,5 MHz DEMODULATOR
TDA2612 HIFI POWER AMPLIFIER.
TDA2790 TELEVISION SOUND COMBINATION.
TDA2791 TELEVISION SOUND COMBINATION.
TDA2840 IC CONCEPT FOR SOUND CHANNEL IN TV RECEIVERS.
TDA2870 LOW AF POWER AMPLIFIER.
TDA3190 COMPLETE TV SOUND CHANNEL.
TDA3540 TELEVISION IF AMPLIFIER AND DEMODULATOR.
TDA3540Q TELEVISION IF AMPLIFIER AND DEMODULATOR.
TDA3541 TELEVISION IF AMPLIFIER AND DEMODULATOR
TDA3541Q TELEVISION IF AMPLIFIER AND DEMODULATOR
TDA4200 FM-IF DEMODULATOR FOR AUTO RADIO.
TDA4281T QUASI PARALLEL SOUND CIRCUIT.
TDA4282T CONTROLLED AM-WIDE BAND AMPLIFIER
TDA4942 TV STEREO MATRIX WITH TONE CONTROL.
TDA5700 AM/FM RADIO RECEIVER.
TDA5700Q AM/FM RADIO RECEIVER.
TEA5550 AM CAR RADIO RECEIVER.
TEA5560 FM/IF SYSTEM.
UAA1009 TRAFFIC BROADCAST AREO DECODER CIRCUIT.
UAA2002 FREQUENCY SYNTHESIZER PRESCALER

TELEVISION

TAA621 AUDIO AMPLIFIER
TAA630S SYNCHRONOUS DEMODULATOR
TAA630T SYNCHRONOUS DEMODULATOR
TAA691 WIDE-BAND AMPLIFIER, FM DETECTOR
TBA1440 VIDEO-IF-AMPLIFIER
TBA1440G VIDEO-IF-AMPLIFIER
TBA1441 VIDEO-IF-AMPLIFIER
TBA2110 FSK DEMODULATOR
TBA311 TV SIGNAL PROCESSING CIRCUIT
TBA395 PAL TV CHROMINANCE PROCESSING UNIT
TBA395Q PAL TV CHROMINANCE PROCESSING UNIT
TBA396 LUMINANCE/CHROMINANCE COMBINATION
TBA396Q LUMINANCE/CHROMINANCE COMBINATION
TBA400 GAIN-CONTROLLED BROADBAND AMPLIFIER WITH
TBA400D SYMETRICAL INPUT AND OUTPUT
TBA440N VIDEO-IF-AMPLIFIER
TBA440P VIDEO-IF-AMPLIFIER
TBA510 CHROMINANCE COMBINATION
TBA510Q CHROMINANCE COMBINATION
TBA520 COLOUR DEMODULATOR
TBA520Q COLOUR DEMODULATOR
TBA530 RGB MATRIX PRE-AMPLIFIER
TBA530Q RGB MATRIX PRE-AMPLIFIER
TBA540 REFERENCE COMBINATION
TBA540Q REFERENCE COMBINATION
TBA550 TELEVISION SIGNAL PROCESSING CIRCUIT
TBA550Q TELEVISION SIGNAL PROCESSING CIRCUIT
TBA560B LUMINANCE AND CHROMINANCE CONTROL COMBINATION
TBA560BQ LUMINANCE AND CHROMINANCE CONTROL COMBINATION
TBA560C LUMINANCE AND CHROMINANCE CONTROL COMBINATION
TBA560CQ LUMINANCE AND CHROMINANCE CONTROL COMBINATION
TBA720A LINE OSCILLATOR CIRCUIT
TBA720AQ LINE OSCILLATOR CIRCUIT
TBA890 TELEVISION SIGNAL PROCESSING CIRCUIT
TBA890Q TELEVISION SIGNAL PROCESSING CIRCUIT
TBA920 HORIZONTAL COMBINATION
TBA920Q HORIZONTAL COMBINATION
TBA920S HORIZONTAL COMBINATION
TBA970 VIDEO AMPLIFIER
TBA970Q VIDEO AMPLIFIER
TBA990 COLOUR DEMODULATOR
TBA990Q COLOUR DEMODULATOR
TCA150KA POWER AF AMPLIFIER
TCA150KB POWER AF AMPLIFIER
TCA150NA POWER AF AMPLIFIER
TCA150NB POWER AF AMPLIFIER
TCA150NBT POWER AF AMPLIFIER

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TCA270	TELEVISION SIGNAL PROCESSING CIRCUIT	TDA2532	RGB MATRIX PREAMPLIFIER.
TCA270Q	TELEVISION SIGNAL PROCESSING CIRCUIT	TDA2532Q	RGB MATRIX PREAMPLIFIER.
TCA270S	TELEVISION SIGNAL PROCESSING CIRCUIT	TDA2560	LUMINANCE AND CHROMINANCE CONTROL COMBINATION
TCA270SQ	TELEVISION SIGNAL PROCESSING CIRCUIT	TDA2560Q	LUMINANCE AND CHROMINANCE CONTROL COMBINATION
TCA511	TV HORIZONTAL AND VERTICAL PROCESSOR	TDA2571A	HORIZONTAL SYNCHRONIZATION AND VERTICAL 625
TCA5500	STEREO SOUND CONTROL SYSTEM.	TDA2571AQ	DIVIDER SYSTEM
TCA640	CHROMINANCE AMPLIFIER FOR SECAM OR PAL/SECAM DECODERS	TDA2573A	HORIZONTAL OSCILLATOR COMBINATION
TCA650	CHROMINANCE DEMODULATOR FOR SECAM OR PAL/SECAM CHROMINANCE DEMODULATOR FOR SECAM OR PAL/SECAM	TDA2575A	HORIZONTAL SYNCHRONIZATION AND VERTICAL 525
TCA660B	CONTRAST, SATURATION AND BRIGHTNESS CONTROL CIRC.	TDA2575AQ	DIVIDER SYSTEM
TCA800	COLOUR DEMODULATOR	TDA2576	HORIZONTAL OSCILLATOR COMBINATION WITH VERTICAL DIVIDER
TDA1013	4W AUDIO POWER AMPLIFIER WITH D.C. VOLUME CONTROL.	TDA2576A	THYRISTOR CONTROL FOR TELEVISION RECEIVER
TDA1044	VERTICAL DEFLECTION CIRCUIT	TDA2585	LINE OSCILLATOR COMBINATION
TDA1061	ATTENUATOR TWO PART	TDA2590	HORIZONTAL COMBINATION
TDA1088	TV SOUND CHANNEL 2-WATT OUTPUT	TDA2591	HORIZONTAL COMBINATION
TDA1170	TV VERTICAL DEFLECTION SYSTEM	TDA2591Q	HORIZONTAL COMBINATION
TDA1170S	TV VERTICAL DEFLECTION SYSTEM	TDA2593	SYNCHRO AND HORIZONTAL DEFLECTION CONTROL
TDA1170SH	TV VERTICAL DEFLECTION SYSTEM	TDA2594	SYNCHRO AND HORIZONTAL DEFLECTION CONTROL
TDA1180F	TV HORIZONTAL PROCESSORS	TDA2600	VERTICAL DEFLECTION CIRCUIT
TDA1180P	TV HORIZONTAL PROCESSORS	TDA2600Q	VERTICAL DEFLECTION CIRCUIT
TDA1270	TV VERTICAL DEFLECTION SYSTEMS	TDA2610A	SOUND OUTPUT CIRCUIT
TDA1352A	TV VIDEO AMPLIFIER WITH GATED AGC	TDA2612	HIFI POWER AMPLIFIER.
TDA1352B	TV VIDEO AMPLIFIER WITH GATED AGC	TDA2640	SWITCHED-MODE POWER SUPPLY DRIVE CIRCUIT
TDA1470	COLOUR TV VERTICAL DEFLECTION SYSTEM.	TDA2640Q	SWITCHED-MODE POWER SUPPLY DRIVE CIRCUIT
TDA1470A	COLOUR TV VERTICAL DEFLECTION SYSTEM.	TDA2651	VERTICAL DEFLECTION IN TV RECEIVERS
TDA1550	FIXED VOLTAGE REGULATOR	TDA2652	VERTICAL DEFLECTION CIRCUIT
TDA1580	ANALOGUE AUTOMATIC TUNING IN RADIO AND TV APPL.	TDA2653/A	VERTICAL DEFLECTION CIRCUIT
TDA1905	5W AUDIO POWER AMPLIFIER	TDA2654	VERTICAL DEFLECTION CIRCUIT
TDA1910	10W HIFI AUDIO POWER AMPLIFIER	TDA2655	VERTICAL DEFLECTION CIRCUIT.
TDA1950	LINE CIRCUITS FOR TELEVISION RECEIVERS.	TDA2655A	VERTICAL DEFLECTION CIRCUIT
TDA1950F	LINE CIRCUITS FOR TELEVISION RECEIVERS.	TDA2890	AF VOLUME AND TONE CONTROL CIRCUIT FOR TELEVISION RECEIVERS.
TDA2140	PAL SUBCARRIER REFERENCE OSCILLATOR.	TDA3030	SECAM ADAPTER.
TDA2150	LUMINANCE AND CHROMINANCE AMPLIFIER	TDA3300	TV COLOUR PROCESSING SYSTEM.
TDA2151	LUMINANCE AND CHROMINANCE AMPLIFIER	TDA3500	VIDEO CONTROL COMBINATION
TDA2160	SYNCHRONOUS DEMODULATOR AND RGB MATRIX FOR COLOUR TV RECEIVERS.	TDA3501	VIDEO CONTROL COMBINATION.
TDA2161	SYNCHRONOUS DEMODULATOR and RGB MATRIX	TDA3510	PAL DECODER.
TDA2510	CHROMINANCE COMBINATION	TDA3520	SECAM DECODER.
TDA2510Q	CHROMINANCE COMBINATION	TDA3560	PAL DECODER.
TDA2520	COLOUR DEMODULATOR COMBINATION	TDA3570	NTSC DECODER.
TDA2520Q	COLOUR DEMODULATOR COMBINATION	TDA3650	VERTICAL DEFLECTION CIRCUIT
TDA2521	COLOUR DEMODULATOR COMBINATION	TDA3950	CHROMINANCE COMBINATION
TDA2522	COLOUR DEMODULATOR COMBINATION	TDA3950A	CHROMINANCE COMBINATION
TDA2522Q	COLOUR DEMODULATOR COMBINATION	TDA440	VIDEO IF AMPLIFIER WITH DEMODULATOR
TDA2523	COLOUR DEMODULATOR COMBINATION	TDA4400	VIDEO IF AMPLIFIER
TDA2523Q	COLOUR DEMODULATOR COMBINATION	TDA440S	TV receivers
TDA2524	COLOUR DEMODULATOR COMBINATIONS	TDA4410	VIDEO IF AMPLIFIER
TDA2530	RGB MATRIX with clamps.	TDA4420	VIDEO IF and AFC CIRCUIT
TDA2530Q	RGB MATRIX with clamps.	TDA4421	VIDEO IF and AFC CIRCUIT
		TDA4422	VIDEO IF and AFC CIRCUIT

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TDA4430	CONTROL CIRCUIT FOR AN AUTOMATIC TV-SEARCH TUNING AND AFC SYSTEM	<u>TELECOMMUNICATION</u>	TAA480	LOW FREQUENCY AMPLIFIER
TDA4431	CONTROL CIRCUIT FOR AN AUTOMATIC TV-SEARCH TUNING AND AFC SYSTEM		TAA970	MICROPHONE AMPLIFIER
TDA4432	TELEVISION TRANSMISSION IDENTIFICATION CIRCUIT		TAB101	RING(DE)MODULATOR
TDA4433	TV SIGNAL IDENTIFICATION CIRCUIT AND AFC INTERFACE.		TAB1041K	PUSH-PULL AMPLIFIER FOR USE IN HEARING AIDS.
TDA4440	VIDEO IF AMPLIFIER FOR COLOUR AND B/W TV RECEIVERS		TAB1041W	PUSH-PULL AMPLIFIER FOR USE IN HEARING AIDS.
TDA4450	VIDEO IF AMPLIFIER FOR COLOUR AND B/W TV RECEIVERS		TBA673	RING MODULATOR/DEMULATOR
TDA4620	AUTOMATIC CONTROL FOR HORIZONTAL DEFLECTION.		TBA830R	MICROPHONE AMPLIFIERS
TDA5500	TV VIDEO IF AMPLIFIER WITH VCR CONNECTIONS.		TBA915	AM AMPLIFIER
TDA5600	VIDEO IF AMPLIFIER WITH AFC OUTPUT		TBA915G	AM AMPLIFIER
TDA5610	VIDEO IF AMPLIFIER WITH AFC OUTPUT		TCA210	AF AMPLIFIER AND PREAMPLIFIER
TDA5611	VIDEO IF AMPLIFIER WITH AFC OUTPUT		TCA210D	AF AMPLIFIER AND PREAMPLIFIER
TDA5800	VIDEO IF CIRCUIT WITH AFC AND VCR CONNECTION.		TCA210T	AF AMPLIFIER AND PREAMPLIFIER
TDA5820	" " " " " " FOR CCIR AND FRENCH NORMS		TCA580	GYRATOR CIRCUIT
TDA5850	VIDEO AMPLIFIER WITH FRENCH-VCR AND IEC NORMS.		TCA980	MICROPHONE AMPLIFIER
TDA9400	LINE FREQUENCY CIRCUITS.		TCA980G	MICROPHONE AMPLIFIER
TDA9403	LINE FREQUENCY CIRCUITS.		TDA1077D	TWO-TONE GENERATOR FOR TELEPHONE DIALLING.
TDA9500	LINE FREQUENCY CIRCUITS.		TDA1077P	TWO-TONE GENERATOR FOR TELEPHONE DIALLING.
TDA9503	LINE FREQUENCY CIRCUITS.		TDA2054M	PREAMPLIFIER WITH ALC FOR MONO AND STEREO C _r O ₂ CASSETTES RECORDERS
TDA9513	LINE FREQUENCY CIRCUITS.		TDD0246	AMPLIFIER FOR DYNAMIC TELEPHONE-MICROPHONE.
TEA1002-SP	PAL COLOUR ENCODER AND VIDEO SUMMER.		TEA1045	TELEPHONE SUBSET AMPLIFIER
TEA1014	VIDEO AND AUDIO SIGNALS SWITCHING FOR THE PERI-TELEVISION PLUG			
TEA1020-SP	VERTICAL SWEEP FOR LARGE SCREEN COLOUR TV RECEIVERS.		<u>MOTOR SPEED REGULATORS</u>	
TEA1029	COMPLETE CHROMA PROCESSING FOR SECAM COLOUR TV-RECEIVERS.		TCA900	MOTOR SPEED REGULATORS.
TEA1030	COMPLETE VIDEO PROCESSING FOR COLOUR TV SETS.		TCA910	MOTOR SPEED REGULATORS.
TEA1030A	COMPLETE VIDEO PROCESSING FOR COLOUR TV SETS.		TCA955	MOTOR SPEED REGULATORS
TEA1034	LINE OSCILLATOR AND DARLINGTON CONTROL		TDA1003A	MOTOR REGULATOR AND BIAS/ERASE OSCILLATOR CIRCUIT.
TUA1000	U.S.W. TUNER		TDA1006A	MOTOR REGULATOR WITH AUTOMATIC TAPE-END INDICATOR.
TUA2000	U.H.F. TUNER		TDA1041	SPEED REGULATOR FOR DC MOTORS
UAA1008A-DP	TUNING SYSTEM LINEAR PROCESSOR CIRCUIT.		TDA1059B	PROTECTED SPEED REGULATOR FOR DC MOTORS
UAA190	ONSCREENING OF THE BARGRAPH IN TELEVISION PICTURE.		TDA1059C	PROTECTED SPEED REGULATOR FOR DC MOTORS
UAA2000	PHASE LOCKED LOOP CONTROL CIRCUIT.		TDA1085A	UNIVERSAL MOTOR SPEED CONTROLLER.
			TDA1151	MOTOR SPEED REGULATOR.
<u>VIDEO</u>			TDA1151-SP2	MOTOR SPEED REGULATOR
TDA2700	OSCILLATOR FOR VIDEO RECORDERS.		TDA7270S	MULTIFUNCTION SYSTEM FOR TAPE PLAYERS
TDA2710	CHROMINANCE SIGNAL/MIXER FOR VIDEO RECORDERS.		TDA7770	MULTIFUNCTION SYSTEM FOR TAPE RECORDERS
TDA2720	COLOUR SUB-CARRIER OSCILLATOR FOR VIDEO RECORDERS.		TDE1081	SPEED REGULATOR WITH AUTOMATIC STOP
TDA2720A	VIDEO RECORDERS.			
TDA2721	OSCILLATOR AND MIXER FOR VIDEO RECORDERS.			
TDA2730	FM LIMITER/DEMULATOR			
TDA2740	AMPLIFIER AND DROP-OUT DETECTOR			
TDA3770	VIDEO PROCESSOR FOR VIDEO RECORDERS.			
TDA3780	FM MODULATOR FOR VIDEO RECORDERS.			

VOLTAGE STABILIZERS

TAA550 VOLTAGE STABILIZER
TAA550A VOLTAGE STABILIZER
TAA550B VOLTAGE STABILIZER
TAA550C VOLTAGE STABILIZER
TAA550K VOLTAGE STABILIZER
TDA1057 VOLTAGE REGULATOR
TDA1550 FIXED VOLTAGE REGULATOR

VOLTAGE COMPARATORS

TDB0111-CM FET INPUT VOLTAGE COMPARATORS
TDB0111-KP FET INPUT VOLTAGE COMPARATORS
TDC0111-CM FET INPUT VOLTAGE COMPARATORS
TDE0111-CM FET INPUT VOLTAGE COMPARATORS
TDB0119-CM DUAL COMPARATORS
TDB0119-DP DUAL COMPARATORS
TDB0119-FP DUAL COMPARATORS
TDC0119-CM DUAL COMPARATORS
TDC0119-DC DUAL COMPARATORS
TDE0119-CM DUAL COMPARATORS
TDE0119-DP DUAL COMPARATORS
TDB0453A PNP INPUT COMPARATOR.
TDF2901 QUAD VOLTAGE COMPARATORS.
TDF3302 QUAD VOLTAGE COMPARATORS
TEB1028 DUAL VOLTAGE COMPARATOR.

MISCELLANEOUS

TAA320A MOST LEVEL SENSOR
TAA560 LEVEL DETECTOR
TAA721 DIFFERENTIAL BROADBAND AMPLIFIER
TAA722 DIFFERENTIAL BROADBAND AMPLIFIER
TAA775G POWER OSCILLATOR
TAA960 TRIPLE AMPLIFIER FOR ACTIVE FILTERS
TAB1031K PREAMPLIFIER FOR HEARING AIDS.
TBA331 GENERAL PURPOSE CIRCUIT
TBA470A GATE FOR ELECTRONIC ORGANS.
B GATE FOR ELECTRONIC ORGANS.
TBA940 CONTROLLED PULSE GENERATOR
TBA950 CONTROLLED PULSE GENERATOR
TBA950F CONTROLLED PULSE GENERATOR
TCA105 THRESHOLD SWITCHES
TCA105B THRESHOLD SWITCHES
TCA105BW THRESHOLD SWITCHES
TCA105W THRESHOLD SWITCHES
TCA205A THRESHOLD SWITCH
TCA205W THRESHOLD SWITCH
TCA205K PROXIMITY SWITCH.
TCA240 DOUBLE BALANCED MODULATOR/DEMULATOR.
TCA240D DOUBLE BALANCED MODULATOR/DEMULATOR.
TCA280A TRIGGER MODULE
TCA345A THRESHOLD SWITCH.
TCA350Z DELAY LINE FOR ANALOGUE SIGNALS
TCA450A HALL ELEMENT WITH DIFFERENTIAL AMPLIFIER
TCA530 VOLTAGE STABILIZER
TCA730 DC VOLUME AND BALANCE CONTROL CIRCUIT
TCA730A DC VOLUME AND BALANCE CONTROL CIRCUIT
TCA740 DC TONE CONTROL CIRCUIT
TCA740A DC TONE CONTROL CIRCUIT
TCA750 MULTISTABILIZER FOR ELECTRONIC TUNING
TCA750Q MULTISTABILIZER FOR ELECTRONIC TUNING
TCA780 PHASE CONTROL.
TCA820 DOUBLE BALANCED MODULATOR/DEMULATOR
TCA965 WINDOW DISCRIMINATOR
TDA0820 DOUBLE BALANCED MODULATOR/DEMULATOR.
TDA0820T DOUBLE BALANCED MODULATOR/DEMULATOR.
TDA1008 GATING/FREQUENCY DIVIDER FOR ELECTR.MUSICAL INSTR.
TDA1023 TRIAC TRIGGERING CIRCUIT ESPECIALLY SUITABLE FOR THE CONTROL OF PANEL HEATERS.
TDA1024 A MAINS-ZERO TRIAC-TRIGGERING CIRCUIT.
TDA1060 CONTROL CIRCUIT FOR SWITCHED-MODE POWER SUPPLIES.
TDA1060B CONTROL CIRCUIT FOR SWITCHED-MODE POWER SUPPLIES.
TDA1069 L.E.D. DRIVER
TDA1073 DC CONTROLLED ELECTRONIC POTENTIOMETER.

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TDA1074	DUAL ELECTRONIC DOUBLE POTENTIOMETER CIRCUIT.	UAA145	PHASE CUTTING DRIVER
TDA1082	DRIVER FOR EAST-WEST CORRECTION SYSTEM.	UAA146	PHASE CONTROL CIRCUIT
TDA1096	DUAL 256-STAGE BUCKET BRIGADE ANALOGUE DELAY LINE.	UAA170	IC FOR DRIVING LED ARRAYS (Light spot display)
TDA1097	1536-STAGE BUCKET-BRIGADE ANALOGUE DELAY LINE.	UAA170K	IC FOR DRIVING LED ARRAYS (Light spot display)
TDA1195	AF-SWITCHES	UAA170L	IC FOR DRIVING LED ARRAYS (Light spot display)
TDA1533	PLL MOTOR SPEED CONTROL CIRCUIT FOR HI-FI APPLICATIONS.	UAA180	IC FOR DRIVING LED DISPLAYS
TDA1540	14-BIT DAC WITH 85 dB S/N RATIO.	UAA1003	SPEECH GENERATOR WITH 7-SEGMENT. INPUT IN N-CHANNEL SILICON GATE TECHNOLOGY, MASK-PROGRAMMABLE FOR DIFFERENT LANGUAGES AND VOCABULARIES.
TDA2000	STEREO EQUALIZING AMPLIFIER SIGNAL SOURCE SWITCH AND AF CONTROL.	UAA1004-CM	ZERO VOLTAGE SWITCH
TDA2581	CONTROL CIRCUIT FOR SWITCHED-MODE POWER SUPPLIES.	-DP	ZERO VOLTAGE SWITCH
TDA2581Q	CONTROL CIRCUIT FOR SWITCHED-MODE POWER SUPPLIES.	UAA1040	AUTOMOTIVE DIRECTION INDICATOR.
TDA2582	CONTROL CIRCUIT FOR POWER SUPPLIES	UAA2001	SYNTHESIZER AMPLIFIER AND DRIVER
TDA2582Q	CONTROL CIRCUIT FOR POWER SUPPLIES	UAA2010	SYNTHESIZER AMPLIFIER AND DRIVER
TDA4050	INFRARED PREAMPLIFIER.	UAA3000	TIMER FOR CONTROL OF MAINS SUPPLIED RESISTIVE LOADS.
TDA4180	FRONT END AMPLIFIER FOR REMOTE CONTROL SYSTEMS	UAC1005	HIGH SPEED A/D CONVERTER.
TDA4180P	FRONT END AMPLIFIER FOR REMOTE CONTROL SYSTEMS		
TDA4290	DC CONTROL OF LOUDNESS, TUBLE AND BASS.		
TDA4600	CONTROL FOR SWITCHED-MODE POWER SUPPLIES.		
TDA4610	EAST-WEST CORRECTOR CIRCUIT.		
TDA4700	INTEGRATED CONTROL COMPONENTS FOR SINGLE-ENDED AND PUSH-PULL SWITCHING POWER SUPPLY DEVICES.		
TDA4700A	AND PUSH-PULL SWITCHING POWER SUPPLY DEVICES.		
TDB0555-CM	TIMER		
-DP	TIMER		
TDB0555A	TIMER		
TDC0555-CM	TIMER		
TDB0556A	DUAL TIMER		
TDB1030	ANALOG VOLTAGE AND BAND SWITCH		
TDB1033	PREAMPLIFIER FOR ULTRASONIC/INFRARED REMOTE CONTROL TRANSMISSION.		
TDE1607-CM	RELAY AND LAMP-DRIVER		
TDE1627-CM	RELAY AND LAMP-DRIVERS		
TDE1627-DP	RELAY AND LAMP-DRIVERS		
TDE1637-CM	RELAY AND LAMP-DRIVERS		
TDE1647-CM	RELAY AND LAMP-DRIVERS		
TDB2033	PREAMPLIFIER FOR REMOTE CONTROL SYSTEM.		
TDB2609-DP	ANALOG ADJUSTABLE TIMERS.		
TDE2608-DP	ANALOG ADJUSTABLE TIMERS.		
TEA1001-SP	SWITCH-MODE POWER SUPPLY CONTROL.		
TEA1007	PHASE CONTROL OF AC LOADS.		
TEA1009	PREAMPLIFIER FOR IR REMOTE CONTROL SYSTEMS.		
TEA1035-DP14	MULTI-CHANNELS AF STEREOPHONIC SWITCH		
TEA1035-DP18	MULTI-CHANNELS AF STEREOPHONIC SWITCH		
TEA1035-DP24	MULTI-CHANNELS AF STEREOPHONIC SWITCH		
TEA1035U	MULTI-CHANNELS AF STEREOPHONIC SWITCH		
TEA1087	HIGH CURRENT CASCADE AMPLIFIER UP TO 300 MHZ.		
TEB1026	LACH CIRCUIT FOR 8 RELAYS.		
TEB1027	RELAY CONTROL CIRCUIT		
TEC1031	RELAY DRIVERS.		
TEC1032	RELAY DRIVERS.		
TFA1001W	PHOTO DIODE WITH AMPLIFIER		

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			TYPE	page		
TAA						
TAA263	LOW LEVEL AMPLIFIER	74	CM4/1	341	PHIN	MBLE MULL
TAA320	INTEGRATED MOST AMPLIFIER	116	CM3/1	341	PHIN	MBLE RTC VAD
TAA320A	MOST LEVEL SENSOR	116	CM3/1	341	PHIN	MBLE MULL RTC VAD
TAA480	LOW FREQUENCY AMPLIFIER	74	CM10/2	342		VAD
TAA495	OPERATIONAL AMPLIFIER	89	FC6/2	355	TFKH	
TAA521	OPERATIONAL AMPLIFIER	89	CM8/1	342	PHIN	MBLE SIE
TAA521A	OPERATIONAL AMPLIFIER	89	DP14/1	346	SIE	
TAA522	OPERATIONAL AMPLIFIER	89	CM8/1	342	PHIN	MBLE SIE
TAA550	VOLTAGE STABILIZER	110	CM2/1	341	VAD	MBLE MULL PHIN RTC SGAI THCF
TAA550A	VOLTAGE STABILIZER	110	CM2/1	341	SGAI	THCF
TAA550B	VOLTAGE STABILIZER	110	CM2/1	341	SGAI	THCF
TAA550C	VOLTAGE STABILIZER	110	CM2/1	341	SGAI	THCF
TAA550K	VOLTAGE STABILIZER	110	CM2/1	341		THCF
TAA560	LEVEL DETECTOR	116	CM4/1	341	PHIN	MBLE THCF
TAA570	LIMITER AMPLIFIER	85	CM10/2	342	PHIN	MBLE PLSB
TAA611A	AUDIO AMPLIFIER	74	CM10/2	342	SGAI	
			QP14/4	358	SGAI	
TAA611B	AUDIO AMPLIFIER	74	QP14/4	358	SGAI	
TAA611C	AUDIO AMPLIFIER	74	RP14/1/2/3	361/2	SGAI	
TAA621	AUDIO AMPLIFIER	74	RP14/1	361	SGAI	
			RP14/2	362	SGAI	
			RP14/3	362	SGAI	
TAA630S	SYNCHRONOUS DEMODULATOR	102	DP16/3	348	VAD	FCHD
TAA630T	SYNCHRONOUS DEMODULATOR	102	QP16/4	360	VAD	FCHD
TAA661A	FM-IF AMPLIFIER-LIMITER AND DETECTOR	82	CM10/4	342	SGAI	
TAA661B	FM-IF AMPLIFIER-LIMITER AND DETECTOR	82	QP14/4	358	SGAI	PLSB
TAA691	WIDE BAND AMPLIFIER, FM DETECTOR, AUDIO AMPLIFIER/DRIVER	116	QP14/5	358	SGAI	
TAA721	DIFFERENTIAL BROAD-BAND AMPLIFIER	116	CM8/2	342	SIE	
TAA722	DIFFERENTIAL BROAD-BAND AMPLIFIER	116	CM8/2	342	SIE	
TAA761	OPERATIONAL AMPLIFIER	89	CM6/2	342	SIE	VAD
TAA761A	OPERATIONAL AMPLIFIER	89	DP6/1	344	SIE	VAD
TAA761G	OPERATIONAL AMPLIFIER	89	FP6/3	356	SIE	
TAA761GG	OPERATIONAL AMPLIFIER	89	FP6/4	356	SIE	
TAA761K	OPERATIONAL AMPLIFIER	89	u6/1	365	SIE	
TAA761W	OPERATIONAL AMPLIFIER	89	FP6/1	355	SIE	VAD
TAA762	OPERATIONAL AMPLIFIER	89	CM6/2	342	SIE	
TAA762S	OPERATIONAL AMPLIFIER	89	CM6/2	342	SIE	
TAA765	OPERATIONAL AMPLIFIER	89	CM6/2	342	SIE	VAD
TAA765A	OPERATIONAL AMPLIFIER	89	DP6/1	344	SIE	
TAA765G	OPERATIONAL AMPLIFIER	89	FP6/2	355	SIE	
TAA765GG	OPERATIONAL AMPLIFIER	89	FP6/4	356	SIE	
TAA765W	OPERATIONAL AMPLIFIER	89	FP6/1	355	SIE	
TAA775G	POWER OSCILLATOR	116	DP10/1	345	ITT	
TAA861	OPERATIONAL AMPLIFIER	89	CM6/2	342	SIE	TFKH VAD
TAA861A	OPERATIONAL AMPLIFIER	89	DP6/1	344	SIE	TFKH VAD
TAA861G	OPERATIONAL AMPLIFIER	89	FP6/3	356	SIE	
TAA861GG	OPERATIONAL AMPLIFIER	89	FP6/4	356	SIE	
TAA861W	OPERATIONAL AMPLIFIER	89	FP6/1	355	SIE	
TAA862	OPERATIONAL AMPLIFIER	89	CM6/2	342	SIE	
TAA865	OPERATIONAL AMPLIFIER	89	CM6/2	342	SIE	TFKH VAD
TAA865A	OPERATIONAL AMPLIFIER	89	DP6/1	344	SIE	TFKH
TAA865G	OPERATIONAL AMPLIFIER	89	FP6/3	356	SIE	
TAA865GG	OPERATIONAL AMPLIFIER	89	FP6/4	356	SIE	
TAA865W	OPERATIONAL AMPLIFIER	89	FP6/1	355	SIE	

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TAA960	TRIPLE AMPLIFIER FOR ACTIVE FILTERS	116	CM10/2	342	PHIN	MBLE MULL VAD
TAA970	MICROPHONE AMPLIFIER	116	CM10/2	342	PHIN	MBLE MULL VAD
TAA9910	AM/FM IF-AMPLIFIER	87	DP14/1	346	SIE	
TAA991Q	AM/FM IF-AMPLIFIER	87	QP14/1	358	SIE	
TAA2761	DUAL OPERATIONAL AMPLIFIER	89	CM8/2	342	SIE	
TAA2761A	DUAL OPERATIONAL AMPLIFIER	89	DP8/6	345	SIE	
TAA2762	DUAL OPERATIONAL AMPLIFIER	89	CM8/2	342	SIE	
TAA2765	DUAL OPERATIONAL AMPLIFIER	89	CM8/2	342	SIE	
TAA2765A	DUAL OPERATIONAL AMPLIFIER	89	DP8/6	345	SIE	
TAA4761A	QUAD OPERATIONAL AMPLIFIER	89	DP14/1	346	SIE	
TAA4765A	QUAD OPERATIONAL AMPLIFIER	89	DP14/1	346	SIE	
TAB						
TAB101	RING(DE)MODULATOR FOR TELEPHONY AND INDUSTRIAL EQUIPMENT	117	CM10/2	342		RTC
TAB1031K	HEARING-AID PREAMPLIFIER	117	u14/1	365	SIE	
TAB1041K	PUSH-PULL AMPLIFIER FOR HEARING AIDS	117	u8/1	365	SIE	
TAB1041W	PUSH-PULL AMPLIFIER FOR HEARING AIDS	117	FP8/4	356	SIE	
TAB1042D	QUAD PROGRAMMABLE OPERATIONAL AMPLIFIER	90	DG16/4	344	PLSB	
TAB1042P	QUAD PROGRAMMABLE OPERATIONAL AMPLIFIER	90	DP16/6	349	PLSB	
TAB1043	QUAD PROGRAMMABLE OPERATIONAL AMPLIFIER				PLSB	
TAB1044	QUAD PROGRAMMABLE OPERATIONAL AMPLIFIER				PLSB	
TAB1453	PNP OPERATIONAL AMPLIFIER	90	CM6/1	341	SIE	
TAB1453A	PNP OPERATIONAL AMPLIFIER	90	DP6/1	344	SIE	
TAB1453W	PNP OPERATIONAL AMPLIFIER	90	FP6/1	355	SIE	
TBA						
TBA120A	FM IF-AMPLIFIER AND DEMODULATOR	82	QP14/1	358	SIE	
TBA120AS	FM IF-AMPLIFIER AND DEMODULATOR	82	QP14/1	358	SIE	
TBA120C	FM IF-AMPLIFIER, LIMITER AND DETECTOR	82	DP14/5	346	MTLA	
TBA120CQ	FM IF-AMPLIFIER, LIMITER AND DETECTOR	82	QP14/7	359	MTLA	
TBA120D	FM IF-AMPLIFIER, LIMITER AND DETECTOR	82	DP14/5	346	MTLA	
TBA120DQ	FM IF-AMPLIFIER, LIMITER AND DETECTOR	82	QP14/7	359	MTLA	
TBA120S	FM IF-AMPLIFIER AND DEMODULATOR	82	DP14/1	346	MTLA	PLSB RTC TFKH
TBA120T	FM IF-AMPLIFIER AND DEMODULATOR	82	DP16/1	347	SIE	PLSB TFKH
TBA120U	FM IF-AMPLIFIER AND DEMODULATOR	82	DP16/1	347	SIE	PLSB TFKH
TBA221	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	CM8/1	342	SIE	MTLA
TBA221A	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	DP14/1	346		MTLA
TBA221B	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	DP8/1	344	SIE	MTLA
TBA221G	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	FP8/7	356	SIE	
TBA221GG	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	FP8/6	356	SIE	
TBA221K	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	u7/1	365	SIE	
TBA221N	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	CM8/1	342		MTLA
TBA221W	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	FP8/4	356	SIE	
TBA222	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	CM8/2	342	SIE	MTLA
TBA222Q	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	CM8/2	342	SIE	
TBA222S	DIFFERENTIAL OPERATIONAL AMPLIFIER	90	CM8/2	342	SIE	
TBA231A	DUAL AUDIO PREAMPLIFIER	90	DC14/6	343	SGAI	
			DP14/6	346	SGAI	
TBA281	VOLTAGE REGULATOR	107	CM10/4	342	PHIN	MBLE
			DP16/6	349	SGAI	
TBA311	TV SIGNAL PROCESSING CIRCUIT	106	QP16/1	359	SGAI	

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TBA331	GENERAL PURPOSE CIRCUIT	117	DP14/7	347	SGAI	
TBA395	PAL TV CHROMINANCE PROCESSING UNIT	100	DP14/5	346	MTLA	
TBA395Q	PAL TV CHROMINANCE PROCESSING UNIT	100	QP14/3	358	MTLA	
TBA396	DC CONTROLLED AMPLIFIER	100	DP14/5	346	MTLA	
TBA396Q	DC CONTROLLED AMPLIFIER	100	QP14/3	358	MTLA	
TBA400	GAIN-CONTROLLED BROAD-BAND AMPLIFIER	117	CM10/1	342	SIE	
TBA400D	GAIN-CONTROLLED BROAD-BAND AMPLIFIER	117	DP14/1	346	SIE	
TBA435	VOLTAGE REGULATOR	107	CM3/2	341	SGAI	PLSB
TBA440	GAIN CONTROLLED VIDEO IF-AMPLIFIER	98	DP16/1	347	SIE	
TBA440N	VIDEO IF-AMPLIFIER	98	DP16/1	347	SIE	PLSB
TBA440P	VIDEO IF-AMPLIFIER	98	DP16/1	347	SIE	PLSB
TBA450N	STEREO DECODER	117	DP16/1	347	SIE	
TBA460	AM/FM IF AND AF AMPLIFIER	82	DP16/1	347	SIE	
TBA460Q	AM/FM IF AND AF AMPLIFIER	82	QP		16/1	SIE
TBA470A	GATE FOR ELECTRONIC ORGANS	117	DP14/9	347	ITT	
TBA470B	GATE FOR ELECTRONIC ORGANS	117	QP14/8	359	ITT	
TBA510	CHROMINANCE COMBINATION	97	DP16/3	348	VAD	FCHD
TBA510Q	CHROMINANCE COMBINATION	97	QP16/4	360		FCHD
TBA520	COLOUR DEMODULATOR	102	DP16/3	348		FCHD MULL PLSB TFKH
TBA520Q	COLOUR DEMODULATOR	102	QP16/4	360	MULL	FCHD
TBA530	RGB MATRIX PRE-AMPLIFIER	102	DP16/3	348	VAD	PLSB RTC SIE TFKH
TBA530Q	RGB MATRIX PRE-AMPLIFIER	102	QP16/4	360	MULL	FCHD MBLE PHIN
TBA540	REFERENCE COMBINATION	102	DP16/2	347	MULL	FCHD MBLE PHIN PLSB RTC TFKH VAD
TBA540Q	REFERENCE COMBINATION	102	QP16/2	359	MULL	FCHD MBLE PHIN PLSB
TBA550	TELEVISION SIGNAL PROCESSING CIRCUIT	106	DP16/3	348	MULL	PLSB
TBA550Q	TELEVISION SIGNAL PROCESSING CIRCUIT	106	QP16/2	359	MULL	
TBA560B	LUMINANCE AND CHROMINANCE CONTROL COMBINATION	100	DP16/3	348	PHIN	MBLE
TBA560BQ	LUMINANCE AND CHROMINANCE CONTROL COMBINATION	100	QP16/4	360	PHIN	MBLE
TBA560C	LUMINANCE AND CHROMINANCE CONTROL COMBINATION	100	DP16/3	348	PHIN	FCHD MBLE MULL PLSB RTC TFKH VAD
TBA560CQ	LUMINANCE AND CHROMINANCE CONTROL COMBINATION	100	QP16/4	360	PHIN	FCHD MBLE MULL
TBA570A	AM/FM RADIO RECEIVER CIRCUIT	87	DP16/3	348	PHIN	MBLE MULL RTC VAD
TBA570AQ	AM/FM RADIO RECEIVER CIRCUIT	87	QP16/4	360	PHIN	MBLE MULL VAD
TBA625A	VOLTAGE REGULATOR	107	CM3/2	341	SGAI	PLSB
TBA625B	VOLTAGE REGULATOR	107	CM3/2	341	SGAI	PLSB
TBA625C	VOLTAGE REGULATOR	107	CM3/2	342	SGAI	PLSB
TBA641A	AUDIO AMPLIFIER	74	RP14/3	362		FCHD
			QP14/4	358		FCHD
TBA641B	AUDIO AMPLIFIER	74	RP14/1/2/3	361/2		FCHD
TBA673	RING MODULATOR/DEMODULATOR	117	CM10/1	342	MULL	MBLE PHIN PLSB RTC VAD
TBA700	AM/AF RADIO RECEIVER CIRCUIT	87	DP16/3	348	PHIN	MBLE MULL RTC
TBA720A	LINE OSCILLATOR CIRCUIT.	104	DP16/3	348	PHIN	MBLE RTC VAD
TBA720AQ	LINE OSCILLATOR CIRCUIT	104	QP16/4	360	PHIN	MBLE
TBA750	LIMITER AMPLIFIER	82	DP16/3	348		MULL
TBA750B	LIMITER AMPLIFIER	82	DP16/3	348		PLSB
TBA750C	LIMITER AMPLIFIER	82	DP16/3	348	PHIN	MBLE
TBA750CQ	LIMITER AMPLIFIER	82	QP16/4	360	PHIN	MBLE RTC
TBA750Q	LIMITER AMPLIFIER	82	QP16/4	360		MULL
TBA780	WIDE BAND AMPLIFIER, FM DETECTOR, AUDIO PREAMPLIFIER, DRIVER	85	QP14/6	358	SGAI	
			DP14/6	346	SGAI	

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TBA800	AUDIO POWER AMPLIFIER	74	RP12/1	361	SGAI	PLSB TFKH THCF
TBA800A	AUDIO POWER AMPLIFIER	74	RP12/2	361	THCF	
TBA810	POWER AF AMPLIFIER	74	RP12/2	361		RCA TFKH
TBA810A	POWER AF AMPLIFIER	74	RP12/1	361	TFKH	
TBA810ACB	POWER AF AMPLIFIER	74	RP12/2	361	SGAI	
TBA810AP	POWER AF AMPLIFIER	74	RP12/2	361	SGAI	
TBA810AS	POWER AF AMPLIFIER	74	RP12/2	361	SGAI	TFKH THCF
TBA810CB	POWER AF AMPLIFIER	74	RP12/4	361	SGAI	
TBA810P	POWER AUDIO AMPLIFIER	74	RP12/4	361	SGAI	THCF
TBA810S	POWER AF AMPLIFIER	74	RP12/2	361	SGAI	TFKH THCF
TBA810SH	POWER AF AMPLIFIER	74	RP12/1	361	HITJ	
TBA820	AUDIO AMPLIFIER	75	QP14/6	358	SGAI	THCF
TBA820-CM	AUDIO POWER AMPLIFIER	75	CM10/3	342	THCF	
TBA820M	MINIDIP AUDIO AMPLIFIER	75	DP8/9	345	SGAI	
TBA830R	MICROPHONE AMPLIFIER	75	CM4/1	341	SIE	
TBA890	TV SIGNAL PROCESSING CIRCUIT	106	DP16/3	348	PHIN	MBLE
TBA890Q	TV SIGNAL PROCESSING CIRCUIT	106	QP16/4	360	PHIN	MBLE
TBA915	AF AMPLIFIER	75	CM10/2	342	MULL	MBLE PHIN RTC VAD
TBA915G	AUDIO AMPLIFIER	75	SP9/2	363	PHIN	MBLE
TBA920	HORIZONTAL COMBINATION	104	DP16/3	348	VAD	FCHD MBLE MULL PHIN PLSB RCA RTC THCF
TBA920Q	HORIZONTAL COMBINATION	104	QP16/4	363	PHIN	FCHD MBLE MULL RCA THCF
TBA920S	HORIZONTAL COMBINATION	104	DP16/3	348	VAD	PHIN THCF
TBA940	CONTROLLED PULSE GENERATOR	117	DP14/1	346	ITT	PLSB
TBA950	CONTROLLED PULSE GENERATOR	117	DP14/1	346	ITT	PLSB
TBA950F	CONTROLLED PULSE GENERATOR	117	DP14/1	346	ITT	
TBA970	VIDEO AMPLIFIER	97	DP16/3	348	VAD	FCHD RTC
TBA970Q	VIDEO AMPLIFIER	97	QP16/3	360		FCHD
TBA990	COLOUR DEMODULATOR	102	DP16/3	348	VAD	MULL PLSB TFKH
TBA990Q	COLOUR DEMODULATOR	102	QP16/4	363		MULL
TBA1440	VIDEO IF AMPLIFIER	98	DP16/1	347	SIE	
TBA1440G	VIDEO IF AMPLIFIER	98	DP16/1	347	SIE	THCF
TBA1441	VIDEO IF AMPLIFIER	98	DP16/1	347	SIE	THCF
TBA2110	FSK DEMODULATOR (frequency detection in PCM Remote Control gate for TV applications)	118	DP14/5	346	MTLA	

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TBB						
TBB0324A	ARRAY OF FOUR OPERATIONAL AMPLIFIER S	91	DP14/1	346	SIE	
TBB0747	DUAL OPERATIONAL AMPLIFIER	91	CM10/1	342	SIE	THCF
TBB0747A	DUAL OPERATIONAL AMPLIFIER	91	DP14/1	346	SIE	
TBB0748	OPERATIONAL AMPLIFIER	91	CM8/1	342	SIE	MTLA THCF
TBB0748B	OPERATIONAL AMPLIFIER	91	DP8/6	345	SIE	
TBB1331A	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT	91	DP6/1	344	SIE	
TBB1458	DUAL OPERATIONAL AMPLIFIER	91	CM8/1	342	SIE	MTLA THCF
TBB1458B	DUAL OPERATIONAL AMPLIFIER	91	DP8/6	345	SIE	MTLA
TBB2331	DUAL OPERATIONAL AMPLIFIER	91	CM8/2	342	SIE	
TBB2331B	DUAL OPERATIONAL AMPLIFIER	91	DP8/6	345	SIE	
TBB4331A	QUAD OPERATIONAL AMPLIFIER	91	DP14/1	346	SIE	
TBC						
TBC0747	DUAL OPERATIONAL AMPLIFIER	91	CM10/1	342	SIE	
TBC0748	OPERATIONAL AMPLIFIER	91	CM8/1	342	SIE	
TBC1458	DUAL OPERATIONAL AMPLIFIER	91	CM8/1	342	SIE	MTLA
TBC2332	DUAL OPERATIONAL AMPLIFIER	91	CM8/2	342	SIE	
TBE						
TBE2335	DUAL OPERATIONAL AMPLIFIER	91	CM8/2	342	SIE	
TBE2335B	DUAL OPERATIONAL AMPLIFIER	91	DP8/6	345	SIE	
TBE4335A	QUAD OPERATIONAL AMPLIFIER	91	DP14/1	346	SIE	

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TCA						
TCA105	THRESHOLD SWITCH	118	DP6/1	344	SIE	
TCA105B	THRESHOLD SWITCH	118	DP6/1	344	SIE	
TCA105BW	THRESHOLD SWITCH	118	FC6/1	355	SIE	
TCA105W	THRESHOLD SWITCH	118	FC6/1	355	SIE	
TCA150KA	POWER AF AMPLIFIER	75	RP14/1	361	THCF	
TCA150KB	POWER AF AMPLIFIER	75	RP14/1	361	THCF	
TCA150NA	POWER AF AMPLIFIER	75	RP14/1	361	THCF	
TCA150NB	POWER AF AMPLIFIER	75	RP14/2	361	THCF	
TCA150NBT	POWER AF AMPLIFIER	75	RP14/2	361	THCF	
TCA205A	THRESHOLD SWITCH	118	DP14/1	346	SIE	
TCA205K	PROXIMITY SWITCH	118	μ14/1	365	SIE	
TCA205W	THRESHOLD SWITCH	118	FP8/4	356	SIE	
TCA210	AF AMPLIFIER AND PRE-AMPLIFIER	118	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA210D	AF AMPLIFIER AND PRE-AMPLIFIER	118	GP14/1	357		RTC VAD
TCA210T	AF AMPLIFIER AND PRE-AMPLIFIER	118	FP14/2	356	PHIN	MBLE
TCA220	TRIPLE OPERATIONAL AMPLIFIER	91	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA220A	TRIPLE OPERATIONAL AMPLIFIER	91	DC16/6	343	PHIN	MBLE
TCA240	DOUBLE BALANCED MODULATOR/DEMODULATOR	118	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA240D	DOUBLE BALANCED MODULATOR/DEMODULATOR	118	FP16/2	356	PHIN	MBLE RTC VAD
TCA270	TV SIGNAL PROCESSING CIRCUIT	106	DP16/2	347		PLSB RTC
TCA270Q	TV SIGNAL PROCESSING CIRCUIT	106	QP16/2	359		RCA
TCA270S	TV SIGNAL PROCESSING CIRCUIT	106	DP16/2	347	PHIN	ITT MBLE MULL RCA
TCA270SQ	TV SIGNAL PROCESSING CIRCUIT	106	QP16/2	359	MULL	MBLE PHIN
TCA280A	TRIGGER MODULE	118	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA290A	FM STEREO DECODER	118	DP16/3	348	VAD	MBLE PHIN
TCA311	OPERATIONAL AMPLIFIER	92	CM6/2	342	SIE	
TCA311A	OPERATIONAL AMPLIFIER	92	DP6/1	344	SIE	
TCA311G	OPERATIONAL AMPLIFIER	92	FP6/3	356	SIE	
TCA311GG	OPERATIONAL AMPLIFIER	92	FP6/4	356	SIE	
TCA311W	OPERATIONAL AMPLIFIER	92	FP6/1	355	SIE	
TCA312	OPERATIONAL AMPLIFIER	92	CM6/2	342	SIE	
TCA315	OPERATIONAL AMPLIFIER	92	CM6/2	342	SIE	
TCA315A	OPERATIONAL AMPLIFIER	92	DP6/1	344	SIE	
TCA315G	OPERATIONAL AMPLIFIER	92	FP6/3	356	SIE	
TCA315GG	OPERATIONAL AMPLIFIER	92	FP6/4	356	SIE	
TCA315W	OPERATIONAL AMPLIFIER	92	FP6/1	355	SIE	
TCA321	OPERATIONAL AMPLIFIER	92	CM6/2	342	SIE	
TCA321A	OPERATIONAL AMPLIFIER	92	DP6/1	344	SIE	
TCA321G	OPERATIONAL AMPLIFIER	92	FP6/3	356	SIE	
TCA321GG	OPERATIONAL AMPLIFIER	92	FP6/4	356	SIE	
TCA321W	OPERATIONAL AMPLIFIER	92	FP6/1	355	SIE	
TCA322	OPERATIONAL AMPLIFIER	92	CM6/2	342	SIE	
TCA325	OPERATIONAL AMPLIFIER	92	CM6/2	342	SIE	
TCA325A	OPERATIONAL AMPLIFIER	92	DP6/1	344	SIE	
TCA325G	OPERATIONAL AMPLIFIER	92	FP6/3	356	SIE	
TCA325GG	OPERATIONAL AMPLIFIER	92	FP6/4	356	SIE	
TCA325W	OPERATIONAL AMPLIFIER	92	FP6/1	355	SIE	
TCA331	OPERATIONAL AMPLIFIER	92	CM6/2	342	SIE	
TCA331A	OPERATIONAL AMPLIFIER	92	DP6/1	344	SIE	
TCA331G	OPERATIONAL AMPLIFIER	92	FP6/3	356	SIE	
TCA331GG	OPERATIONAL AMPLIFIER	92	FP6/4	356	SIE	
TCA331W	OPERATIONAL AMPLIFIER	92	FP6/1	351	SIE	
TCA331K	OPERATIONAL AMPLIFIER	92	μ6/1	365	SIE	
TCA332/335	OPERATIONAL AMPLIFIER	92	CM6/2	342	SIE	
TCA335A	OPERATIONAL AMPLIFIER	92	DP6/1	344	SIE	
TCA335G	OPERATIONAL AMPLIFIER	92	FP6/3	356	SIE	

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TCA335GG	OPERATIONAL AMPLIFIER	92	FP6/4	356	SIE	
TCA335W	OPERATIONAL AMPLIFIER	92	FP6/1	355	SIE	
TCA345A	THRESHOLD SWITCH	118	DP4/1	344	SIE	
TCA350Z	DELAY LINE FOR ANALOG AF SIGNALS	119	DP8/10	345	ITT	
TCA420A	IF AMPLIFIER	85	DP16/3	348	VAD	MBLE MULL PHIN RTC
TCA440	AM-RECEIVER CIRCUIT	119	DP16/1	347	SIE	
TCA450A	HALL ELEMENT WITH DIFFERENTIAL AMPLIFIER	119	GP14/1	358		VAD
TCA511	TV HORIZONTAL AND VERTICAL PROCESSOR	119	DP16/7	349	SGAI	
TCA520	OPERATIONAL AMPLIFIER	92	CM8/1	342		MULL
TCA520B	OPERATIONAL AMPLIFIER	92	DP8/2	345	PHIN	MBLE RTC VAD
TCA520D	OPERATIONAL AMPLIFIER	92	FP6/2	355	PHIN	MBLE RTC VAD
TCA530	VOLTAGE STABILIZER FOR ELECTRONIC TUNING	119	DP16/3	348	VAD	MBLE MULL PHIN
TCA580	GYRATOR CIRCUIT	119	DP16/15	350	PHIN	MBLE MULL
TCA640	CHROMINANCE AMPLIFIER	100	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA650	CHROMINANCE AMPLIFIER	102	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA660B	CONTROL CIRCUIT FOR COLOUR DIFFERENCE AND LUMINANCE SIGNAL	100	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA671	TRANSISTOR-ARRAY WITH 5 NPN TRANSISTORS.	112	DP14/1	346	SIE	
TCA700Y	CAR VOLTAGE REGULATOR	107	SP3/5	363	ITT	
TCA720	DC CONVERTER	119	GP4/1	357	ITT	
TCA730	DC VOLUME AND BALANCE CONTROL UNIT	119	DP16/3	348		MULL
TCA730A	DC VOLUME AND BALANCE CONTROL UNIT	119	DP16/3	348	VAD	MBLE MULL PHIN RTC
TCA740	DC TONE CONTROL CIRCUIT	119	DP16/3	348	MULL	
TCA740A	DC TONE CONTROL CIRCUIT	119	DP16/3	348	VAD	MBLE MULL PHIN RTC
TCA750	MULTI-STABILIZER FOR ELECTRONIC TUNING	119	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA750Q	MULTI-STABILIZER FOR ELECTRONIC TUNING	119	QP16/4	360	PHIN	MBLE
TCA760B	AUDIO AMPLIFIER	75	DP16/3	348	PHIN	MBLE MULL RTC VAD
TCA770A	IF LIMITER-AMPLIFIER	85	DP16/3	348	PHIN	MBLE MULL VAD
TCA770D	IF LIMITER-AMPLIFIER	85	FP14/2	356	PHIN	MBLE MULL RTC VAD
TCA780	PHASE CONTROL CIRCUIT	120	DP16/1	347	SIE	
TCA800	COLOUR DEMODULATOR	102	DP16/3	348	MULL	PLSB
TCA820	DOUBLE BALANCED MODULATOR/DEMODULATOR	120	QP14/1	358	VAD	
TCA830	AF POWER AMPLIFIER	75	RP12/1	361		TFKH
TCA830A	AF POWER AMPLIFIER	75	RP12/2	361	TFKH	
TCA830S	AF POWER AMPLIFIER WITH THERMAL SHUT-DOWN	75	RP12/1	361	SGAI	TFKH THCF
TCA830SR	AF POWER AMPLIFIER	75	RP12/4	361	THCF	
TCA871	TRANSISTOR-ARRAY WITH 5 NPN TRANSISTORS	112	DP14/1	346	SIE	
TCA900	MOTOR SPEED REGULATOR	114	SP3/1	362	SGAI	THCF
TCA910	MOTOR SPEED REGULATOR	114	SP3/1	362	SGAI	TFKH THCF
TCA940	10 WATT AUDIO POWER AMPLIFIER	75	RP12/2	361		THCF
TCA940E	10 WATT AUDIO POWER AMPLIFIER	75	RP12/2	361		THCF
TCA940N	10 WATT AUDIO POWER AMPLIFIER	75	RP12/2	361	SGAI	THCF
TCA955	MOTOR SPEED REGULATOR	114	DP16/1	347	SIE	
TCA965	WINDOW DISCRIMINATOR	120	DP16/1	347	SIE	
TCA971	TRANSISTOR-ARRAY WITH 5 NPN TRANSISTORS	112	DP14/1	346	SIE	
TCA980	MICROPHONE AMPLIFIER	120	CM4/2	341	PHIN	MBLE MULL RTC VAD
TCA980G	MICROPHONE AMPLIFIER	120	SP9/2	363	PHIN	MBLE
TCA991	TRANSISTOR ARRAY WITH 5 NPN TRANSISTORS	112	DP14/1	346	SIE	
TCA991K	TRANSISTOR ARRAY WITH 5 NPN TRANSISTORS	112	µ14/4	365	SIE	
TCA3002-DC	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER	92	OG16/4	344	MTLA	
TCA3002-DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER	92	DP16/15	350	MTLA	
TCA3089	COMPLETE IF-FM SYSTEM WITH AFC-AGC	82	DP16/6	349	SGAI	
TCA3189	FM-IF HIGH QUALITY RADIO SYSTEM	82	DP16/6	349	SGAI	
TCA4500A	FM STEREO DEMODULATOR	82	DP16/15	350	MTLA	
TCA4511	STEREO DECODER	120	DP18/3	351	SIE	
TCA5500	STEREO SOUND CONTROL SYSTEM	120	DP18/8	352	MTLA	

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TDA						
TDA440	GAIN CONTROLLED VIDEO IF-AMPLIFIER	98	DP16/5	349	TFKH	PLSB
TDA440S	GAIN CONTROLLED VIDEO IF-AMPLIFIER	98	QP16/6	361	SGAI	
TDA0820	DOUBLE BALANCED MODULATOR/DEMODULATOR	121	QP14/1	358	RTC	PHIN
TDA0820T	DOUBLE BALANCED MODULATOR/DEMODULATOR	121	FP14/2	356	RTC	VAD
TDA1001A	INTERFERENCE ABSORBTION CIRCUIT	121	DP16/3	348	PHIN	MBLE RTC
TDA1001AT	INTERFERENCE ABSORBTION CIRCUIT	121	FP16/2	356	PHIN	MTLA
TDA1002A	RECORDING AND PLAYBACK AMPLIFIER	76	DP16/3	348	PHIN	MBLE MULL RTC VAD
TDA1003A	MOTOR REGULATOR ANDF BIAS/ERASE OSCILLATOR	114	DP16/16	350	PHIN	MBLE MULL RTC VAD
TDA1004A	10 W AUDIO POWER AMPLIFIER	76	DP16/14	350	PHIN	MBLE MULL RTC VAD
TDA1005	PHASE LOCKED LOOP STEREO DECODER	121	DP16/3	348		MULL
TDA1005A	FREQUENCY MULTIPLEX PLL STEREO DECODER	121	DP16/3	348	PHIN	MBLE MULL
TDA1005AT	FREQUENCY MULTIPLEX PLL STEREO DECODER	121	FP16/2	356	PHIN	MBLE
TDA1006A	MOTOR REGULATOR WITH AUTOMATIC TAPE-END INDICATOR	114	DP16/16	350	PHIN	MBLE MULL
TDA1008	GATING/FREQUENCY DIVIDER FOR ELECTRONIC MUSICAL INSTRUMENTS	121	DP16/3	348	PHIN	MBLE MULL RTC VAD
TDA1009	2X6W STEREO AUDIO POWER AMPLIFIER	76	DP16/14	350		MULL VAD
TDA1010	6 W AUDIO POWER AMPLIFIER	76	SP9/2	363	PHIN	MBLE MULL RTC VAD
TDA1010A	6 W AUDIO POWER AMPLIFIER	76	SP9/2A	363	PHIN	MBLE
TDA1011	2 TO 6 WATTS AUDIO POWER AMPLIFIER	76	SP9/2	363	PHIN	MBLE MULL
TDA1011A	2 TO 6 WATTS AUDIO POWER AMPLIFIER	76	SP9/2	363	PHIN	MBLE
TDA1012	RECORDING/PLAY-BACK AND 2 W AUDIO POWER AMPLIFIER	76	DP16/3	348	PHIN	MBLE
TDA1013	4 W AUDIO POWER AMPLIFIER WITH DC VOLUME CONTROL	76	SP9/2	363	PHIN	MBLE
TDA1023	TRIAC TRIGGERING CIRCUIT	122	DP16/3	348	PHIN	MBLE MULL RTC VAD
TDA1024	A MAINS-ZERO TRIAC TRIGGERING CIRCUIT	122	DP8/5	345	PHIN	MBLE MULL RTC VAD
TDA1028	AUDIO SWITCH	76	DP16/2	347	VAD	MBLE MULL PHIN RTC
TDA1029	AUDIO SWITCH	77	DP16/2	347	VAD	MBLE MULL PHIN RTC
TDA1034	OPERATIONAL AMPLIFIER	93	CM8/1	342		MULL
TDA1034D /ND	OPERATIONAL AMPLIFIER	93	FP8/2	356		VAD
TDA1034N	OPERATIONAL AMPLIFIER	93	CM8/1	342		MULL
TDA 1035T	SOUND CHANNEL FOR TV RECEIVERS	85	RP12/4	361	ITT	
TDA1037	AF AMPLIFIER	77	SP9/1	363	SIE	
TDA1037D	AF AMPLIFIER	77	DP18/3A	351	SIE	
TDA1041	SPEED REGULATOR FOR DC MOTORS	114	EP10/3	353	THCF	
TDA1042	POWER AUDIO AMPLIFIER	77	RP14/1	361	THCF	
TDA1044	VERTICAL DEFLECTION CIRCUIT	122	RP12/4	361	ITT	
TDA1045	AF AMPLIFIER	77	QP14/2	358	THCF	
TDA1046	AM AMPLIFIER	87	DP16/1	347	SIE	
TDA1047	FM/IF AMPLIFIER WITH DEMODULATOR	87	DP18/3	351	SIE	
TDA1048	AM AMPLIFIER	85	DP16/1	347	SIE	THCF
TDA1050	IC FOR CAR RADIO RF TO DETECTOR STAGE	85	DP16/3	348	MULL	
TDA1054M	PREAMPLIFIER WITH ALC FOR CASSETTE RECORDERS	77	DP16/6	349	SGAI	
TDA1055	STEREO DECODER	122	DP8/1	344	SIE	
TDA1057	VOLTAGE REGULATOR	110	CP2/1	343	THCF	
TDA1059B	MOTOR SPEED REGULATOR WITH THERMAL SHUT-DOWN	114	SP3/1	362	RTC	MBLE MULL PHIN VAD
TDA1059C	MOTOR SPEED REGULATOR	114	SP3/1	362	RTC	MBLE MULL PHIN
TDA1060	CONTROL CIRCUIT FOR SWITCHED-MODE POWER SUPPLIER	122	DP16/3	348	PHIN	MBLE MULL RTC VAD
TDA1060B	CONTROL CIRCUIT FOR SWITCHED-MODE POWER SUPPLIES	122	DG16/5	344	PHIN	MBLE RTC VAD
TDA1061	ATTENUATOR 2-PART	123	GP4/3	357	TFKH	
TDA1062	FM-TUNER	123	DP16/5	349	TFKH	
TDA1068	NOISE INVERTER WITHIN THE AUDIO-FREQUENCY	123	DP16/5	349	TFKH	
TDA1069	RED DRIVER	123	DP16/3	348	RTC	
TDA1072	AM RECEIVER	123	DP16/3	348	VAD	MBLE MULL PHIN RTC TFKH
TDA1073	DC CONTROLLED ELECTRONIC POTENTIOMETER	123	DP18/4	351	VAD	
TDA1074	DUAL ELECTRONIC DOUBLE POTENTIOMETER	124	DP18/2	350	VAD	MBLE MULL PHIN RTC
TDA1077D	TWO TONE GENERATOR FOR TELEPHONE DRALLING	124	DG16/5	344	PHIN	MBLE MULL
TDA1077P	TWO TONE GENERATOR FOR TELEPHONE DRALLING	124	DP16/3	348	PHIN	MBLE MULL

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TDA1082	DRIVER FOR AN EW-CORRECTION SYSTEM	124	DP16/3	348	VAD	
TDA1083	MONOLITHIC INTEGRATED AM/FM AND AUDIO CIRCUIT	87	DP16/5	349	TFKH	Sprague Europe
TDA1085A	UNIVERSAL MOTOR SPEED CONTROLLED	114	DP16/5	349	MTLA	PLSB
TDA1088	TV SOUND CHANNEL - 2 WATT OUTPUT	77	EP16/3	354		Sprague Europe
TDA1090	SIGNAL PROCESSING SYSTEM	87	DP20/1	352		Sprague Europe
TDA1093A	GENERATION OF TUNING VOLTAGE FOR FM-RECEIVERS	124	DP16/1	347	TFKH	
TDA1093B	GENERATION OF TUNING VOLTAGE FOR FM-RECEIVERS	124	DP16/1	347	TFKH	
TDA1096	DUAL 256-STAGE BUCKET-BRIGADE ANALOGUE DELAY LINE	124	DP16/3	348	PHIN	MBLE
TDA1097	1536-STAGE BUCKET-BRIGADE ANALOGUE DELAY LINE	125	DP8/8	345	PHIN	MBLE
TDA1099-SP	CAR AF STEREO SYSTEM	77	SP11/1	364	THCF	
TDA1100-SP	8 TO 20 W POWER AUDIO AMPLIFIER	77	SP11/1	364	THCF	
TDA1102-SP	8 TO 20 W POWER AUDIO AMPLIFIER	77	SP11/1	364	THCF	
TDA1103-SP	8 TO 20 W POWER AUDIO AMPLIFIER	77	SP11/1	364	THCF	
TDA1151	MOTOR SPEED REGULATOR	114	SP3/1	362	SGAI	THCF
TDA1151-SP-2	MOTOR SPEED REGULATOR	114	SP3/4	363	THCF	
TDA1170	TV VERTICAL DEFLECTION SYSTEM	125	RP12/5	361	SGAI	
TDA1170S	TV VERTICAL DEFLECTION SYSTEM	125	RP12/1	361	SGAI	TFKH THCF
TDA1170SH	TV VERTICAL DEFLECTION SYSTEM	125	RP12/2	361	SGAI	
TDA1180F	TV HORIZONTAL PROCESSOR	104	DP16/6A	349	SGAI	
TDA1180P	TV HORIZONTAL PROCESSOR	104	DP16/6A	349	SGAI	
TDA1190	COMPLETE TV SOUND CHANNEL	85	RP12/1	361	SGAI	
TDA1190Z	COMPLETE TV SOUND CHANNEL	85	RP12/1	361	SGAI	
TDA1195	AF-SWITCHES	125	DP18/		SIE	
TDA1200	FM/IF RADIO SYSTEM	83	DP16/6B	349	SGAI	RCA
TDA1220	AM-FM RADIORECEIVER SYSTEM	82	DP16/6B	349	SGAI	
TDA1220A	AM-FM RADIORECEIVER SYSTEM	88	DP16/6B	349	SGAI	
TDA1235	SOUND CHANNEL FOR TV RECEIVER	85	DP18/1A	350	SGAI	
TDA1270	TV VERTICAL DEFLECTION SYSTEM	125	RP12/5	361	SGAI	
TDA1352A	TV VIDEO AMPLIFIER WITH GATED AGC	98	DP14/1	346	ITT	
TDA1352B	TV VIDEO AMPLIFIER WITH GATED AGC	98	QP14/1	358	ITT	
TDA1405	VOLTAGE REGULATOR (5V)	107	SP3/1	362		THCF
TDA1410AH	DUAL DARLINGTON	112	SP5/1	363		TFKH
TDA1410AV	DUAL DARLINGTON	112	SP5/2	363		TFKH
TDA1412	VOLTAGE REGULATOR (12V)	107	SP3/1	362		THCF
TDA1415	VOLTAGE REGULATOR (15V)	107	SP3/1	362		THCF
TDA1418	VOLTAGE REGULATOR (18V)	107	SP3/1	362	THCF	
TDA1420AH	DUAL DARLINGTON	112	SP5/1	363	SGAI	
TDA1420AV	DUAL DARLINGTON	112	SP5/2	363	SGAI	
TDA1420LH	DUAL DARLINGTON	112	SP5/1	363	SGAI	
TDA1420LV	DUAL DARLINGTON	112	SP5/2	363	SGAI	
TDA1424	VOLTAGE REGULATOR (24V)	107	SP3/1	362	THCF	
TDA1470	COLOUR TV VERTICAL DEFLECTION SYSTEM	125	DP16/6	349	SGAI	
TDA1470A	COLOUR TV VERTICAL DEFLECTION SYSTEM	125	RP16/3	362	SGAI	
TDA1510	24W BTL OR 2X12W STEREO CAR RADIO POWER AMPLIFIER	78	SP13/1	364	PHIN	MBLE
TDA1512	12 TO 20 W HI-FI AUDIO POWER AMPLIFIER	78	SP9/3	364	PHIN	MBLE MULL
TDA1533	PLL MOTOR SPEED CONTROL FOR HI-FI APPLICATIONS	126	DP18/4	351	PHIN	MBLE
TDA1540	14-BIT DAC WITH 85 dB S/N RATIO	126	DC28/2	343	PHIN	MBLE
TDA1550	FIXED VOLTAGE REGULATOR	126	CG2/1	341	THCF	
TDA1580	ANALOGUE AUTOMATIC TUNING IN RADIO AND TV APPLICATIONS	126	DP18/4	351	VAD	MBLE PHIN
TDA1905	5W AUDIO POWER AMPLIFIER WITH MUTING	78	DP16/6B	349	SGAI	
TDA1908	8 W AUDIO POWER AMPLIFIER	78	RP12/1	361	SGAI	
TDA1908A	8 W AUDIO POWER AMPLIFIER	78	RP12/2	361	SGAI	
TDA1910	10 W HI-FI AUDIO POWER AMPLIFIER	78	SP11/2	364	SGAI	

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TDA1950	LINE CIRCUITS FOR TV RECEIVERS	104	DP18/1A	350	ITT	
TDA1950F	LINE CIRCUITS FOR TV RECEIVERS	104	DP18/1A	350	ITT	
TDA2000	STEREO EQUALIZING AMPLIFIER, SIGNAL SOURCE SWITCH AND AF CONTROL	126	DP18/1	350	SIE	
TDA2002H	8 W AUDIO POWER AMPLIFIER (FOR CAR RADIO)	78	SP5/1	363	SGAI	TFKH
TDA2002V	8 W AUDIO POWER AMPLIFIER (FOR CAR RADIO)	78	SP5/2	363	SGAI	TFKH
TDA2003H	10 W CAR RADIO AUDIO AMPLIFIER	78	SP5/1	363	SGAI	TFKH THCF
TDA2003V	10 W CAR RADIO AUDIO AMPLIFIER	78	SP5/2	363	SGAI	TFKH THCF
TDA2004	10 + 10W STEREO AMPLIFIER FOR CAR RADIO	78	SP11/2	364	SGAI	
TDA2005	20 W BRIDGE BOOSTER FOR CAR RADIO	79	SP11/2	364	SGAI	
TDA2006H	10 W AUDIO POWER AMPLIFIER	79	SP5/1	363	SGAI	SIE TFKH THCF
TDA2006V	10 W AUDIO POWER AMPLIFIER	79	SP5/2	363	SGAI	SIE TFKH THCF
TDA2008	12 W AUDIO AMPLIFIER	79	SP5/2	363	SGAI	
TDA2010	HI-FI AUDIO POWER AMPLIFIER	79	QP14/4	358	SGAI	
TDA2020	HI-FI AUDIO POWER AMPLIFIER	79	QP14/4	358	SGAI	
TDA2020 D-DP	HI-FI AUDIO POWER AMPLIFIER	79	DP14/6	346	SGAI	
TDA2020 D-QP	HI-FI AUDIO POWER AMPLIFIER	79	QP14/4	358	SGAI	
TDA2020D-EP	HI-FI AUDIO POWER AMPLIFIER	79	EP14/2	364	SGAI	
TDA2020D-RP	HI-FI AUDIO POWER AMPLIFIER	79	RP14/3	362	SGAI	
TDA2030H	14 W HI-FI AUDIO POWER AMPLIFIER	80	SP5/1	363	SGAI	TFKH THCF
TDA2030V	14 W HI-FI AUDIO POWER AMPLIFIER	80	SP5/2	363	SGAI	TFKH THCF
TDA2048	4-STAGE CONTROLLED AM BROAD BAND AMPLIFIER	88	DP18/3	351	SIE	
TDA2054M	PREAMPLIFIER WITH ALC FOR MONO AND STEREO CASSETTE RECORDERS	80	DP16/6	349	SGAI	
TDA2140	PAL SUBCARRIER REFERENCE OSCILLATOR FOR COLOUR TV	104	DP16/6A	349	SGAI	
TDA2150	LUMINANCE AND CHROMINANCE AMPLIFIER FOR COLOUR TV	100	DP16/5A	349		TFKH
TDA2151	LUMINANCE AND CHROMINANCE AMPLIFIER FOR COLOUR TV	100	DP16/6A	349	TFKH	SGAI
TDA2160	SYNCHRONOUS DEMODULATOR AND RGB MATRIX FOR COLOUR TV	126	DP16/5A	349		TFKH
TDA2161	SYNCHRONOUS DEMODULATOR AND RGB MATRIX FOR COLOUR TV	126	DP16/6A	349	TFKH	SGAI
TDA2190	COMPLETE TV SOUND CHANNEL WITH VCR AND CCC	83	DP16/6	349	SGAI	
TDA2190F	COMPLETE TV SOUND CHANNEL WITH VCR AND CCC	83	EP16/4	354	SGAI	
TDA2310	HI-FI DUAL AMPLIFIER	80	DP14/6	346	SGAI	
TDA2510	CHROMINANCE COMBINATION	97	DP16/3	348	PHIN	MBLE VAD
TDA2510Q	CHROMINANCE COMBINATION	97	QP16/4	348	PHIN	MBLE
TDA2520	COLOUR DEMODULATOR COMBINATION	102	DP16/3	348	PHIN	MBLE
TDA2520Q	COLOUR DEMODULATOR COMBINATION	102	QP16/4	360	PHIN	MBLE
TDA2521	SYNCHRONOUS DEMODULATOR	102	DP16/3	348		VAD
TDA2522	COLOUR DEMODULATOR COMBINATION	103	DP16/3	348	PHIN	MBLE MULL PLSB
TDA2522Q	COLOUR DEMODULATOR COMBINATION	103	QP16/4	360	PHIN	MBLE SIE
TDA2523	COLOUR DEMODULATOR COMBINATION	103	DP16/3	348	PHIN	MBLE PLSB
TDA2523Q	COLOUR DEMODULATOR COMBINATION	103	QP16/4	360	PHIN	MBLE
TDA2524	COLOUR DEMODULATOR COMBINATION	103	DP16/3	348	VAD	MBLE MULL PHIN
TDA2530	RGB MATRIX PREAMPLIFIER WITH CLAMP	103	DP16/3	348	PHIN	MBLE MULL PLSB
TDA2530Q	RGB MATRIX PREAMPLIFIER WITH CLAMP	103	QP16/4	360	PHIN	MBLE MULL
TDA2532	RGB MATRIX PREAMPLIFIER WITH CLAMP	103	DP16/3	348	PHIN	MBLE MULL PLSB VAD
TDA2532Q	RGB MATRIX PREAMPLIFIER	103	QP16/4	360	PHIN	MBLE
TDA2540	IF AMPLIFIER AND SIGNAL PROCESSOR	86	DP16/3	348	PHIN	MBLE MULL PLSB
TDA2540Q	IF AMPLIFIER AND SIGNAL PROCESSOR	86	QP16/4	360	PHIN	MBLE MULL
TDA2541	IF AMPLIFIER AND SIGNAL PROCESSOR	86	DP16/3	348	PHIN	MBLE MULL PLSB
TDA2541Q	IF AMPLIFIER AND SIGNAL PROCESSOR	86	QP16/4	360	PHIN	MBLE MULL THCF
TDA2542	TELEVISION IF AMPLIFIER AND DEMODULATOR	86	DP16/3	348	PHIN	MBLE RTC
TDA2542Q	TELEVISION IF AMPLIFIER AND DEMODULATOR	86	QP16/4	360	PHIN	MBLE
TDA2544	TELEVISION IF-AMPLIFIER AND DEMODULATOR	86	DP16/3	348	PHIN	MBLE
TDA2544Q	TELEVISION IF-AMPLIFIER AND DEMODULATOR	86	QP16/4	360	PHIN	MBLE
TDA2546	QUASI SPLIT SOUND CIRCUIT	83	DP18/4	351	VAD	

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TDA2560	LUMINANCE AND CHROMINANCE CONTROL CIRCUIT	97	DP16/3	348	PHIN	MBLE MULL PLSB RTC SIE VAD
TDA2560Q	LUMINANCE AND CHROMINANCE CONTROL CIRCUIT	97	QP16/4	360	PHIN	MBLE MULL
TDA2571	HORIZONTAL SYNCHRONIZATION AND VERTICAL DIVIDER	127	DP16/3	348		VAD
TDA2571A	HORIZONTAL SYNCHRONIZATION AND VERTICAL 625 DIVIDER SYSTEM	127	DP16/3	348	PHIN	MBLE MULL VAD
TDA2571AQ	HORIZONTAL SYNCHRONIZATION AND VERTICAL 625 DIVIDER SYSTEM	127	QP16/4	360	PHIN	MBLE MULL
TDA2573A	HORIZONTAL OSCILLATOR COMBINATION WITH VERTICAL 525 DIVIDER SYSTEM	127	DP16/3	348	PHIN	MBLE
TDA2575A	HORIZONTAL SYNCHRONIZATION AND VERTICAL 525 DIVIDER SYSTEM	127	DP16/3	348	PHIN	MBLE
TDA2575AQ	HORIZONTAL SYNCHRONIZATION AND VERTICAL 525 DIVIDER SYSTEM	127	QP16/4	360	PHIN	MBLE
TDA2576	HORIZONTAL OSCILLATOR COMBINATION WITH VERTICAL DIVIDER	127	DP16/3	348	PHIN	MBLE
TDA2576A	HORIZONTAL OSCILLATOR COMBINATION WITH VERTICAL 625 DIVIDER SYSTEM	127	DP16/3	348	PHIN	MBLE VAD
TDA2581	CONTROL CIRCUIT FOR SMPS	128	DP16/3	348	PHIN	MBLE MULL RTC VAD
TDA2581Q	CONTROL CIRCUIT FOR SMPS	128	QP16/4	360	PHIN	MBLE MULL
TDA2582	CONTROL CIRCUIT FOR POWER SUPPLIERS	128	DP16/3	348	PHIN	MBLE MULL VAD
TDA2582Q	CONTROL CIRCUIT FOR POWER SUPPLIERS	128	QP16/4	360	PHIN	MBLE MULL
TDA2585	THYRISTOR-CONTROL FOR TELEVISION SETS	128	DP18/4	351	VAD	RTC
TDA2590	LINE OSCILLATOR COMBINATION	128	DP16/3	348		PLSB SIE
TDA2591	HORIZONTAL COMBINATION	104	DP16/3	348	VAD	MBLE PHIN PLSB SIE TFKH
TDA2591Q	HORIZONTAL COMBINATION	104	QP16/4	351	PHIN	MBLE
TDA2591S	HORIZONTAL COMBINATION	104	DP16/3	348	VAD	
TDA2592	SIMILAR TO 2591 BUT WITH SEPARATE HAND V-SUNCH-SEPARATOR	104	DP16/3	348	VAD	
TDA2593	HORIZONTAL COMBINATION	104	DP16/3	348	VAD	MBLE MULL PHIN PLSB RTC TFKH THCF
TDA2594	SIMILAR TO 2593 BUT ADDITIONALLY TV TRANSMITTER-IDENTIFICATION	104	DP18/4	351	VAD	
TDA2600	VERTICAL DEFLECTION CIRCUIT	128	EP16/1	354		MULL
TDA2600Q	VERTICAL DEFLECTION CIRCUIT	128	RP16/4	362		MULL
TDA2610A	SOUND OUTPUT CIRCUIT	80	EP16/1	354	PHIN	MBLE MULL
TDA2611A	5W AUDIO POWER AMPLIFIER	80	SP9/2	363	PHIN	MBLE MULL RTC VAD
TDA2612	HI-FI POWER AMPLIFIER	80	EP16/1	354	PHIN	MBLE
TDA2640	SWITCHED-MODE POWER SUPPLY DRIVE CIRCUIT	128	DP16/3	348	PHIN	MBLE MULL RTC VAD
TDA2640Q	SWITCHED-MODE POWER SUPPLY DRIVE CIRCUIT	128	QP16/2	359	PHIN	MBLE MULL
TDA2651	VERTICAL DEFLECTION IN TV RECEIVERS	129	RP12/1	361	VAD	MULL RTC
TDA2652	VERTICAL DEFLECTION IN TV RECEIVERS	129	EP16/1	354	VAD	MBLE PHIN RTC
TDA2653	VERTICAL DEFLECTION IN TV RECEIVERS	129	EP16/1	354	VAD	MBLE MULL PHIN
TDA2653A	SIMILAR TO 2653 BUT WITH 50/60 Hz THRESHOLD VOLTAGE	129	SP13/1	364	VAD	
TDA2654	VERTICAL DEFLECTION CIRCUIT	129	SP9/1	363	PHIN	MBLE VAD
TDA2655	SIMILAR TO 2653 BUT WITH OTHER KIND OF SUPPLY	129	EP16/1	354	VAD	
TDA2655A	SIMILAR TO 2655.	130	RP12/1	361	VAD	
TDA2700	OSCILLATOR FOR VIDEO RECORDERS.	130	DP16/3	348	PHIN	MBLE VAD
TDA2710	CHROMINANCE SIGNAL/MIXER FOR VIDEO RECORDERS	130	DP16/3	348	PHIN	MBLE VAD
TDA2720	COLOUR SUB-CARRIER OSCILLATOR FOR VIDEO RECORDERS	130	DP16/3	348	PHIN	MBLE
TDA2730	FM LIMITER/DEMODULATOR	130	DP16/3	348	PHIN	MBLE VAD
TDA2740	AMPLIFIER AND DROP-OUT DETECTOR	130	DP16/3	348		VAD
TDA2790	TELEVISION SOUND COMBINATION	83	DP16/3	348		RTC VAD
TDA2791	TELEVISION SOUND COMBINATION	83	DP16/3	348	PHIN	MBLE
TDA2795	IDENTIFICATION DECODER FOR TV STEREO/DUAL SOUND		DP18/4	351	VAD	
TDA2820	TELEVISION SOUND COMBINATION				SGAI	
TDA2840	TELEVISION QUASI-PARALLEL SOUND CIRCUIT	83	DP14/1	346	SIE	
TDA2841	TELEVISION QUASI-PARALLEL SOUND CIRCUIT WITH AFC	83	DP16/1	347	SIE	
TDA2870	10 W AF POWER AMPLIFIER	80	SP7/1	363	SIE	
TDA2890	AF VOLUME AND TONE CONTROL CIRCUIT FOR TV RECEIVERS	131	DP18/4	351	VAD	
TDA3030	SECAM ADAPTER	131	DP28/2	353	MTLA	
TDA3081	SEVEN-TRANSISTOR ARRAYS	112	DP16/3	348	PHIN	MBLE MULL RTC VAD
TDA2721	OSCILLATOR AND MIXER FOR VIDEO RECORDERS.	130	DP16/3	348	VAD	

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TDA3082	SEVEN-TRANSISTOR ARRAYS	112	DP16/3	348	PHIN	MBLE MULL RTC VAD
TDA3083	GENERAL PURPOSE HIGH-CURRENT NPN TRANSISTOR ARRAY	112	DP16/		PHIN	MBLE MULL RCA RTC VAD
TDA3083D	GENERAL PURPOSE HIGH-CURRENT NPN TRANSISTOR ARRAY	112	DP16/		PHIN	MBLE RCA RTC VAD
TDA3190	COMPLETE TV SOUND CHANNEL	83	DP16/6B	349	SGAI	
TDA3300	TV COLOUR PROCESSING SYSTEM	131	DP40/1	353	MTLA	
TDA3310	LOW NOISE NPN TRANSISTOR ARRAY	112	DP14/6	346	SGAI	
TDA3410	LOW NOISE DUAL PREAMPLIFIER WITH AUTO REVERSE	81	DP16/6B	349	SGAI	
TDA3500	VIDEO CONTROL COMBINATION	131	DP28/3	353	VAD	MBLE MULL PHIN RTC
TDA3501	VIDEO CONTROL COMBINATION	131	DP28/3	353	PHIN	MBLE VAD
TDA3510	PAL DECODER	132	DP24/1	352	VAD	MBLE MULL PHIN RTC THCF
TDA3520	SECAM DECODER	132	DP28/3	353	VAD	MBLE PHIN RTC
TDA3540	TELEVISION IF AMPLIFIER AND DEMODULATOR	86	DP16/3	348	PHIN	MBLE
TDA3540Q	TELEVISION IF AMPLIFIER AND DEMODULATOR	86	QP16/4	360	PHIN	MBLE
TDA3541	TELEVISION IF AMPLIFIER AND DEMODULATOR	86	DP16/3	348	PHIN	MBLE
TDA3541Q	TELEVISION IF AMPLIFIER AND DEMODULATOR	86	QP16/4	360	PHIN	MBLE
TDA3560	PAL DECODER	100	DP28/3	353	PHIN	MBLE MULL VAD
TDA3570	NTSC DECODER	100	DP28/2	353	PHIN	MBLE
TDA3650	VERTICAL DEFLECTION CIRCUIT	132	EP13/1	354	PHIN	MBLE
TDA3770	VIDEO PROCESSOR FOR VIDEO RECORDER	133	DP18/4	351	VAD	
TDA3780	FREQUENCY MODULATOR FOR VIDEO RECORDER	133	DP18/4	351	VAD	
TDA3950	CHROMINANCE COMBINATION	100	DP14/5	346	MTLA	
TDA3950A	CHROMINANCE COMBINATION	100	DP14/5	346	MTLA	
TDA4050	INFRA-RED PREAMPLIFIER	133	DP8/6	345	SIE	
TDA4180	FRONT END AMPLIFIER	133	CM8/2	342	TFKH	
TDA4180P	FRONT END AMPLIFIER	133	DP8/1	344	TFKH	
TDA4200	FM-IF DEMODULATOR FOR AUTO RADIO	84	DP18/3	351	SIE	
TDA4260	AF AMPLIFIER	81	DP8/6	345	SIE	
TDA4281T	QUASI PARALLEL SOUND CIRCUIT	88	DP22/2	352	SIE	
TDA4282T	QUASI PARALLEL SOUND CIRCUIT	88	DP22/2	352	SIE	
TDA4290	SOUND CONTROL CIRCUIT	133	DP14/7	347	SIE	
TDA4400	VIDEO IF AMPLIFIER	98	DP16/5	349	TFKH	
		98	QP16/6	349	TFKH	
TDA4410	VIDEO IF AMPLIFIER	98	DP16/5	349	TFKH	
		98	QP16/6	349	TFKH	
TDA4420	VIDEO IF SYSTEM WITH AFC	98	DP18/5	351	TFKH	SGAI
TDA4421	VIDEO IF AMPLIFIER, DEMODULATOR, AGC AND AFC	98	DP18/6	351	TFKH	
TDA4422	VIDEO IF AND AFC CIRCUIT	98	DP18/1A	350	TFKH	
TDA4430	CONTROL FOR AUTOMATIC TV SEARCH TUNING AND AFC SYSTEM	133	DP8/6	345	TFKH	
TDA4431	CONTROL FOR AUTOMATIC TV SEARCH TUNING AND AFC SYSTEM	134	DP14/6	346	TFKH	SGAI
TDA4432	TELEVISION TRANSMISSION IDENTIFICATION	134	DP8/6	345	TFKH	
TDA4433	TV SIGNAL IDENTIFICATION CIRCUIT AND AFC INTERFACE	134	DP14/6	346	SGAI	
TDA4440	TV VIDEO IF-AMPLIFIER WITH PNP TUNERS	98	DP16/1	347	TFKH	
TDA4450	TV VIDEO IF-AMPLIFIER WITH NPN TUNERS	98	DP16/1	347	TFKH	
TDA4600	CONTROL FOR SWITCHED MODE POWER SUPPLY	134	DP18/3	351	SIE	
TDA4610	EAST-WEST CORRECTOR CIRCUIT	134	SP9/1	363	SIE	
TDA4620	AUTOMATIC CONTROL FOR HORIZONTAL DEFLECTION	134	DP22/2	352	SIE	
TDA4700	CONTROL FOR SINGLE-ENDED AND PUSH-PULL SWITCHING POWER SUPPLIES	134	DC24/1	343	SIE	
TDA4700A	CONTROL FOR SINGLE-ENDED AND PUSH-PULL SWITCHING POWER SUPPLIES	134	DP24/4	352	SIE	
TDA4920	STEREO BRIDGE AF AMPLIFIER	81	SP9/1	363	SIE	
TDA4942	TV STEREO MATRIX WITH RECORDER CONNECTION	84	DP16/1	347	SIE	
TDA5500	TV VIDEO IF AMPLIFIER	99	DP16/1	347	SIE	
TDA5600	VIDEO IF CIRCUIT WITH AFC	99	DP18/3	351	SIE	

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TDA5610	VIDEO IF CIRCUIT WITH AFC	99	DP18/3	351	SIE	
TDA5611	VIDEO IF CIRCUIT WITH AFC	99	DP18/3	351	SIE	
TDA5700	INTEGRATED AM/FM RADIO RECEIVER CIRCUIT	88	DP16/3	348	PHIN	MBLE MULL
TDA5700Q	INTEGRATED AM/FM RADIO RECEIVER CIRCUIT	88	QP16/4	360	PHIN	MBLE MULL
TDA5800	VIDEO IF-CIRCUIT WITH AFC AND VCR CONNECTION	99	DP22/2	352	SIE	
TDA5820	VIDEO IF-CIRCUIT WITH AFC AND VCR CONNECTION (FOR CIR AND FRENCH NAMES)	99	DP22/2	352	SIE	
TDA5850	VIDEO AMPLIFIER WITH FRENCH-VCR AND IEC NORMS	99	DP8/6	345	SIE	
TDA7270S	MULTIFUNCTION SYSTEM FOR TAPE PLAYERS	115	DP16/6B	349	SGAI	
TDA7770	MULTIFUNCTION SYSTEM FOR TAPE RECORDERS	115	RP12/ 4	361	SGAI	
TDA9400	LINE FREQUENCY CIRCUIT	105	DP16/13A	349	ITT	
TDA9403	LINE CIRCUIT FOR TV RECEIVERS	105	DP16/13A	349	ITT	
TDA9500	LINE FREQUENCY CIRCUIT	105	DP16/13A	349	ITT	
TDA9503	LINE CIRCUIT FOR TV RECEIVERS	105	DP16/13A	349	ITT	PLSB
TDA9513	LINE CIRCUIT FOR TV RECEIVERS	105	DP16/13A	349	ITT	
TDB						
TDB0084-DP	QUAD OPERATIONAL AMPLIFIER	93	DP14/4	346	THCF	
TDB0111-CM	VOLTAGE COMPARATOR WITH J-FET INPUTS	111	CM8/1	342	THCF	
TDB0111-DP	VOLTAGE COMPARATOR WITH J-FET INPUTS	111	DP8/1	344	THCF	
TDB0117-CM	VOLTAGE REGULATOR	107	CM3/2	341	THCF	
TDB0117-KM	VOLTAGE REGULATOR	107	KM2/1	357	SIE	THCF
TDB0117T(=SP)	VOLTAGE REGULATOR	107	SP3/3	363	SIE	
TDB0118-CM	OPERATIONAL AMPLIFIER	93	CM8/1	342	THCF	
TDB0119-CM	DUAL COMPARATORS	111	CM10/3	342	THCF	
TDB0119-DP	DUAL COMPARATORS	111	DP14/4	346	THCF	
TDB0119-FP	DUAL COMPARATORS	111	FP14/2	356	THCF	
TDB0123-KM	POSITIVE VOLTAGE REGULATOR	107	KM2/2	357	THCF	
TDB0124-DP	QUADRUPLE AMPLIFIER	93	DP14/4	346	THCF	
TDB0124-FP	QUADRUPLE AMPLIFIER	93	FP14/2	356	THCF	
TDB0124A-DP	QUADRUPLE AMPLIFIER	93	DP14/4	346	THCF	
TDB0139-DP	QUAD VOLTAGE COMPARATOR	111	DP14/4	346	THCF	
TDB0139A	QUAD VOLTAGE COMPARATOR	111	DP14/4	346	THCF	
TDB0146-DP	PROGRAMMABLE QUAD OPERATION AMPLIFIER	94	DP16/11	349	THCF	
TDB0146-2/DP	PROGRAMMABLE QUAD OPERATION AMPLIFIER	94	DP16/11	349	THCF	
TDB0148-DP	QUAD OPERATIONAL AMPLIFIER	94	DP14/4	346	THCF	
TDB0149-DP	QUAD OPERATIONAL AMPLIFIER	94	DP14/4	346	THCF	
TDB0155-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDB0155-DP	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	DP8/3	344	THCF	
TDB0155A-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDB0156-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDB0156-DP	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	DP8/3	344	THCF	
TDB0156A-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDB0157-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDB0157-DP	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	DP8/3	344	THCF	
TDB0157A-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDB0158-CM	DUAL OPERATIONAL AMPLIFIER	94	CM8/1	342	THCF	
TDB0158-DP	DUAL OPERATIONAL AMPLIFIER	94	DP8/3	344	THCF	
TDB0347-DP	QUAD OPERATIONAL AMPLIFIER	95	DP14/4	346	THCF	
TDB0353-CM	DUAL OPERATIONAL AMPLIFIER	95	CM8/1	342	THCF	
TDB0353-DP	DUAL OPERATIONAL AMPLIFIER	95	DP8/3	344	THCF	
TDB0453A	COMPARATOR WITH LATERAL PNP INPUT TRANSISTOR	111	DP6/1	344	SIE	
TDB0555	TIMER	135	CM8/2	342	SIE	
TDB0555-CM	TIMER	135	CM8/2	342	THCF	

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TDB0555-DP/8	TIMER	135	DP8/6	345	THCF	
TDB0555A/B	TIMER	135	DP8/6	345	SIE	
TDB0556A	DUAL TIMER	135	DP14/1	346	SIE	MTLA THCF
TDB0723	PRECISION VOLTAGE REGULATOR	108	CM10/1	342	SIE	MTLA THCF
TDB0723A	PRECISION VOLTAGE REGULATOR	108	DP14/1	346	SIE	MTLA
TDB0791-DP	POWER OPERATIONAL AMPLIFIER	95	DP14/4	346	THCF	
TDB0791-EP/12	POWER OPERATIONAL AMPLIFIER	95	EP12/1	353	THCF	
TDB0791-EP/14	POWER OPERATIONAL AMPLIFIER	95	EP14/1	354	THCF	
TDB0791-KM	POWER OPERATIONAL AMPLIFIER	95	KM10/1	357	THCF	
TDB0791-SP	POWER OPERATIONAL AMPLIFIER	95	SP11/1	364	THCF	
TDB1030	ANALOG VOLTAGE AND BAND-SWITCH	135	DP24/		VAD	
TDB1033	PREAMPLIFIER FOR ULTRA SONIC/INFRARED REMOTE CONTROL TRANSMISSION	135	DP16/3	348	VAD	MBLE MULL PHIN
TDB1146-CM/DP	PRECISION HIGH VOLTAGE REGULATOR	108	CM10/3 DP/14/4	342 346	THCF	
TDB2022-CM	OPERATIONAL AMPLIFIER	95	CM8/1	342	THCF	
TDB2033	PREAMPLIFIER FOR REMOTE CONTROL SYSTEM	135	DP16/3	348	VAD	MBLE PHIN
TDB2608-DP	ANALOG ADJUSTABLE TIMER	135	DP14/4	346	THCF	
TDB2900-EP	ADJUSTABLE VOLTAGE REGULATOR	108	EP4/1	353	THCF	
TDB2905-KM	NEGATIVE VOLTAGE REGULATOR	108	KM2/2	357	THCF	MTLA
TDB2905-SP	NEGATIVE VOLTAGE REGULATOR	108	SP3/2	362	THCF	MTLA
TDB2905A-KM	NEGATIVE VOLTAGE REGULATOR	108	KM2/2	357	THCF	MTLA
TDB2905A-SP	NEGATIVE VOLTAGE REGULATOR	108	SP3/2	362	THCF	MTLA
TDB2912-KM	NEGATIVE VOLTAGE REGULATOR	108	KM2/2	357	THCF	MTLA
TDB2912-SP	NEGATIVE VOLTAGE REGULATOR	108	SP3/2	362	THCF	MTLA
TDB2915-KM	NEGATIVE VOLTAGE REGULATOR	108	KM2/2	357	THCF	MTLA
TDB2915-SP	NEGATIVE VOLTAGE REGULATOR	108	SP3/2	362	THCF	MTLA
TDB3403-DP	QUAD LOW POWER OPERATIONAL AMPLIFIER	95	DP14/4	346	THCF	
TDB4558-CM	DUAL WIDE BAND OPERATIONAL AMPLIFIER	96	CM8/1	342	THCF	
TDB4558-DP	DUAL WIDE BAND OPERATIONAL AMPLIFIER	96	DP8/3	344	THCF	
TDB7805	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDB7805T	POSITIVE PRECISION VOLTAGE REGULATOR	109	SP3/3	363	SIE	
TDB7806	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDB7806T	POSITIVE PRECISION VOLTAGE REGULATOR	109	SP3/3	363	SIE	
TDB7808	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDB7808T	POSITIVE PRECISION VOLTAGE REGULATOR	109	SP3/3	363	SIE	
TDB7812	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDB7812T	POSITIVE PRECISION VOLTAGE REGULATOR	109	SP3/3	363	SIE	
TDB7815	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDB7815T	POSITIVE PRECISION VOLTAGE REGULATOR	109	SP3/3	363	SIE	
TDB7818	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDB7818T	POSITIVE PRECISION VOLTAGE REGULATOR	109	SP3/3	363	SIE	
TDB7824	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDB7824T	POSITIVE PRECISION VOLTAGE REGULATOR	109	SP3/3	363	SIE	
TDC						
TDC0084-DP	QUAD OPERATIONAL AMPLIFIER	93	DP14/4	346	THCF	
TDC0111-CM	VOLTAGE COMPARATOR WITH JFET INPUT	111	CM8/1	342	THCF	
TDC0117-CM	VOLTAGE REGULATOR	107	CM3/2	341	THCF	
TDC0117-KM	VOLTAGE REGULATOR	107	KM2/1	357	SIE	THCF
TDC0118-CM	OPERATIONAL AMPLIFIER	93	CM8/1	342	THCF	
TDC0119-CM	DUAL COMPARATORS	111	CM10/3	342	THCF	
TDC0119-DC	DUAL COMPARATORS	111	DC14/3	343	THCF	
TDC0119-DG	DUAL COMPARATORS	111	DG14/1	344	THCF	

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TDC0123-KM	POSITIVE VOLTAGE REGULATOR	107	KM2/1	357	THCF	
TDC0124-DG	QUADRUPLE AMPLIFIER	93	DG14/1	344	THCF	
TDC0124-DP	QUADRUPLE AMPLIFIER	93	DP14/4	346	THCF	
TDC0124A-DP	QUADRUPLE AMPLIFIER	93	DP14/4	346	THCF	
TDC0139-DG	QUAD VOLTAGE COMPARATOR	111	DG14/1	344	THCF	
TDC0139-DP	QUAD VOLTAGE COMPARATOR	111	DP14/4	346	THCF	
TDC0139A-DP	QUAD VOLTAGE COMPARATOR	111	DP14/4	346	THCF	
TDC0146 -DP -2/DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER	94	DP16/11	349	THCF	
TDC0148-DG	QUAD OPERATIONAL AMPLIFIER	94	DP16/11	349	THCF	
TDC0148-DP	QUAD OPERATIONAL AMPLIFIER	94	DG14/1	344	THCF	
TDC0149-DP	QUAD OPERATIONAL AMPLIFIER	94	DP14/4	346	THCF	
TDC0155-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDC0155A-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDC0156-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDC0156A-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDC0157-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDC0157A-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDC0158-CM	DUAL OPERATIONAL AMPLIFIER	94	CM8/1	342	THCF	
TDC0555	TIMER	135	CM8/2	342	SIE	MTLA THCF
TDC0714-CM	INSTRUMENTATION OPERATIONAL AMPLIFIER	95	CM8/1	342	THCF	
TDC0723	PRECISION VOLTAGE REGULATOR	108	CM10/1	342	SIE	MTLA THCF
TDC0791-KM	OPERATIONAL AMPLIFIER	95	KM10A	357	THCF	
TDC1146-CM	PRECISION HIGH VOLTAGE REGULATOR	108	CM10/3	342	THCF	
TDC2905-KM	NEGATIVE VOLTAGE REGULATOR	108	KM2/2	357	THCF	
TDC2905A-KM	NEGATIVE VOLTAGE REGULATOR	108	KM2/2	357	THCF	
TDC2912-KM	NEGATIVE VOLTAGE REGULATOR	108	KM2/2	357	THCF	
TDC2915-KM	NEGATIVE VOLTAGE REGULATOR	108	KM2/2	357	THCF	
TDC3403-DP	QUAD LOW POWER OPERATIONAL AMPLIFIER	95	DP14/4	346	THCF	
TDC4558-CM	DUAL WIDE BAND OPERATIONAL AMPLIFIER	96	CM8/1	342	THCF	
TDC7800	POSITIVE VOLTAGE REGULATOR		KM2/1	357	SIE	
TDC7805	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDC7806	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDC7808	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDC7812	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDC7815	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDC7818	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDC7824	POSITIVE PRECISION VOLTAGE REGULATOR	109	KM2/1	357	SIE	THCF
TDD						
TDD0246	DYNAMIC TELEPHONE MICROPHONE AMPLIFIER	81	DP8/6	345	TFKH	
TDD1605S	VOLTAGE REGULATOR (5V)	108	SP3/5	363	ITT	
TDD1606S	VOLTAGE REGULATOR (6V)	108	SP3/5	363	ITT	
TDD1608S	VOLTAGE REGULATOR (8V)	108	SP3/5	363	ITT	
TDD1610S	VOLTAGE REGULATOR (10V)	108	SP3/5	363	ITT	
TDD1612S	VOLTAGE REGULATOR (12V)	108	SP3/5	363	ITT	
TDD1615S	VOLTAGE REGULATOR (15V)	108	SP3/5	363	ITT	
TDD1618S	VOLTAGE REGULATOR (18V)	108	SP3/5	363	ITT	
TDD1624S	VOLTAGE REGULATOR (24V)	108	SP3/5	363	ITT	

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TYPE NUMBER	SHORT DESCRIPTION	DATA see page	PACKAGE		SPONSOR	SUPPLIERS
			TYPE	page		
TDE						
TDE0084-DP	QUAD OPERATIONAL AMPLIFIER	93	DP14/4	346	THCF	
TDE0111-CM	VOLTAGE COMPARATOR WITH JFET INPUTS	111	CM8/1	342	THCF	
TDE0117-CM	VOLTAGE REGULATOR	107	CM3/1	341	THCF	
TDE0117-KM	VOLTAGE REGULATOR	107	KM2/1	357	THCF	
TDE0118-CM	OPERATIONAL AMPLIFIER	93	CM8/1	342	THCF	
TDE0119-CM	DUAL COMPARATORS	111	CM10/3	342	THCF	
TDE0119-DP	DUAL COMPARATORS	111	DP14/4	346	THCF	
TDE0123-KM	POSITIVE VOLTAGE REGULATOR	107	KM2/2	357	THCF	
TDE0124-DP	QUADRUPLE AMPLIFIER	93	DP14/4	346	THCF	
TDE0124A-DP	QUADRUPLE AMPLIFIER	93	DP14/4	346	THCF	
TDE0139-DP	QUAD VOLTAGE COMPARATOR	111	DP14/4	346	THCF	
TDE0146-DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER	94	DP16/11	349	THCF	
TDE0146-2/DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER	94	DP16/11	349	THCF	
TDE0148-DP	QUAD OPERATIONAL AMPLIFIER	94	DP14/4	346	THCF	
TDE0149-DP	QUAD OPERATIONAL AMPLIFIER	94	DP14/4	346	THCF	
TDE0155-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDE0156-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDE0157-CM	OPERATIONAL AMPLIFIER WITH JFET INPUTS	94	CM8/1	342	THCF	
TDE0158-CM	DUAL OPERATIONAL AMPLIFIER	94	CM8/1	342	THCF	
TDE0158-DP	DUAL OPERATIONAL AMPLIFIER	94	DP8/3	344	THCF	
TDE1081	MOTOR REGULATOR WITH AUTOMATIC TAPE END INDICATION	115	DP16/3	348	RTC	
TDE1607-CM	LAMP DRIVER	135	CM6/1	341	THCF	
TDE1627-CM	INTERFACE CIRCUIT	135	CM6/1	341	THCF	
TDE1627-DP	INTERFACE CIRCUIT	135	DP8/3	344	THCF	
TDE1637-CM	INTERFACE CIRCUIT	135	CM6/1	341	THCF	
TDE1647-CM	INTERFACE CIRCUIT	135	CM6/1	341	THCF	
TDE2608-DP	ANALOGIC ADJUSTABLE TIMER	135	DP14/4	346	THCF	
TDE3403-DP	QUAD LOW POWER OPERATIONAL AMPLIFIER	95	DP14/4	346	THCF	
TDF						
TDF2901	QUAD VOLTAGE COMPARATOR	111	DP14/4	346	THCF	
TDF2902-DP	QUAD OPERATIONAL AMPLIFIER	95	DP14/4	346	THCF	
TDF2902-FP	QUAD OPERATIONAL AMPLIFIER	95	FP14/2	356	THCF	
TDF2904-DP	DUAL OPERATIONAL AMPLIFIER	95	DP8/3	344	THCF	
TDF3302	QUAD VOLTAGE COMPARATOR	111	DP14/4	346	THCF	
TEA						
TEA1001-SP	SWITCH MODE POWER SUPPLY CONTROL	135	SP17/2	364	THCF	
TEA1002- "	PAL COLOUR ENCODER AND VIDEO SUMMER	136	DP18/4	351	MULL	
TEA1007	PHASE CONTROL OF AC LOADS	136	DP8/5	345	TFKH	
TEA1009	PREAMPLIFIER FOR IR REMOTE CONTROL SYSTEMS	136	DP14/2	346	ITT	
TEA1014	VIDEO AND SOUND SWITCHING FOR TV SETS PERIPHERALS	136	DP16/11	349	THCF	
TEA1020-SP	COMPLETE VERTICAL SWEEP SYSTEM FOR TV SETS	136	SP17/2	364	THCF	
TEA1029	COMPLETE CHROMA PROCESSING FOR COLOUR TV SETS	137	DP24/7	353	THCF	
TEA1030	COMPLETE VIDEO PROCESSING FOR COLOUR TV SETS	137	DP28/2	353	THCF	
TEA1030A	COMPLETE VIDEO PROCESSING FOR COLOUR TV SETS	137	DP28/2	353	THCF	
TEA1034	HORIZONTAL DEFLECTION CIRCUITS FOR B/W TV SETS	105	DP16/11	349	THCF	
TEA1035-DP14	MULTI CHANNELS AF STEREO SWITCH PRIORITY	137	DP14/4	346	THCF	
TEA1035-DP18	MULTI CHANNELS AF STEREO SWITCH PRIORITY	137	DP18/7	351	THCF	
TEA1035-DP24	MULTI CHANNELS AF STEREO SWITCH PRIORITY	137	DP24/7	353	THCF	
TEA1035-U	MULTI CHANNELS AF STEREO SWITCH PRIORITY	137	DP24/1	365	THCF	

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			TYPE	page		
TEA1045	TELEPHONE SUBSET AMPLIFIER	137	DP18/1A	350	ITT	
TEA1087	HIGH CURRENT CASCADE AMPLIFIER UP TO 300 MHZ/IF PREAMPLIFIER	137	CM3/3	341	TFKH	
TEA5550	AM CAR RADIO RECEIVER CIRCUIT	88	DP16/3	348	PHIN	MBLE
TEA5560	FM/IF SYSTEM	84	SP9/4	364	PHIN	MBLE
TEB						
TEB1025-CM	400 MHZ WIDE BAND OPERATIONAL AMPLIFIER	96	CM8/1	342	THCF	
TEB1026	LATCH CIRCUIT FOR 8 RELAYS	138	DP16/11	349	THCF	
TEB1027	RELAY CONTROL CIRCUIT	138	DP16/11	349	THCF	
TEB1028	DUAL VOLTAGE COMPARATOR	111	DP14/4	346	THCF	
TEB1411DG	PERIPHERAL DRIVER ARRAYS	113	DG16/6	344	THCF	
TEB1411DP	PERIPHERAL DRIVER ARRAYS	113	DP16/11	349	THCF	
TEB1412DG	PERIPHERAL DRIVER ARRAYS	113	DG16/6	344	THCF	
TEB1412DP	PERIPHERAL DRIVER ARRAYS	113	DP16/11	349	THCF	
TEB1413DG	PERIPHERAL DRIVER ARRAYS	113	DG16/6	344	THCF	
TEB1413DP	PERIPHERAL DRIVER ARRAYS	113	DP16/11	349	THCF	
TEB1416DG	PERIPHERAL DRIVER ARRAYS	113	DG16/6	344	THCF	
TEB1416DP	PERIPHERAL DRIVER ARRAYS	113	DP16/11	349	THCF	
TEC						
TEC1031	RELAYS DRIVER	138	CM3/2	341	THCF	
TEC1032	RELAYS DRIVER	138	CM3/2	341	THCF	
TFA						
TFA1001W	PHOTO SENSOR	138	FP6/1	355	SIE	
TUA						
TUA1000	U.S.W. TUNER	138	DP16/1	347	SIE	
TUA2000	VHF TUNER	138	DP16/1	347	SIE	
UAA						
UAA145	PHASE CUTTING DRIVER	138	DP16/7	349	TFKH	
UAA146	PHASE CONTROL CIRCUIT	138	DP16/7	349	TFKH	
UAA170	MIXED ANALOGUE/DIGITAL CIRCUIT	139	DP16/1	349	SIE	
UAA170K	MIXED ANALOGUE/DIGITAL CIRCUIT	139	μ14/1	365	SIE	
UAA170L	MIXED ANALOGUE/DIGITAL CIRCUIT	139	DP16/1	347	SIE	
UAA180	MIXED ANALOGUE/DIGITAL CIRCUIT	139	DP16/1	347	SIE	
UAA190	DISPLAY OF TUNER VOLTAGE DURING TUNING OF TV DISPLAY	139	DP8/6	345	SIE	
UAA1003	SPEECH GENERATOR (7-SEGMENT INPUT)	139	DP40/1	353	ITT	

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			TYPE	page		
UAA1004-CM	ZERO VOLTAGE SWITCH	140	CM8/1	342	MTLA	THCF
UAA1004-DP	ZERO VOLTAGE SWITCH	140	DP8/3	344	MTLA	THCF
UAA1008A-DP	TUNING SYSTEM LINEAR PROCESSOR CIRCUIT	140	DP24/5	352	MTLA	
UAA1009	TRAFFIC BROADCAST AREA DECODER	140	DP16/1	347	ITT	
UAA1040	AUTOMATIC DIRECTION INDICATOR	140	DP8/2	345	MTLA	
UAA2000	PHASE LOCKED LOOP CONTROL CIRCUIT	140	DP24/5	352	MTLA	
UAA2001	SYNTHESIZER AMPLIFIER AND DRIVER	141	DP16/15	350	MTLA	
UAA2002	SYNTHESIZER AMPLIFIER AND DRIVER	141	DP16/13A	349	MTLA	
UAA2010	SYNTHESIZER AMPLIFIER AND DRIVER	141	DP16/15	350	MTLA	
UAA3000	TIMER FOR CONTROL OF MAINS SUPPLIED RESISTIVE LOADS	141	DP14/2	346	RTC	
UAC						
UAC1005	HIGH SPEED 4 BIT A/D CONVERTER	141	DG24/3	344	THCF	

CANCELLED TYPES

List of type numbers cancelled by their SPONSOR since 1978 edition

TYPE NUMBER	SPONSOR	TYPE NUMBER	SPONSOR
TAA 293	PHIN	TBA 651	SGAI
293A	MULL	contd 720/Q	PHIN
300	PHIN	750/A/AQ/B/Q	PHIN
310A	VAD	790A/B/C	THCF
350A	MULL	790KB/KC/KD	THCF
370A	PHIN	790LA/LB/LC	THCF
435	VAD	790NB/NC/ND	THCF
480	PHIN	800C	ITT
550K	VAD	810	SGAI
611E	SGAI	810AT/T	TFKH
611F	SGAI	900/Q	PHIN
630	VAD	970Q	PHIN
661BC	THCF	990Q	PHIN
672	SGAI	1800/A	THCF
673	SGAI		
681	SGAI		
682	SGAI		
780A	ITT	TCA 160A/B/BQ/C	PHIN
780B	ITT	210D	PHIN
790	ITT	230	PHIN
930A/B/AC/BC	THCF	250	ITT
		270	MULL
		270Q	PHIN
TAB 101	PHIN	350/Y	ITT
		370	ITT
		380	ITT
		410/A/B/D	PHIS
		430N	ITT
		450A	PHIN
		475T	THCF
		485	THCF
		490A/B/C	PHIS
		520	PHIS
		540/Q	PHIN
		600	SGAI
		610	SGAI
		640Q	PHIN
		650Q	PHIN
		660/A/AQ/Q	PHIN
		680/B/D	PHIS
		700/X	ITT
		730	VAD
		740	VAD
		760/A	PHIN
		770	PHIN
		800Q	MULL
		810/Q	PHIN
		820	PHIN
		830	SGAI
		860	ITT
		940/E	SGAI
TBA 221A	SIE		
221D	PHIN		
221N	PHIS		
231	SGAI		
240B	PHIN		
261	SGAI		
480	VAD		
480Q	PHIN		
500	VAD		
500N	VAD		
500NQ	MULL		
500P	VAD		
500PQ	MULL		
510Q	MULL		
520	VAD		
570	PHIN		
570Q	PHIN		
625	SGAI		
631	SGAI		
641A	SGAI		
641B	SGAI		

CANCELLED TYPES (CONTD)

TYPE NUMBER	SPONSOR	TYPE NUMBER	SPONSOR
TDA 0470	ITT	TDA 1412	SGAI
0470-D	ITT	1415	SGAI
0759-CM	THCF	1420H/V	SGAI
1001	PHIN	1490-SP5/1	SGAI
1002	PHIN	1490-SP5/2	SGAI
1002Q	PHIN	1496	MULL
1003	PHIN	2002AH/AV	SGAI
1004	PHIN	2150	SGAI
1005	PHIN	2160	SGAI
1006	PHIN	2500/Q	PHIN
1009	PHIN	2521	PHIN
1021	PHIS	2570	PHIN
1022	PHIN	2571/Q	PHIN
1034	PHIS	2575/Q	PHIN
1034B/D/N	PHIN	2580	PHIN
1034NB/ND	PHIN	2590/Q	PHIN
1035	ITT	2590S	VAD
1040	THCF	2600/Q	PHIN
1042N	THCF	2610/AQ/Q	PHIN
1044F	ITT	2612Q	PHIN
1053	ITT	2620/Q	PHIN
1054	SGAI	2630/Q	PHIN
1056/N	THCF	2631/Q	PHIN
1059	RTC	2670	PHIN
1063-RP	THCF	2680/A	PHIN
1065-DP	THCF	2690/A	PHIN
1066-DP	THCF	2740	PHIN
1067-EP/N-EP	THCF	2750	PHIN
1070	MULL	2760	PHIN
1071	MULL	2770	PHIN
1086	TFKH	2780	PHIN
1087	TFKH	2790/Q	PHIN
1091	RTC	2800	PHIN
1092T	PHIN	2875	SIE
1098	THCF	3000S	SIE
1101-SP	THCF	3060	PHIN
1104-DP	THCF	3065	PHIN
1104-SP	THCF	3320	SGAI
1111-SP	THCF	4250D	PHIS
1135	ITT	5900	SIE
1136	ITT	7270	SGAI
1140	SGAI		
1150	SGAI		
1160	SGAI		
1180	SGAI		
1210	SGAI	TDB 0082-CM/DP	THCF
1327A/B	ITT	0714-CM	THCF
1330	ITT	2117-CM/KM/SP	THCF
1405	SGAI	2137-CM/KM/SP	THCF
1410H	SGAI	2905-CM/A-CM	THCF
1410V	SGAI	2912-CM	THCF
		2915-CM	THCF
		3001-DP	THCF
		3002-DP	THCF
		3003-DP	THCF

CANCELLED TYPES (CONTD)

TYPE NUMBER	SPONSOR	
TDD 1605 1606 1608 1610 1612 1615 1618 1624	ITT ITI ITI ITT ITT ITT ITT ITT	
TDE 0082-CM 1064 1617-CM 2117-CM/KM/SP 2137-CM/KM/SP	THCF THCF THCF THCF THCF	
UAA 210 1000 1007	ITT ITT ITT	
TDC 0082-CM 0158-DP 0759-CM 2117-CM/KM/SP 2137-CM/KM/SP 2905-CM/A-CM 2912-CM 2915-CM	THCF THCF THCF THCF THCF THCF THCF THCF	
TEB 0087	THCF	
TEC 1025-CM	THCF	

DISCONTINUED TYPES

TYPE NUMBER	SPONSOR	TYPE NUMBER	SPONSOR
TAA 103	PHIN	TAA 500	PHIN
111	SIE	510	SIE
121	SIE	530	PHIN
131	SIE	550K	VAD
141	SIE	580	VAD
151/S	SIE	591	SGAI
161	TFKH	601	SGAI
170	PHIN	611	SGAI
182	PHIN	611E	SGAI
192	PHIN	611F	SGAI
202	PHIN	630	VAD
212	PHIN	640	VAD
222	PHIN	651	SGAI
231	PHIN	652	SGAI
232	PHIN	661	SGAI
241	PHIN	661BC	THCF
241A	RTC	661C	SGAI
242	PHIN/RTC	672	SGAI
242A	RTC	673	SGAI
243/A	RTC	681	SGAI
243C	RTC	682	SGAI
252	PHIN	700	PHIN
260	PHIN	710	ITT
270	PHIN	730	SGAI
280	PHIN	740	SGAI
293	PHIN	750	SGAI
293A	MULL	760	SIE
300/A	PHIN	761S/AS	SIE
310/A	VAD	762F	SIE
310B	PHIN	765S/AS	SIE
330	PHIN	771	ITT
340	PHIN	775	ITT
350	PHIN	775G	ITT
350A	MULL	780A/B	ITT
370/A	PHIN	790	ITT
380	VAD	800	PHIN
380A	PHIN	811	PHIN
391	TFKH	812	PHIN
401	TFKH	821	TFKH
411	SIE	833	COSEM
413	SIE	840	PHIN
420	SIE	850	PHIN
435	VAD	862F	SIE
445	VAD	870	TFKH
450	VAD	880	TFKH
460	VAD	890	TFKH
470	VAD	900/S	TFKH
480	PHIN	910	TFKH

DISCONTINUED TYPES (CONTD)

TYPE NUMBER	SPONSOR	TYPE NUMBER	SPONSOR
TAA 930A	THCF	TBA 170	PHIN
contd 930B	THCF	contd 180	PHIN
930AC	THCF	190	PHIN
930BC	THCF	200	PHIN
940	THCF	210	PHIN
940A	THCF	221A	SIE
940B	THCF	221D	SIE
940C	THCF	221N	PHIN
940D	THCF	221S	PHIS
940E	THCF	231	SGAI
940F	THCF	240	PHIN
943B	THCF	240A	PHIN
952	RTC	240B	PHIN
981	SIE	240BK	PHIN
991	SIE	240Q	PHIN
		250	PHIN
		261	SGAI
		271A/B/C	SGAI
		291	THCF
TAB 101	PHIN	301	MULL
		325	SGAI
		327/Q	MTLA
		341	ATES
		352	ATES
		365	ATES
		371	ATES
TAD 100	MULL	381	ATES
110	MULL	410	SIE
		420	SIE
		440C/Q	SIE
		450Q	SIE
		470	ITT
		480	VAD
TAH 100	MULL	480Q	PHIN
110	PHIN	490	VAD
120	PHIN	500/N/P	VAD
130	PHIN	500NQ	MULL
140	PHIN	500PQ/Q	MULL
		510Q	MULL
		540K	PHIN
		560	PHIN
		560A/AQ	PHIN
TAJ 101	TFKH	560BK	PHIN
		560Q	MULL
		570/Q	PHIN
		581	SGAI
		591	SGAI
		600	PHIN
		610	RTC
TBA 100	PHIN	625	SGAI
110	ITT	631	SGAI
120	SIE	641/A/B	SGAI
130	SIE	651	SGAI
140	SIE	660	SESCOSEM
150	PHIN	680	SIE
160	PHIN	680Q	SIE
		520	VAD

DISCONTINUED TYPES (CONTD)

TYPE NUMBER	SPONSOR	TYPE NUMBER	SPONSOR
TBA 690	PHIN	TCA 150	SESCOSEM
contd 710	PHIN	contd 160	PHIN
720/AK/Q	PHIN	160AQ	PHIN
730/Q	PHIN	160A	PHIN
730K	PHIN	160B	PHIN
741	SGS	160BQ	PHIN
750/A	PHIN	160C	PHIN
750AQ/B	PHIN	160Q	PHIN
750K/Q	PHIN	182	SIE
760/Q	PHIN	192	SIE
760K	PHIN	202	SIE
770	ATES	210D	PHIN
790A	THCF	220D	PHIN
790B	THCF	230	PHIN
790C	THCF	250	ITT
790KB	THCF	260	SIE
790KC	THCF	270	MULL
790KD	THCF	270Q	PHIN
790LA	THCF	280	PHIN
790LB	THCF	290/A	VAD
790LC	THCF	300	ITT
790NB	THCF	350/X	ITT
790NC	THCF	350Y	ITT
790ND	THCF	360	ITT
790X	THCF	370	ITT
790K/L/M	SESCOSEM	380	ITT
800C	ITT	400	PHIS
810	SGAI	410	PHIS
810AD/D	SGAI	410A	PHIS
810AT/T	TFKH	410B	PHIS
840	ITT	410D	PHIS
850	PHIN	420	VAD
850Q	PHIN	430/N	ITT
860	PHIN	450	PHIN
860Q	PHIN	450A	PHIN
870	PHIN	460	SESCOSEM
880	PHIN	940/E	SGAI
900/Q	PHIN	4510	SIE
920T	VAD		
931	ITT		
950R	ITT		
960	TFKH		
970Q	PHIN	TDA 0470/D	ITT
980	PHIN	0759-CM	THCF
980A	PHIN	1001	PHIN
980AQ	PHIN	1001T	PHIN
980Q	PHIN	1002/Q	PHIN
990Q	PHIN	1003	PHIN
1800/A	THCF	1004	PHIN
		1005	PHIN
		1006	PHIN
		1009	PHIN
TCA 110	TFKH	1021	PHIS
120	TFKH	1022	PHIN
130	TFKH	1031	ITT

DISCONTINUED TYPES (CONTD)

TYPE NUMBER	SPONSOR	TYPE NUMBER	SPONSOR
TDA cont d		TDA cont d	
1034	PHIS	1420V	SGAI
1034B	PHIN	1490-SP5/1	SGAI
1034D	PHIN	1491-SP5/2	SGAI
1034N	PHIN	1496	MULL
1034NB	PHIN	1640C/P	MULL
1034ND	PHIN	1641C/P	MULL
1035	ITT	2000	SIE
1040	THCF	2002AH/AV	SGAI
1042N	THCF	2020E	SGAI
1043	ITT	2150	SGAI
1044F	ITT	2160	SGAI
1049	MULL	2500/Q	PHIN
1051	THCF	2511	PHIN
1052/A	RTC	2521	PHIN
1053	ITT	2550	PHIN
1054	SGAI	2570/Q	PHIN
1056	THCF	2571/Q	PHIN
1056N	THCF	2575/Q	PHIN
1058	SIE	2580/Q	PHIN
1059	RTC	2590/Q	PHIN
1063-RP	THCF	2590S	PHIN
1065-DP	THCF	2600/Q	PHIN
1066-DP	THCF	2610	PHIN
1067-DP	THCF	2610AQ/Q	PHIN
1067N-EP	THCF	2611	PHIN
1070	MULL	2612Q	PHIN
1071	MULL	2620/Q	PHIN
1086	TFKH	2630/Q	PHIN
1087	TFKH	2631/Q	PHIN
1089	PHIN	2650	PHIN
1091	RTC	2670	PHIN
1092T	PHIN	2671	PHIN
1098	THCF	2680	PHIN
1101-SP	THCF	2680A	PHIN
1104-DP	THCF	2690	PHIN
1104-SP	THCF	2690A	PHIN
1111-SP	THCF	2740	PHIN
1135	ITT	2740A	PHIN
1136	ITT	2750	PHIN
1140	SGAI	2760	PHIN
1150	SGAI	2770	PHIN
1160	SGAI	2780	PHIN
1180	SGAI	2790/Q	PHIN
1210	SGAI	2800	PHIN
1230	SGAI	2850	SIE
1280	SGAI	2875	SIE
1327A/B	ITT	3000/S	SIE
1330	ITT	3060	PHIN
1335	ITT	3060R	PHIN
1370	SGAI	3065	PHIN
1405	SGAI	3320	SGAI
1410H	SGAI	4000	SIE
1410V	SGAI	4100	SIE
1412	SGAI	4250B	PHIN
1415	SGAI		
1420H	SGAI	4250D	PHIS

DISCONTINUED TYPES (CONTD)

TYPE NUMBER	SPONSOR	TYPE NUMBER	SPONSOR
TDA 4280	SIE	TDD 0101	ITT
5900	SIE	0102	ITT
7270	SGAI	0105	ITT
		0110	ITT
		1080	ITT
		1605	ITT
		1606	ITT
		1608	ITT
TDB 0082-CD	THCF	1610	ITT
0081-DP	THCF	1612	ITT
0714-CM	THCF	1615	ITT
2117-CM	THCF	1618	ITT
2117-KM	THCF	1624	ITT
2117-SP	THCF		
2137-CM	THCF	TDE 0082-CM	THCF
2137-KM	THCF	1064	THCF
2137-SP	THCF	1617-CM	THCF
2905-CM	THCF	2117-CM	THCF
2905A-CM	THCF	2117-KM	THCF
2912-CM	THCF	2117-SP	THCF
2915-CM	THCF	2137-CM	THCF
3001-DP	THCF	2137-KM	THCF
3002-DP	THCF	2137-SP	THCF
3003-DP	THCF		
TDC 0081-CM	THCF	TDF 1084	PHIN
0158-DP	THCF		
0759-CM	THCF	TEB 0087	THCF
1027-	VAD		
2117-CM	THCF	TEC 1025-CM	THCF
2117-KM	THCF		
2117-SP	THCF		
2137-CM	THCF		
2137-KM	THCF		
2137-SP	THCF		
2905-CM	THCF		
2905A-CM	THCF		
2912-CM	THCF		
2915-CM	THCF		

TYPE NUMBERS REGISTERED WITH PRO ELECTRON
BUT NOT PUBLISHED BY THE SPONSOR (CUSTOMIZED..)

TYPE NUMBER	SPONSOR	TYPE NUMBER	SPONSOR
TCA 570	PHIN	TDA 2760L	PHIN
580	PHIN	contd 2770L	PHIN
590	PHIN	2771	PHIN
810A	PHIN	2771L	PHIN
980D	PHIN	2780Q	PHIN
		2780AQ	PHIN
		2810	PHIN
		2910	PHIN
		3521	PHIN
		3580	PHIN
		4004	PHIN
TDA 0301D	PHIN	5000D	PHIN
0308D	PHIN	5001D	PHIN
0319D	PHIN	5002D	PHIN
0324D	PHIN		
0339D	PHIN	TDB 1095	PHIN
0358D	PHIN		
0555D	PHIN		
0723D	PHIN	TEA 1004	NATSC
0741D	PHIN	1006	PHIN
0748D	PHIN		
0832	PHIN	UAA 1002	PHIN
0834	PHIN	1030	PHIN
0837	PHIN	3005	PHIN
0838	PHIN		
1000	PHIN	UAB 1010	PHIN
1007	PHIN		
1012	PHIN	UAD 1020	PHIN
1013	PHIN		
1025	PHIN		
1025Q	PHIN		
1026	PHIN		
1036	PHIN		
1038	PHIN		
1039	PHIN		
1060R	PHIN		
1458D	PHIN		
1500	PHIN		
1501	PHIN		
2530A	PHIN		
2572	PHIN		
2572A	PHIN		
2572L	PHIN		
2574	PHIN		
2660	PHIN		
2661	PHIN		
2750L	PHIN		

GENERAL AND ELECTRICAL DATA

GENERALITES ET PARAMETRES ELECTRIQUES

ALLGEMEINE UND ELEKTRISCHE DATEN

AUDIO AMPLIFIERS

GENERAL DATA
GENERALITES
ALLGEMEINE DATEN

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAA263	LOW-LEVEL AMPLIFIER For use from D.C. up to 600 kHz	3-stage, direct coupled low level amplifier	CD150	CM	4	1
TAA480	LOW FREQUENCY AMPLIFIER For use as channel amplifier in telephone carrier equipment	Push-pull configuration of the output stage	CD151	CM	10	2
TAA611A TAA611B TAA611C	AUDIO AMPLIFIER For radio receivers, records-players	Low distortion, low quiescent current and high input impedance	CD198A CD198B CD198C CD198D	CM QP QP RP RP RP	10 14 14 14 14 14	2 4 4 1 2 3
TAA621	AUDIO AMPLIFIER For use in TV sets	Self centering bias, low quiescent output current, no cross over distortion and high efficiency	CD200	RP RP RP	14 14 14	1 2 3
TBA641A TBA641B	AUDIO AMPLIFIER For portable radio receivers, tape recorders, records player, and industrial application	Low quiescent current, low distortion, self centering bias and high input impedance	CD210 CD210	RP QP RP RP RP	14 14 14 14 14	3 4 1 2 3
TBA800 TBA800A	AUDIO POWER AMPLIFIER		CD213 CD213	RP RP	12 12	1 2
TBA810 TBA810A TBA810CB TBA810 ^{CBA} TBA810P TBA810AP TBA810S TBA810SH TBA810AS	AUDIO POWER AMPLIFIERS AF class B amplifier	high output current, very low harmonic and cross-over distortion The TBA810SH is provided with a thermal limiting circuit	CD195 CD195 CD196 CD194 CD197 CD196 CD194 CD197 CD197	RP RP RP RP RP RP RP RP RP	12 12 12 12 12 12 12 12 12	2 1 4 2 4 2 2 1 2

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBA820 TBA820CM TBA820M	AUDIO AMPLIFIER For AF class B amplifier		CD214A CD214B CD214C	QP CM DP	14 10 8	6 3 9
TBA830R	MICROPHONE AMPLIFIERS For piezoelectric microphones in telephone sets		CD118	CM	4	1
TBA915 TBA915G	AM AMPLIFIER Used in small communication receivers.		CD143 CD143	CM SP	10 9	2 2
TCA150KA TCA150KB TCA150NA TCA150NB TCA150NBT	POWER AF AMPLIFIER For radio receivers, car radios, TV receivers, phonographs, tape recorders		CD148 CD148 CD148 CD148 CD148	RP RP RP RP RP	14 14 14 14 14	1 1 1 2 2
TCA760B	AUDIO AMPLIFIER For applications in battery and mains fed equipement		CD168	DP	16	3
TCA830 TCA830A TCA830S TCA830SR	AF POWER AMPLIFIER Portable radio-sets AUDIO POWER AMPLIFIER WITH THERMAL SHUT-DOWN Use as a low frequency class B amplifier	wide range supply voltage, high output current, very low harmonic	CD195 CD195 CD195 CD195	RP RP RP RP	12 12 12 12	1 2 1 4
TCA940 TCA940E TCA940N	AUDIO POWER AMPLIFIER	audio power amplifier with short circuit protection and thermal shut-down	CD122 CD122 CD122	RP RP RP	12 12 12	2 2 2

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

AUDIO AMPLIFIERS

GENERAL DATA
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1002A	RECORDING PREAMPLIFIER CIRCUIT For record/playback functions (except for audio power output amplifier)	preamplifier for microphone or play back recording amplifier with automatic level control and a dynamic limiter	CD229	DP	16	3
TDA1004A	AUDIO AMPLIFIER For use in car radios	2 separate amplifiers	CD230	DP	16	14
TDA1009	2X6W STEREO AUDIO POWER AMPLIFIER for use as a low frequency class B amplifier for mains-fed and battery supplied record players, tape recorders and domestic radio receiver.	Complete stereo output power function in addition to control function.	CD343	DP	16	14
TDA1010 TDA1010A	6W AUDIO POWER AMPLIFIER For use in car radio amplifier with 4 Ω and 2 Ω load impedances.	Separated preamplifier and power amplifier. High output power Good ripple rejection. Thermal protection.	CD344 CD344	SP SP	9 9	2 2A
TDA1011 TDA1011A	2 to 6W AUDIO POWER AMPLIFIER especially designed for portable radio and recorder applications.	Separated preamplifier and power amplifier. High output power. Thermal protection. High input impedance. Low current drain.	CD345 CD345A	SP SP	9 9	2 2
TDA1012	RECORDING/PLAY-BACK AND 2W AUDIO POWER AMPLIFIER. designed for applications in radio-recorders and recorders.	Power amplifier. Preamplifier. Automatic Level Control(ALC) circuit. Voltage stabilizer.	CD346	DP	16	3
TDA1013	4W AUDIO POWER AMPLIFIER WITH D.C. VOLUME CONTROL. very suitable for applications in mains-fed apparatus as : television receivers and record players.	Audio amplifier with a well defined open loop gain and a fixed integrated closed loop gain.	CD347	SP	9	2
TDA1028	AUDIO SWITCH	Electronic 4-pole switch with 2 switching positions in operational amplifier techniques.	CD328	DP	16	2

NOTES : (1) Shape and material, see outlines code
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(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1029	AUDIO SWITCH	Electronic 2-pole switch with 4 switching positions in operational amplifier techniques	CD231	DP	16	2
TDA1037 TDA1037D	AF AMPLIFIER	AF amplifier in space-saving single-in-line 9 package. He has a particularly wide range of battery voltage.	CD317	SP DP	9 18	1 3A
TDA1042	POWER AUDIO AMPLIFIER (10W-14V) For use in car radios and Hi-Fi systems	Amplifier (10W-14V) with overloading system		RP	14	1
TDA1045	AF AMPLIFIER For use in battery operating radio receivers or cassette tape recorders	Differential preamplifier, input double emitter follower, DC output voltage stabilizer	CD135	QP	14	2
TDA1054M	PREAMPLIFIER For cassette recorders with ALC (automatic level control)	Low noise preamplifier, ALC system, high gain equalization amplifier, supply voltage rejection facility, (the electrical characteristics are referring to the test circuit - see CD323)	CD323	DP	16	6
TDA1088	TV SOUND CHANNEL 2-WATT OUTPUT designed for use as the entire sound function in television receivers.	DC Volume Control Attenuation 70 dB typ Limiter gain of 70 dB Limiting threshold typically Less Than 200 μ V Automatic thermal shutdown. Over current limiting.	CD348	EP	16	3
TDA1099-SP	2X10W LOW FREQUENCY STEREO AMPLIFIER. intended for use in automatic radio applications.	Specified working with 4 or 2 Ω load. Thermal protection. Load current protection. Load dump protection.	CD349	SP	11	1
TDA1100-SP	POWER AUDIO AMPLIFIER 8 TO 20 W. with differential inputs especially intended for use as audio high fidelity amplifier.	Thermal protection. Load short circuit protection.	CD350	SP	11	1
TDA1102-SP TDA1103-SP			CD351 CD352	SP SP	11 11	1 1

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

AUDIO AMPLIFIERS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1510	24W BTL or 2X12W STEREO POWER AMPLIFIER. developed for car radio applications and also to drive low-impedance loads ($< 1,6 \Omega$)	Load dump protection. AC and DC short-circuit safe to ground. Thermal protection. Speaker protection in bridge configuration. Complete SOAR protection.	CD353	SP	13	1
TDA1512	12 TO 20 W HI-FI AUDIO POWER AMPLIFIER. designed for assymetrical or symmetrical power supplies for mains-fed apparatus.	Thermal protection./Low intermodulation distortion Low transient intermodulation distortion. Built-in output current limiter./ Low input offset voltage/ Output stage with low cross-over distortion.	CD354	SP	9	3
TDA1905	5W AUDIO POWER AMPLIFIER with muting intended for use as low frequency power amplifier in a wide range of applications in radio or TV sets.	Protection against chip over temperature. High supply voltage rejection. Low "switch-on" noise Voltage range 4V to 30V.	CD355A	DP	16	6B
TDA1908 TDA1908A	8W AUDIO POWER AMPLIFIER intended for low frequency power applications.	Protection against chip over temperature. Soft-limiting in saturation condition. High supply voltage rejection. Very low noise.	CD355B CD355B	RP RP	12 12	1 2
TDA1910	10W HIFI AUDIO POWER AMPLIFIER intended for use in HiFi audio power applications as high quality TV sets.	Protection against chip over temperature. Very low noise. High supply voltage rejection.	CD355C	SP	11	2
TDA2002H TDA2002V	8W CAR RADIO AUDIO AMPLIFIER designed for driving low impedance loads (down to $1,6 \Omega$)	Protection against -short circuit -thermal over range. -fortuitous open ground. -polarity inversion. -load dump voltage surge.	CD356 CD356	SP SP	5 5	1 2
TDA2003H TDA2003V	10W CAR RADIO AUDIO AMPLIFIER same configuration as the TDA2002.	DC and AC short circuit between all pins and ground protection.	CD357 CD357	SP SP	5 5	1 2

NOTES : (1) Shape and material, see outlines code
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(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2004	10+10W STEREO AMPLIFIER. especially designed for car radio applications.	Low distortion. Low noise. Protections against : -output AC short circuit to ground. -very inductive loads -overrating chip T°. -load dump voltage surge. -fortuitous open ground. -polarity inversion.	CD358	SP	11	2
TDA2005	20W BRIDGE BOOSTER FOR CAR RADIO. specifically designed for car radio applications.	Protection against -output DC and AC short circuit to ground or across the load. -overrating chip temperature (150°C) -load dump voltage surge.	CD358	SP	11	2
TDA2006H TDA2006V	10W-AUDIO POWER AMPLIFIER with short circuit protection and thermal shut-down intended for use as a low frequency class "AB" amplifier.	High output current. Very low harmonic and cross-over distortion Short-circuit protection. Thermal shut-down system.	CD359 CD359	SP SP	5 5	1 2
TDA2008	12W AUDIO AMPLIFIER. designed for driving low impedance loads (down to 3,2 Ω)	High reliability. Thermal protection High output current capability Very low harmonic and cross over distortion.	CD360	SP	5	2
TDA2010	HI-FI AUDIO POWER AMPLIFIER (12W) WITH SHORT CIRCUIT PROTECTION AND THERMAL SHUT-DOWN Intended for use as a low frequency class B amplifier	Provides 12W output power (d=1%) at + 14V/4ohms; high output current (up to 3,5A) and has very low harmonic and cross-over distortion	CD337	QP	14	4
TDA2020 TDA2020D	HI-FI AUDIO POWER AMPLIFIER (20W) WITH SHORT CIRCUIT PROTECTION AND THERMAL SHUT-DOWN Intended for use as a low frequency class B amplifier	Provides 20W output power (d=1%) at + 18V/4ohms; high output current (up to 3,5A) and has very low harmonic and cross-over distortion	CD337 CD337	QP DP QP EP RP	14 14 14 14 14	4 6 4 2 3

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

AUDIO AMPLIFIERS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2030H TDA2030V	14W HI-FI AUDIO POWER AMPLIFIER with short circuit protection and thermal shut-down intended for use as a low frequency class A B amplifier.	High output current. Very low harmonic and cross-over distortion. Short circuit protection.	CD359	SP SP	5 5	1 2
TDA2054M	PREAMPLIFIER WITH ALC FOR MONO AND STEREO C _r O ₂ CASSETTES RECORDERS intended as preamplifier in tape and cassette recorders and players (C _r O ₂) dictaphone, compressor and expander in telephonic equipment.	Low noise preamplifier. Automatic level control system High gain equalization amplifier.	CD361	DP	16	6
TDA2310	HI-FI DUAL AMPLIFIER High quality class A preamplifier intended for extremely low distortion applications.	Very high dynamic range. Very low noise. No pop-noise. Large output voltage swing. Single or split supply operation. Output short circuit protection.	CD362	DP	14	6
TDA2610A	SOUND OUTPUT CIRCUIT For use in colour and B/W TV receivers Current stabilizing circuit incorporated to obtain a constant current drain and an output power of 4 W.	Short circuit protected output. Thermal shut-down circuit. Low number of external components.	CD234	EP	16	1
TDA2611A	5W HIGH SUPPLY VOLTAGE AUDIO POWER AMPLIFIER. Very suitable for application in mains-fed apparatus.	Thermal protection. Well defined open loop gain circuitry. Fixed integrated closed loop gain. Possibility for increasing the input impedance.	CD363	SP	9	2
TDA2612	HI-FI POWER AMPLIFIER. Intended for HiFi television sets, radios, record players, tape recorders.	Low harmonic distortion. Low intermodulation distortion Low transient intermodulation. Good hum suppression.	CD364	EP	16	1
TDA2870	10W AF POWER AMPLIFIER. intended for use in autoradio sets.	High output power (12W) Output current (3,5 A) Short circuit protection.	—	SP	7	1

NOTES : (1) Shape and material, see outlines code
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(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA3410	LOW NOISE DUAL PREAMPLIFIER with tape autoreverse facility for the amplification of low level signals in applications requiring very low noise performance, as stereo cassette players.	Very low noise. High gain. Low distortion. Single supply operation Wide supply range. SVR = 120 dB Short circuit protection.	CD365	DP	16	6B
TDA4260	AF AMPLIFIER		CD366	DP	8	6
TDA4920	STEREO BRIDGE AF AMPLIFIER.		CD367	SP	9	1
TDD0246	AMPLIFIER FOR DYNAMIC TELEPHONE-MICROPHONE.	Without power supply. Without additional lines. Low supply current. Independent of line polarity.	CD368	DP	8	6

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

FM-IF AMPLIFIERS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGING	
				1	2
TAA661A TAA661B	FM-IF AMPLIFIER LIMITER AND DETECTOR For use in TV sound IF or FM amplifiers	Limiter amplifier, coincidence detector, voltage regulator	CD201A CD201B	CM QP	10 14
TBA120A/AS TBA120C TBA120CQ TBA120D TBA120DQ TBA120S TBA120T TBA120U	FM-IF AMPLIFIER WITH DEMODULATOR For use in the sound section of TV receivers and FM-IF radio receivers	Symmetrical coincidence demodulator, limiting and demodulation	CD110 CD176 CD176 CD176 CD176 CD110 CD154 CD154	QP DP QP DP QP DP DP DP	14 14 14 14 14 14 16 16
TBA460 TBA460Q	AM/FM IF- AND AF-AMPLIFIER For battery and AC operated receivers	with AGC limiting characteristics and audio pre- and driver-stages	CD114 CD114	DP QP	16 16
TBA750 TBA750B TBA750C TBA750CQ TBA750Q	LIMITER AMPLIFIER Suitable for all FM applications up to an IF of 600 MHz. It is intended for 4,5 MHz, 5,5 MHz or 10,7 MHz	FM detector, DC volume control, AF preamplifier	CD332 CD167 CD167A CD167A CD332	DP DP DP QP QP	16 16 16 16 16
TCA3089	COMPLETE IF-FM SYSTEM WITH AFC-ACC		CD235A	DP	16
TCA3189	FM-IF HIGH QUALITY RADIO SYSTEM providing a complete subsystem for amplification of 10,7 MHz FM signal in HiFi car radios and communication receiver s.	Externally programmable audio level on channel step for search control. Programmable AGC voltage and AFC for tuner. Interchannel muting (squelch) Direct drive of tuning meter. Direct drive of field strength meter.	CD235B	DP	16
TCA4500A	FM STEREO DEMODULATOR designed for use in HiFi stereo receivers and car radios.	Phase-lock-loop stereo decoder which incorporates a variable separation control, and in which sensitivity to the third harmonics of both the pilot and sub-carrier frequencies has been eliminated by the use of appropriate, digitally generated, waveforms in the phase-lock loop and decoder sections.	CD369	DP	16

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1200	FM-IF RADIO SYSTEM For use in Hi-Fi, car-radios and communication receivers	FM amplification and detection, interchannel controlled muting, AFC and delayed AGC, switching of stereo decoder, driving of a field strength meter	CD220	DP	16	68
TDA2190 TDA2190F	COMPLETE TV SOUND CHANNEL WITH V.C.R. AND C.C.C. suitable for all TV standards with FM modulation.	IF limiter-amplifier and low-pass filter. FM detector. DC volume control. AF preamplifier and AF power amplifier with thermal shut-down protection and choice of class B or CCC-operation mode. VCR facility with common pin for input and output (playback and recording). VCR input and FM detector DC switching for recording and playback.	CD370 CD370	DP EP	16 16	6 4
TDA2546	QUASI SPLIT SOUND CIRCUIT WITH 5,5 MHz DEMODULATOR.		CD371	DP	18	4
TDA2790 TDA2791	TELEVISION SOUND COMBINATION. designed as a four-stage differential amplifier to obtain good noise and interference suppression.	Limiter/amplifier F.M. detector. Physiological DC volume control. D.C. tone control.	CD372 CD373	DP DP	16 16	3 3
TDA2840 TDA2841	IC CONCEPT FOR SOUND CHANNEL IN TV RECEIVERS. (with AFC for TDA2841)	The audio amplifier, protected against short circuit and thermal overload can deliver up to 15W output power. The use of quasi parallel sound systems reduces interferences of the sound carrier in the picture and increases the signal to noise ratio in the sound channel.	CD374 CD374	DP DP	14 16	1 1
TDA3190	COMPLETE TV SOUND CHANNEL. performing all the functions needed for the TV sound channel.	IF limiter amplifier. Active low pass filter. FM detector. DC volume control. AF preamplifier. AF output stage.	CD375	DP	16	68

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

FM-IF AMPLIFIERS

GENERAL DATA
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA4200	FM-IF DEMODULATOR FOR AUTO RADIO.	The AF signal can continually be lowered by up to 40 dB in a range near the limit of applications. The AF supply is highly resistive.	CD376	DP	18	3
TDA4942	TV STEREO MATRIX WITH TONE CONTROL.		CD377	DP	16	1
TEA5560	FM/IF SYSTEM. intended for car radios and home receivers equipped with a ratio detector.	3 stage IF limiting amplifier. 15 dB field-strength dependent muting circuit Stand by ON/OFF switching circuit. Voltage stabilizer, for the internal circuit current and external current up to 10 mA. Adjustable gain (DG = 15 dB).	CD378	SP	9	4

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAA570	LIMITER AMPLIFIER	4-stage amplifier, with FM detector and remote control stage	CD153	CM	10	2
TBA780	WIDE-BAND AMPLIFIER, FM DETECTOR, AUDIO PREAMPLIFIER/DRIVER	Multistage wide-band IF amplifier/limiter section active filter, FM detector stage, electronic attenuator, Zener diode regulated power supply, AF amplifier section	CD212	DP QP	14 14	6 6
TCA420A	IF AMPLIFIER For Hi-Fi FM receivers	FM-IF amplifier, symmetrical FM detector, AFC voltage, mono/stereo switching voltage, field strength depending indicator current, automatic side response suppression	CD221	DP	16	3
TCA770A TCA770D	IF LIMITER AMPLIFIER For use in portophone sets	with very low current consumption, balanced FM detector, audio preamplifier	CD227 CD227	DP FP	16 14	3 2
TDA1035T	SOUND CHANNEL IC FOR TV RECEIVER	limiting amplifier, coincidence demodulator, circuit for electronic volume adjutement and a complete AF amplifier with preamplifier, driver and output stage in series push-pull connection.	CD162	RP	12	4
TDA1048	AM AMPLIFIER	amplifier with demodulator and electronic volume control	CD236	DP	16	1
TDA1050	IC FOR CAR RADIO RF TO DETECTOR STAGE For use in high quality A.M. car radio receivers	RF stage, oscillator/mixer, 1st and 2nd IF stages, audio detector, separate AGC detector	CD260	DP	16	3
TDA1190 TDA1190Z	COMPLETE TV SOUND CHANNEL	IF-limiter-amplifier, active low-pass filter, FM detector, DC volume control, AF output stage AF preamplifier	CD237 CD237	RP RP	12 12	1 1
TDA1235	SOUND CHANNEL FOR TV RECEIVERS.	Symmetrical IF amplifier. Symmetrical coincidence demodulator. Volume control circuit featuring Fletcher-Munson characteristics Bass and treble control. Impedance converter output stage for directly driving a power amplifier.	CD379	DP	18	1A

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

RF-IF AMPLIFIERS

GENERAL DATA
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2540 TDA2540Q	IF AMPLIFIER AND SIGNAL PROCESSOR For B/W and colour TV receivers using NPN tuners	gain controlled wide-band amplifier, video preamplifier with noise protection, AFC circuit, white spot inverter keyed AGC circuit	CD238 CD238	DP QP	16 16	3 4
TDA2541 TDA2541Q	IF AMPLIFIER AND SIGNAL PROCESSOR For B/W and colour TV receivers using PNP tuners	See TDA2540/Q	CD238 CD238	DP QP	16 16	3 4
TDA2542 TDA2542Q	TELEVISION IF AMPLIFIER AND DEMODULATOR. for E and L standards in colour and B/W television receivers using PNP tuners.	Gain controlled wide-band amplifier. Synchronous demodulator. Video preamplifier. AFC circuit. AGC circuit. Tuner AGC output (PNP tuners)	CD238 CD238	DP DP	16 16	3 4
TDA2544 TDA2544Q	TELEVISION IF AMPLIFIER AND DEMODULATOR. for colour and B/W television receivers.	Gain controlled wide-band amplifier. Low-level synchronous demodulator. White spot inverter. Video preamplifier with noise protection. AFC circuit. AGC circuit. Tuner AGC output for control of MOS tuners. External video switch.	CD238 CD238	DP QP	16 16	3 4
TDA3540 TDA3540Q	TELEVISION IF AMPLIFIER AND DEMODULATOR. for colour and B/W television receivers using NPN tuners.	Gain controlled wide-band amplifier. Synchronous demodulator. White spot inverter. Video preamplifier with noise protection. AFC circuit. AGC circuit. Tuner AGC output (PNP tuners) External video switch.	CD238 CD238	DP QP	16 16	3 4
TDA3541 TDA3541Q	TELEVISION IF AMPLIFIER AND DEMODULATOR for colour and B/W television receivers using PNP tuners.	Gain controlled wide-band amplifier. Synchronous demodulator. White spot inverter. Video preamplifier with noise protection. AFC circuit. AGC circuit. Tuner AGC output (PNP tuners) External video switch.	CD238 CD238	DP QP	16 16	3 4

NOTES : (1) Shape and material, see outlines code
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAA991D TAA991Q	AM/FM IF-AMPLIFIER AC-and battery-operated radio receivers		CD108 CD108	DP QP	14 14	1 1
TBA570A TBA570AQ	AM/FM RADIO RECEIVER CIRCUITS for use in small low-cost AM portable receivers as well as in high quality battery or mains-fed AM and AM/FM receivers.	AM mixer Oscillator IF amplifier AGC amplifier AM detector and capacitor. FM/IF limiting amplifier. Audio preamplifier and driver.	CD163 CD163	DP QP	16 16	3 4
TBA700	AM/FM RADIO RECEIVER CIRCUIT	(output stage 1W) Note: package DP 16/3 with internal copper slug	CD166B	DP	16	3
TDA1046	AM AMPLIFIER For use in autoradio (30 MHz)	HF prestage and oscillator, mixer, IF amplifier demodulator, preamplifier	CD261	DP	16	1
TDA1047	FM-IF-AMPLIFIER CIRCUIT WITH DEMODULATOR	8-stage amplifier, limiter and demodulator	CD262	DP	18	3
TDA1083	AM/FM AND AUDIO-CIRCUIT with audio power amplifier.	An internal Z-diode stabilizes the supply voltage at 13 V which allows, with the aid of a resistor and a rectifier, the circuit to be driven by a higher external supply voltage.		DP	16	5
TDA1090	SIGNAL PROCESSING SYSTEM providing all FM-IF and all AM functions.	DC AM/FM SWITCHING. 12 μ V limiting threshold. 5 μ A A-M sensitivity. Balanced AM mixer. Meter drive. Internal regulator. Self-contained muting (squelch)		DP	20	1

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

AM - FM AMPLIFIERS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1220 TDA1220A	AM-FM RADIORECEIVER SYSTEM designed for use in portable and home AF-FM radio sets as well as in industrial communication systems.	AM section : Preamplifier and double balanced mixer. local oscillator IF amplifier with internal AGC. balanced detector. AF preamplifier. FM section : IF amplifier. quadrature detector. AF preamplifier.	CD381 CD382	DP DP	16 16	68 68
TDA2048	Four-stage controlled AM-broad-band amplifier.		CD383	DP	18	3
TDA4281T TDA4282T	QUASI PARALLEL SOUND CIRCUIT. CONTROLLED AM-WIDE BAND AMPLIFIER WITH FM DEMODULATOR (and power regulation for TDA4282T)		CD384 CD384	DP DP	22 22	2 2
TDA5700 TDA5700Q	AM/FM RADIO RECEIVER. for use in high quality battery or mains-fed AM and AM/FM receivers as well as small low-cost AM portable receivers.	AM Mixer. Oscillator IF amplifier. AGC amplifier. AM detector and capacitor. FM/IF limiting amplifier.	CD385 CD385	DP QP	16 16	3 4
TEA5550	AM CAR RADIO RECEIVER.	Double balanced mixer. "One-pin" oscillator. IF amplifier. AM envelope detector. AGC stages. Voltage stabilizer. Simple DC switch for AM/FM radios.	CD386	DP	16	3

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAA495	OPERATIONAL AMPLIFIER	Three stage direct coupled , wideband amplifier	CD178	FC	6	2
TAA521 TAA521A TAA522	OPERATIONAL AMPLIFIER For servo-systems, analog computers, measuring equipment, ...		CD115 CD115 CD115	CM DP CM	8 14 8	1 1 1
TAA761 TAA761A TAA761G TAA761GG TAA761K TAA761W TAA762/S TAA765 TAA765A TAA765G TAA765GG TAA765W	OPERATIONAL AMPLIFIER For use in automatic controls, automobile electronics, etc...		CD117A CD117B CD117C CD117C CD117B CD117C CD117A CD117A CD117B CD117C CD117C CD117C	CM DP FP FP μ FP CM CM DP FP FP FP	6 6 6 6 6 6 6 6 6 6 6 6 6	2 1 3 4 1 1 2 2 1 3 4 1
TAA861 TAA861A TAA861G TAA861GG TAA861W TAA862 TAA865 TAA865A TAA865G TAA865GG TAA865W	OPERATIONAL AMPLIFIER For automatic control, automobile electronics, AF circuits, analog computers, etc...		CD117A CD117B CD117C CD117C CD117C CD117A CD117A CD117B CD117C CD117C CD117C	CM DP FP FP FP CM CM DP FP FP FP	6 6 6 6 6 6 6 6 6 6 6 6	2 1 3 4 1 2 2 1 3 4 1
TAA2761 TAA2761A TAA2762 TAA2765 TAA2765A	DUAL OPERATIONAL AMPLIFIER	(For single amplifier performance see TAA761)	CD145 CD145 CD145 CD145 CD145	CM DP CM CM DP	8 8 8 8 8	2 6 2 2 6
TAA4761A TAA4765A	QUAD OPERATIONAL AMPLIFIER	(For single amplifier performance see TAA761)	CD164 CD164	DP DP	14 14	1 1

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAB1042D TAB1042P	QUAD PROGRAMMABLE OPERATIONAL AMPLIFIER especially suitable for use in active filter applications, comparators, oscillators and battery powered amplifiers.	Internally compensated. Operation guaranteed down to $\pm 1,5$ V supply No latch-up Programmable over 100 : 1 current range Gain bandwidth product up to 4 MHz. Built-in short circuit protection.	CD387	DC DP	16 16	1 6
TAB1453 TAB1453A TAB1453W	PNP OPERATIONAL AMPLIFIERS. suitable for use in a wide range of applications, such as control technology, automotive electronics, analog computer technology,...	Large supply voltage range. Large control range. High output current Simple frequency compensation (10pF) Low current consumption. Low saturation voltage-TTL compatible. Common mode range to -0,2 V.	CD388	CM DP FP	6 6 6	1 1 1
TBA221 TBA221A TBA221B TBA221G TBA221GG TBA221K TBA221N TBA221W TBA222 TBA222Q TBA222S	OPERATIONAL AMPLIFIERS	Amplifier with asymmetrical output	CD101A CD101B CD101A CD101A CD101C CD101C CD101C CD101A CD101A CD101C CD101A CD101A CD101A	CM DP DP FP FP FP FP μ CM CM FP CM CM CM	8 14 8 8 8 8 8 7 8 8 8 8 8 8	1 1 1 7 6 6 1 1 4 2 2 2 2
TBA231A	DUAL LOW NOISE OPERATIONAL AMPLIFIER Used in phono, TV, etc...	High gain, output short circuit protected and large input voltage range	CD203	DC DP	14 14	6 6
TBB0324A	QUAD PNP OPERATIONAL AMPLIFIER	4 independent highly amplifying, and frequency compensated operational amplifiers. Low output saturation voltage. High negative input common mode voltage. Input current and transistion frequency are compensated.	CD389	DP	14	1

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBB0747 TBB0747A TBC0747	DUAL OPERATIONAL AMPLIFIERS	Large common-mode voltage range Short circuit protection	CD247 CD247 CD247	CM DP CM	10 14 10	1 1 1
TBB0748 TBB0748B TBC0748	OPERATIONAL AMPLIFIERS.	Large common-mode voltage range High differential input voltage range Short circuit protection	CD248 CD248 CD248	CM DP CM	8 8 8	1 6 1
TBB1331A	OPERATIONAL AMPLIFIER with Darlington input. particularly suited for use as integrator.	High input resistance. Large supply voltage range. Large control range. Simple frequency compensation.	CD390	DP	6	1
TBB1458 TBB1458B TBC1458	DUAL OPERATIONAL AMPLIFIERS.	No frequency compensation required, short circuit protection, wide common-mode and differential voltage ranges, low power consumption, no latch up, internally compensated	CD249 CD249 CD249	CM DP CM	8 8 8	1 6 1
TBB2331 TBB2331B TBC2332 TBE2335 TBE2335B	DUAL OPERATIONAL AMPLIFIERS.	OP AMP with darlington input ; corresponds to 2 independant, internally compensated "TCA311"	CD314 CD314 CD314 CD314	CM DP CM CM	8 8 8 8	2 6 2 6
TBB4331A TBE4335A	QUAD OPERATIONAL AMPLIFIERS.	OP AMP with darlington input ; corresponds to 4 independant, internally compensated "TCA311"	CD315 CD315	DP DP	14 14	1 1
TCA220 TCA220A	TRIPLE OPERATIONAL AMPLIFIER	3 identical high gain amplifiers	CD175 CD175	DP DC	16 16	3 6

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TCA311 TCA311A TCA311G TCA311GG TCA311W TCA312 TCA315 TCA315A TCA315G TCA315GG TCA315W	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT For control applications and automobile electronics	very high input resistance, wide common mode range, large supply voltage range, large control range, high output current, low out saturation voltage, TTL compatibility, wide temperature range (TCA312)	CD120A CD120B CD120C CD120C CD120C CD120A CD120A CD120B CD120C CD120C CD120C	CM DP FP FP FP CM CM DP FP FP FP	6 6 6 6 6 6 6 6 6 6 6 6	2 1 3 4 1 2 2 1 3 4 3 1
TCA321 TCA321A TCA321G TCA321GG TCA321W TCA322 TCA325 TCA325A TCA325G TCA325GG TCA325W	OPERATIONAL AMPLIFIER Used as a Schmitt-trigger or comparator for control applications and automobile electronics	wide common-mode range, wide control range, high output current, TTL compatibility, large supply voltage range, protection against destruction, low output saturation voltage wide temperature range (TCA322)	CD223A CD223B CD223C CD223C CD224C CD224A CD223A CD223B CD223C CD223C CD224C	CM DP FP FP CM CM CM DP FP FP FP	6 6 6 6 6 6 6 6 6 6 6	2 1 3 4 1 2 2 1 3 4 1
TCA331 TCA331A TCA331G TCA331GG TCA331K TCA331W TCA332 TCA335 TCA335A TCA335G TCA335GG TCA335W	OPERATIONAL AMPLIFIER WITH DARLINGTON INPUT For a wide range of applications such as measurement-and-servo-systems, automobile electronics, AF circuits, analog computers...	very high input resistance, wide common-mode range, large supply voltage range, large control range, high output current, simple frequency compensation, wide temperature range (TCA332)	CD225A CD225B CD225C CD225C CD225B CD225C CD225A CD225A CD225A CD225B CD225C CD225C CD226C	CM DP FP FP μ FP CM CM CM DP FP FP FP	6 6 6 6 6 6 6 6 6 6 6 6 6	2 1 3 4 1 1 2 2 2 1 3 4 1
TCA520 TCA520B TCA520D	OPERATIONAL AMPLIFIER For low power, voltage applications, comparator in digital systems		CD103 CD103 CD103	CM DP FP	8 8 6	1 2 2

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TCA3002-DP -DC	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	Wide input voltage and common mode range. Externally programmable. No latch-up. Matched parameters. Micropower operations.	CD391	DP DG	16 16	15 4
TDA1034 TDA1034D TDA1034N TDA1034ND	OPERATIONAL AMPLIFIER For applications in high quality and professional audio equipment, in instrumentation and control circuits and in telephone channel amplifiers.	Internally compensated for gain equal or higher than three. The frequency response can be optimized with a external compensation capacitor for various applications. If very low noise is of prime importance it is recommended to use the "TDA1034N" which has guaranted noise specifications and somewhat lower input current. INPUT NOISE at f = 1 kHz VOLTAGE : 4 (TDA1034.) ; 0,6 (TDA1034N.) nV/VHZ CURRENT : 3,5(TDA1034.) ; 0,4 (TDA1034N.) pA/VHZ	CD304 CD304 CD304 CD304	CM FP CM FP	8 8 8 8	1 2 1 2
TDB0084 TDC0084 TDE0084	QUAD J-FET INPUT OPERATIONAL AMPLIFIER.	High slow rate. Low input bias and offset currents Low offset voltage temperature coefficient.		DP DP DP	14 14 14	4 4 4
TDB0118-CM TDC0118-CM TDE0118-CM	OPERATIONAL AMPLIFIER For applications requiring wide bandwidth and high slew rate. The high speed and fast settling time of these OP AMPS make them useful in A/D converters oscillators, active filters, sample and hold circuits, or general purpose amplifiers.	internal frequency compensation	CN256a CD256a CD256a	CM CM CM	8 8 8	1 1 1
TDB0124-DP -FP TDB0124A-DP TDC0124-DG -DP TDC0124A-DP TDE0124-DP TDE0124A-DP	QUADRUPLE OPERATIONAL AMPLIFIER		CD270 CD270 CD270 CD270 CD270 CD270 CD270 CD270	DP FP DP DG DP DP DP DP	14 14 14 14 14 14 14 14	4 2 4 1 4 4 4 4

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDB0146-DP TDB0146-2DP TDC0146-DP TDC0146-2DP TDE0146-DP TDE0146-2DP	PROGRAMMABLE QUAD OPERATIONAL AMPLIFIER.	4 independent high gain, internally compensated, low power programmable amplifiers. Two external resistors (R_{set}) allow the user to program the gain-bandwidth product, slew rates supply current, input bias current, input offset current and input noise.	CD392 CD392 CD392 CD392 CD392 CD392	DP DP DP DP DP DP	16 16 16 16 16 16	11 11 11 11 11 11
TDB0148-DP TDC0148-DG TDC0148-DP TDE0148-DP TDB0149-DP TDC0149-DP TDE0149-DP	QUAD OPERATIONAL AMPLIFIERS.	Four independent, high gain internally compensated, low power operational amplifiers. Class A B output stage - no crossover distortion High degree of isolation between amplifiers. Overload protection for inputs and outputs.	CD393 CD393 CD393 CD393 CD393 CD393	DP DG DP DP DP DP	14 14 14 14 14 14	4 4 4 4 4 4
TDB0155-CM -DP TDB0155A-CM TDC0155-CM TDC0155A-CM TDE0155-CM TDB0156-CM -DP TDB0156A-CM TDC0156-CM TDC0156A-CM TDE0156-CM TDB0157-CM -DP TDB0157A-CM TDC0157-CM TDC0157A-CM TDE0157-CM	J FET INPUT OPERATIONAL AMPLIFIERS.	Low input bias and offset currents. Low offset voltage and offset voltage drift, coupled with offset adjust which does not degrade drift or common-mode rejection.	CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394 CD394	CM DP CM CM CM CM DP CM CM CM CM CM DP CM CM CM CM CM CM	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
TDB0158-CM -DP TDC0158-CM TDE0158-CM -DP	DUAL OPERATIONAL AMPLIFIERS suitable for use in transducer amplifiers, DC gain blocks and all the conventional operational amplifiers circuit which now can be more easily implemented in single power supply systems.	Internally frequency compensated for unity gain. Large DC voltage gain 100 dB. Wide bandwidth (unity gain) 1MHz (temperature compensated) Very low supply current drain (500 μ A) Low input bias current (45 nA) (temperature compensated) Low input offset voltage (2mV) Offset current (5 nA) Input common mode voltage range includes ground. Differential input voltage range equal to the power supply voltage. Large output voltage swing 0 V to $\pm 1,5$ V	CD395 CD395 CD395 CD395 CD395	CM DP CM CM DP	8 8 8 8 8	8 8 8 8 8

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDB0347-DP TDB0353-CM -DP	WIDE BANDWIDTH DUAL (353) QUADRUPLE (347) J-FET INPUT OPERATIONAL AMPLIFIERS.	Very low input bias and offset currents. Low noise and offset voltage drift.	CD396 CD396 CD396	DP CM DP	14 8 8	4 1 3
TDC0714-CM	INSTRUMENTATION OPERATIONAL AMPLIFIER.	Very high voltage gain, low power consumption.		CM	8	1
TDB0791-DP -EP/12 -EP/14 -KM -SP TDC0791-KM	POWER OPERATIONAL AMPLIFIERS intended for use in a wide variety of applications including audio amplifiers, servo amplifiers, and power supplies.	Current output to 1A. Short-circuit protection. Offset null voltage capability. No latch-up. Large common-mode and differential mode ranges. Thermal overload protection.	CD338 CD338 CD338 CD338 CD338 CD338	DP EP EP KM SP KM	14 12 14 10 11 10	4 1 1 1 1 1
TDB2022-CM	OPERATIONAL AMPLIFIER For video applications or pulse amplifier		CD318	CM	8	1
TDF2902-DP -FP	QUADRUPLE OPERATIONAL AMPLIFIERS. specifically designed for automotive and industrial control systems.	Unity gain (cross frequency)temperature compensated Input bias current, temperature compensated. In the linear mode the input common-mode voltage range includes ground and the output voltage can also swing to groun, even though operated from only a single power supply voltage.	CD297	DP FP	14 14	4 2
TDF2904-DP	DUAL OPERATIONAL AMPLIFIER. specifically designed to operate from a single power supply over a wide range of voltages. Applications areas include transducer amplifiers, dc gain blocks and all conventional operational amplifier circuits which now can be more easily implemented in single power supply systems.	Internally frequency compensated for unity gain. Low input biasing current 45 nA (T° compensated) Input common-mode voltage range includes ground. Differential input voltage range equal to the power supply voltage.	CD395	DP	8	3
TDB3403-DP TDC3403-DP TDE3403-DP	QUAD LOW POWER OPERATIONAL AMPLIFIERS.	Class A B Output stage, no cross-over distorsion. Overload protection for inputs and outputs. Gain bandwidth product 1 MHz. High degree of isolation betweenf amplifiers.	CD397 CD397 CD397	DP DP DP	14 14 14	1 1 1

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDB4558-CM TDB4558-DP TDC4558-CM	DUAL WIDE BAND OPERATIONAL AMPLIFIERS. intended for a wide range of analog applications.	F_t min guaranteed 2MHz. Internally compensated. Short-circuit protection. Gain and pahse match between amplifiers. Low power consumption. Pin to pin compatible with TDB0158.	CD398 CD398 CD398	CM DP CM	8 8 8	1 3 1
TEB1025-CM	WIDE BAND VIDEO OPERATIONAL AMPLIFIER. specifically intended for use as video amplifier.	Differential inputs. Wide bandwidth (unity gain)400MHz. Schottky diode to reduce t_{st} Unlimited short-circuit periode.	CD399	CM	8	1

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBA510 TBA510Q	CHROMINANCE COMBINATION For colour TV receivers	Chrominance amplifier circuit Variable gain a.c.c. chroma amplifier circuit a.d.c. control for chroma saturation Burst output stage, colour killer stage PAL delay line driver stage	CD137 CD137	DP QP	16 16	3 4
TBA970 TBA970Q	VIDEO AMPLIFIER For TV receivers		CD215 CD215	DP QP	16 16	3 5
TDA2510 TDA2510Q	CHROMINANCE COMBINATION For colour TV receivers	Chrominance amplifier + ACC colour killer, linear electronic pot. for saturation control, chromi- nance delay line driver stage, colour burst output stage	CD243 CD243	DP QP	16 16	3 4
TDA2560 TDA2560Q	LUMINANCE AND CHROMINANCE CONTROL COMBINATION For use in decoding systems of colour TV receivers	<u>Luminance</u> DC contrast/brightness control, black level clamp, blanking-additional video output <u>Chrominance</u> gain control amplification, chrominance gain control, separate DC saturation control, combined chroma and burst output, delay line	CD244 CD244	DP QP	16 16	3 4

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

TV AMPLIFIERS (VIDEO)

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBA440 TBA440N TBA440P	TV AMPLIFIERS (VIDEO) VIDEO-IF-AMPLIFIER For B/W and colour TV sets	N : for tuner prestages with NPN transistors P : for tuner prestages with PNP transistors	CD340 CD340 CD340	DP DP DP	16 16 16	1 1 1
TBA1440 TBA1440G TBA1441	VIDEO-IF-AMPLIFIER For TV reception free of intercarrier buzz	TBA1440G : for PNP tuner prestages TBA1441 : for NPN tuner prestages	CD312A CD312A CD312A	DP DP DP	16 16 16	: : :
TDA440 TDA440S	VIDEO IF AMPLIFIER WITH DEMODULATOR For video IF amplifier for colour and monochrome TV receivers	3 symmetrical IF amplifier (1st and 2nd regulated stages), controlled colour carrier demodulator, video postamplifier, gated AGC section, delayed regulated output voltage	CD182 CD400	DP QP DP	16 16 16	9 6 6
TDA1352A TDA1352B	TV VIDEO AMPLIFIER WITH GATED AGC In colour and monochrome TV receivers	1st and 2nd IF stage	CD219 CD219	DP QP	14 14	
TDA4400 TDA4410	VIDEO IF AMPLIFIER For colour and monochrome TV receivers. TDA4400 with PNP tuners TDA4410 with NPN tuners	3 symmetrical IF regulated amplifiers, controlled colour carrier demodulator, video post-amplifier, gated AGC section for IF amplifier, delayed regulated output voltage for the tuner pre-stage	CD327 CD327	DP QP DP QP	16 16 16 16	
TDA4420 TDA4421 TDA4422	VIDEO IF and AFC CIRCUIT for colour and B/W television receivers. TDA4420 and TDA4422 with PNP tuners. TDA4421 with NPN tuners.	High gain, high stability Minimum differential error. Integrated temperature compensating circuit. White level adjustable Switchable AFC.	CD401 CD401 CD401	DP DP DP	18 18 18	1
TDA4440 TDA4450	VIDEO IF AMPLIFIER FOR COLOUR AND B/W TELEVISION RECEIVERS. TDA4440 with PNP-tuners. TDA4450 with NPN-tuners.	Very high sensitivity. Minimum differential error. Very few external components. Extreme fast AGC action-optimised for fast search tuning systems.	CD327 CD327	DP DP	16 16	

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA5500	TV VIDEO IF AMPLIFIER WITH VCR CONNECTIONS. Similar to TBA1440G but with pin 10 provided for adjusting the sync pulse level (used in the TDA5500 as standard VCR connection).	Standard VCR connection. Internal VCR switchover. Keyed control. Positive and negative video output.	CD312B	DP	16	1
TDA5600 TDA5610 TDA5611	VIDEO IF AMPLIFIER WITH AFC OUTPUT for positive and negative going signal, keyed control, AFC output and delayed tuner control. TDA5600 : positive output for PNP tuners. TDA5610 : negative output for PNP tuners. TDA5611 : negative output for NPN tuners.	Controlled demodulator. Low resistance video outputs. High integration. Large control range. High sensitivity.	CD402 CD402 CD402	DP DP DP	18 18 18	3 3 3
TDA5800 TDA5820 TDA5850	VIDEO IF CIRCUIT WITH AFC AND VCR CONNECTION. " " " " " " FOR CCIR AND FRENCH NORMS VIDEO AMPLIFIER WITH FRENCH-VCR AND IEC NORMS.		CD403 CD404 CD405	DP DP DP	22 22 8	2 2 6

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

TV AMPLIFIERS (LUMINANCE, CHROMINANCE)

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBA395 TBA395Q	PAL TV CHROMINANCE PROCESSING UNIT For solid-state colour TV receivers	Automatic chrome control colour killer, PLL subcarrier half line frequency flip-flop, built-in supply regulator	CD184 CD184	DP QP	14 14	5 3
TBA396 TBA396Q	LUMINANCE/CHROMINANCE COMBINATION For colour TV contrast, saturation and brightness	Luminance amplifier, black level clamping, beam limiting DC controls of contrast, saturation and brightness, chrominance driver	CD183 CD183	DP QP	14 14	5 3
TBA560B TBA560BQ TBA560C TBA560CQ	LUMINANCE AND CHROMINANCE CONTROL COMBINATION Used in the decoding system of colour TV receivers	Luminance and chrominance amplifier	CD161 CD161 CD161 CD161	DP QP DP QP	16 16 16 16	3 4 3 4
TCA640	CHROMINANCE AMPLIFIER FOR SECAM OR PAL/SECAM DECODERS For either a SECAM decoder or a double standard PAL/SECAM decoder.	It incorporates a blanking circuit, a burst gating circuit and a colour killer detector. The circuit also incorporates a 7,8kHz flip-flop and an identification circuit for SECAM.	CD333	DP	16	3
TCA660B	CONTRAST, SATURATION AND BRIGHTNESS CONTROL CIRC. for colour difference and luminance signals for use in colour TV receivers.	Contrast controlled by three tracking electronic potentiometer (one for luminance and the other two for (R-Y) and (B-Y) colour difference signals) Saturation control provided by two tracking electronic potentiometers. Brightness is controlled by varying the black level of the luminance at the output. Inverting amplifier is also included for matrixing the (G-Y) signal.	CD258	DP	16	3
TDA2150 TDA2151	LUMINANCE AND CHROMINANCE AMPLIFIER for colour TV receivers	Tracked DC contrast control in chrominance and luminance channels. Beam current limiting acting on contrast and brightness control. Independent videosegment output for the sync. separator. No temperature drift of the video black level output.	CD406 CD406	DP DP	16 16	5 6
TDA3560	PAL DECODER. combining all functions required for the identification and demodulation of PAL signals.	Luminance amplifier. RGB-matrix amplifier. Separate inputs for data insertion, analogue as well as digital.	CD407	DP	28	

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA3570	NTSC DECODER. combining all functions required for the identification and demodulation of NTSC signals.	Luminance amplifier. RGB-matrix amplifier. Automatic picture setting switch to preset positions of both saturation and tint controls.	CD408	DP	28	2
TDA3950 TDA3950A	CHROMINANCE COMBINAISON For use in PAL TV receivers	Internal supply line stabilization, 30 dB ACC range, fast identification, only one adjustment necessary. Designed to be used in conjunction with TBA1327-TBA396. The reference output signal is gated on TDA3950A only.	CD259 CD259	DP DP	14 14	5 5

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

TV DEMODULATORS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAA630S TAA630T	SYNCHRONOUS DEMODULATOR For PAL colour television	2 synchronous demodulators decoding matrix PAL switch, colour killer switch G-Y = 0,51 (R-Y) - 0,19 (B-Y)	CD188B CD188A CD188A	DP DP QP	16 16 16	3 3 4
TBA520 TBA520Q	COLOUR DEMODULATOR For colour TV receivers	2 active synchronous demodulators matrix (-0,51(R-Y) - 0,19(B-Y)) PAL phase switch and flip flop	CD138 CD138	DP QP	16 16	3 4
TBA530 TBA530Q	RGB MATRIX PRE-AMPLIFIER For colour TV receivers	Matrix RGB	CD139 CD139	DP QP	16 16	3 4
TBA540 TBA540Q	REFERENCE COMBINATION For colour TV receivers	Automatic phase and amplitude, controlled oscillator + half-line , frequency synchronous demodulator circuit	CD140 CD140	DP QP	16 16	2 2
TBA990 TBA990Q	COLOUR DEMODULATOR For TV receivers	2 synchronous demodulators, PAL phase switch + flip flop, matrix : (G-Y) = -0,51(R-Y) - 0,19(B-Y)	CD172 CD172	DP QP	16 16	3 4
TCA650	CHROMINANCE DEMODULATOR FOR SECAM OR PAL/SECAM DECODERS	synchronous demodulator, PAL matrix, PAL switch, SECAM switch, SECAM limiter	CD331	DP	16	
TCA800	COLOUR DEMODULATOR	colour demodulation with feed back, 2 synchronous demodulators (B-Y) (R-Y) , (G-Y) matrix, RGB matrix, PAL switch bistable	CD228	DP	16	
TDA2520 TDA2520Q	COLOUR DEMODULATOR COMBINATION For colour TV receivers	8,8 MHz oscillator (+divider giving 4,4 MHz), chrominance signal control stage, colour killer, demodulator (R-Y) (B-Y),PAL/switch/flip flop	CD240 CD240	DP QP	16 16	
TDA2521	COLOUR DEMODULATOR COMBINATION	As TDA2520/Q but with vertical blanking	CD334	DP	16	

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2522 TDA2522Q TDA2523 TDA2523Q	COLOUR DEMODULATOR COMBINATION For colour TV receivers	As TDA2520/Q but with single ACC output	CD241 CD241 CD241 CD241	DP QP DP DP	16 16 16 16	3 4 3 4
TDA2524	COLOUR DEMODULATOR COMBINATIONS for PAL colour television receivers.	Two synchronous demodulators for the (B-Y) and (R-Y) signals. 8,8 MHz oscillator (+ divider to give 4,4 MHz) Colour killer and identification signal detector. Acc detection. (G-Y) signal matrix. PAL flip-flop and PAL switch.	CD409	DP	16	3
TDA2530 TDA2530Q	RGB MATRIX with clamps. for colour television receivers. This circuit has been designed to be driven from the TDA2522 synchronous demodulator and oscillator IC.	Matrix preamplifier for RGB cathode drive of the picture tube with clamping circuit.	CD410	DP QP	16 16	3 4
TDA2532 TDA2532Q	RGB MATRIX PREAMPLIFIER. for use inconjunction with discrete video amplifiers to provide RGB drive to the cathode of a colour television tube. It has been designed to be driven by theTDA2522.	Matrix circuits. Gain control stages, operated by DC setting. Preamplifiers with feedback and integral black-level clamps; facilities for video blanking during data display.	CD411	DP QP	16 16	3 4

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

TV LINE CIRCUITS

GENERAL DATA
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBA720A TBA720AQ	LINE OSCILLATOR CIRCUIT	Miller integrator, oscillator followed by a pulse shaping circuit	CD166 CD166	DP QP	16 16	3 4
TBA920 TBA920Q TBA920S	HORIZONTAL COMBINATION Used in télévision receivers		CD171A CD171A CD171A	DP QP DP	16 16 16	3 4 3
TDA1180F TDA1180P	TV HORIZONTAL PROCESSORS for B/W and colour television receivers. TDA1180F is especially suited for France standard and Bi-standard applications.	Noise gated horizontal sync separator. Noise gated vertical sync separator. Phase comparator between : - syn pulses and oscillator pulses (PLL) - flyback pulses and oscillator pulses (PLL) Protection circuits. Output stages with high current capability.	CD412	DP DP	16 16	6A 6A
TDA1950 TDA1950F	LINE CIRCUITS FOR TELEVISION RECEIVERS. comprising all stages for sync separation and line synchronization in TV receivers. TDA1950 is intended to be used in CCIR standard applications, and the TDA1950F, in French standard applications.	Voltage controlled oscillator. Two phase comparators. Noise gating. Coincidence detector.	CD413	DP DP	18 18	1A 1A
TDA2140	PAL SUBCARRIER REFERENCE OSCILLATOR. for generating and processing the subcarrier reference signals in the decoder circuit of PAL colour TV receivers.	High noise immunity in ACC and APC circuits and in identification circuit. No adjustments of ACC. Hysteresis in colour killer circuit. Colour killer.	CD414	DP	16	6A
TDA2591/S TDA2591Q	HORIZONTAL COMBINATION Intended for use in colour television receivers in combination with TDA2500, TDA2510 and TDA2520. (see page)	Line oscillator. Phase comparators. Sync separator. Noise separator.	CD415 CD415	DP QP	16 16	3 4
TDA2592	Similar to TDA2591 but with separate H and V sync separator.	Phase shifter for the output pulse. Low supply voltage protection.	CD415	DP	16	3

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2593 TDA2594	SYNCHRO AND HORIZONTAL DEFLECTION CONTROL for colour TV sets, supplied with transistors or SCR's. (TDA2594 with TV transmitting identification).	Line oscillator Phase comparators. Coincidence detector. Noise gated synchro separator. Frame pulse separator. Horizontal power stage lagging circuit. Low supply voltage protection.	CD415 CD415	DP DP	16 18	3 4
TDA9400 TDA9403 TDA9500 TDA9503 TDA9513	LINE FREQUENCY CIRCUITS, for pulse separation and line synchronization in TV receivers. The TDA9400 and 9403 shows a Darlington emitter follower output stage. The output stage of the TDA9500 and of the TDA9503 supplies signals qualified for driving transistor line output stages. The output stage of the TDA9513 is designed for driving Darlington line output stages.	Sync separator with internal noise suppression. Frame pulse integrator. Phase comparator. Line oscillator with frequency range limiter. High-gain phase control circuit.	CD286	DP DP DP DP DP	16 16 16 16 16	13A 13A 13A 13A 13A
TEA1034	LINE OSCILLATOR AND DARLINGTON CONTROL for B/W Television sets. (Similar to TBA920 but with reversed output).	Oscillator. Synchronization circuit with phase comparator. Synchro pulse separator. Noise gate. Time switching for VCR operation. High current output stage. Phase shifter and pulse shaper. Phase comparators.	CD171B	DP	16	11

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

TV SIGNAL PROCESSING CIRCUITS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBA311	TV SIGNAL PROCESSING CIRCUIT For B/W and color TV sets	Video preamplifier, gated AGC, noise inverter circuit, horizontal and vertical sync.pulse separator, blanking facility	CD205	DP QP	16 16	6 1
TBA550 TBA550Q	TELEVISION SIGNAL PROCESSING CIRCUIT		CD141 CD141	DP QP	16 16	1 2
TBA890 TBA890Q	TELEVISION SIGNAL PROCESSING CIRCUIT For monochrome and color television receivers	Video preamplifier, blanking, gated AGC detector, noise cancelling circuit, sync separator,	CD169 CD169	DP QP	16 16	3 4
TCA270 TCA270Q TCA270S TCA270SQ	TELEVISION SIGNAL PROCESSING CIRCUIT (TCA270S/SQ : version of the TCA270/Q for use in receivers conforming to the CCIR system B or G, allowing a modulation of the carrier to 10%)	Sync. demodulator, video amplifier, noise inverters, AGC detector (for NPN tuner and IF amplifiers), AFC demodulator	CD144 CD144 CD144 CD144	DP QP DP QP	16 16 16 16	2 2 2 2

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBA281	VOLTAGE REGULATOR	T* compensated reference amplifier, error amplifier power series pass transistor, current limit circuitry	CD159	CM	10	4
TBA435	VOLTAGE REGULATOR	High T* stability, internal overload and short circuit protection, low output impedance	CD207	CM	3	2
TBA625A TBA625B TBA625C	VOLTAGE REGULATOR For voltage supply for digital circuits, or industrial application		CD207 CD207 CD207	CM CM CM	3 3 3	2 2 2
TCA700Y	CAR VOLTAGE REGULATOR. specially designed for stabilized power supplies of car instrumentation in vehicles with 12V accumulators.	Automatic current limiter. Thermal overload protection.	CD416	SP	3	5
TDA1405 TDA1412 TDA1415 TDA1418 TDA1424	VOLTAGE REGULATORS (5, 12, 15, 18 and 24V respectively) for voltage regulation in consumer applications.	Output current internally limited. Short-circuit protection. Low output voltage dispersion. Low output impedance.	CD275 CD275 CD275 CD275 CD275	SP SP SP SP SP	3 3 3 3 3	1 1 1 1 1
TDB0117-CM TDB0117-KM TDB0117T(SP) TDC0117-CM TDC0117-KM TDE0117-CM TDE0117-KM	THREE TERMINAL ADJUSTABLE POSITIVE VOLTAGE REGULATORS Intended to supply in excess of 1,5 A over a 1,2V to 37 V output range.	Full overload protection. (current limiting, thermal overload protection and safe area protection)	CD417 CD417 CD417 CD417 CD417 CD417 CD417	CM KM SP CM KM CM KM	3 2 3 3 2 2 3	2 1 3 2 1 2 1
TDB0123-KM TDC0123-KM TDE0123-KM	3A-5V VOLTAGE REGULATORS. used to provide the high output current without sacrificing the regulation characteristics of lower current devices.	Internal current and thermal limiting.	CD418 CD418 CD418	KM KM KM	2 2 2	2 2 2

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

VOLTAGE REGULATORS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDB0723 TDB0723A TDC0723	PRECISION VOLTAGE REGULATOR For use with positive or negative supplies as a series, shunt, switching or floating regulator	low temperature drift, low standby current drain, high ripple rejection	CD245 CD245 CD245	CM DP CM	10 14 10	1 1 1
TDB1146-DP TDB1146-CM TDC1146-CM	PRECISION HIGH VOLTAGE REGULATORS	Input voltage up to 80 V Output voltage adjustable from 2 to 77 V Positive or negative supply operation. Adjustable current limiting. Thermal protection. Output current to 150 mA without external pass transistor.	CD419 CD419 CD419	DP CM CM	14 13 13	4 3 3
TDD1605S TDD1606S TDD1608S TDD1610S TDD1612S TDD1615S TDD1618S TDD1624S	VOLTAGE REGULATORS FOR OUTPUT VOLTAGES. in the range from 5 V to 24V.	Internal current limiting Thermal shutdown. Safe area compensation.	CD291 CD291 CD291 CD291 CD291 CD291 CD291 CD291	SP SP SP SP SP SP SP SP	3 3 3 3 3 3 3 3	5 5 5 5 5 5 5 5
TDB2900-EP	ADJUSTABLE VOLTAGE REGULATOR	negative voltage regulator	CD320	EP	4	
TDB2905-KM TDB2905-SP TDB2905A-KM TDB2905A-SP TDC2905-KM TDC2905A-KM TDB2912-KM TDB2912-SP TDC2912-KM TDB2915-KM TDB2915-SP TDC2915-KM	THREE TERMINAL NEGATIVE VOLTAGE REGULATORS Used in logic systems, instrumentation, Hi-Fi and other solid state electronic equipment	internal current limiting. safe area protection for the output transistor is provide to limit internal power dissipation	CD295 CD295 CD295 CD295 CD295 CD295 CD295 CD295 CD295 CD295 CD295 CD295	KM SP KM SP KM KM KM SP KM KM KM SP KM	2 3 2 3 2 2 2 2 2 2 2 3 2	2 2 2 2 2 2 2 2 2 2 2 2 2

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDB7805	THREE TERMINAL POSITIVE PRECISION VOLTAGE REGULATOR	internal current limiting thermal shut down safe aera compensation	CD246	KM	2	1
TDB7805T			CD246	SP	3	3
TDB7806			CD246	KM	2	1
TDB7806T			CD246	SP	3	3
TDB7808			CD246	KM	2	1
TDB7808T			CD246	SP	3	3
TDB7812			CD246	KM	2	1
TDB7812T			CD246	SP	3	3
TDB7815			CD246	KM	2	1
TDB7815T			CD246	SP	3	3
TDB7818			CD246	KM	2	1
TDB7818T			CD246	SP	3	3
TDB7824			CD246	KM	2	1
TDB7824T			CD246	SP	3	3
TDC7805			CD246	KM	2	1
TDC7806			CD246	SP	3	3
TDC7808			CD246	KM	2	1
TDC7812			CD246	KM	2	1
TDC7815			CD246	KM	2	1
TDC7818			CD246	KM	2	1
TDC7824			CD246	KM	2	1

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

VOLTAGE STABILIZERS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAA550 TAA550A TAA550B TAA550C TAA550K	VOLTAGE STABILIZER For use as voltage supplier for varicap diodes in TV tuners	(RED, YELLOW, GREEN) V S range : 30 - 32 V (A) RED V S range : 32 - 34 V (B) YELLOW V S range : 34 - 36 V (C) GREEN Package CM2/1 + heat conducting block	CD160 CD160 CD160 CD160	CM CM CM CM	2 2 2 2	1 1 1 1
TDA1057	VOLTAGE REGULATOR	Temperature fixed voltage regulator		CP	2	1

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDB0111-CM TDB0111-KP TDC0111-CM TDE0111-CM	FET INPUT VOLTAGE COMPARATORS designed to operate over a ± 5 V to ± 15 V range and intended to be used in leakage testing, long time delay circuits, charge measurements and high source impedance voltage comparisons.	The extremely low input current allows the use of a simple comparator in application usually requiring input current buffering.	CD420 CD420 CD420 CD420	CM DP CM CM	8 8 8 8	1 1 1 1
TDB0119-CM TDB0119-DP TDB0119-FP TDC0119-CM TDC0119-DC TDE0119-CM TDE0119-DP	DUAL COMPARATORS Designed to operate over a wide range of supply voltages	precision high speed dual comparators fabricated on a single monolithic chip compatible with RTL, DTL, TTL	CD288 CD288 CD288 CD288 CD288 CD288 CD288	CM DP FP CM DC CM DP	10 14 14 10 14 10 14	3 4 2 3 3 3 4
TDB0139-DP TDB0139A-DP TDC0139-DP TDC0139-DG TDC0139A-DP TDE0139-DP	QUAD VOLTAGE COMPARATORS. specifically designed to operate from a single power supply over a wide range of voltages.	Very low supply current drain (0,8mA) Low input bias current, low input offset current Low input offset voltage. Low output saturation voltage. TTL compatible outputs.	CD421 CD421 CD421 CD421 CD421 CD421	DP DP FP DG DP DP	14 14 14 14 14 14	4 4 4 1 4 4
TDB0453A	PNP INPUT COMPARATOR. Intended to be used with the controller SDA5690 (see volume II) for storing and regaining the tuning voltage in radio sets.	Wide supply voltage range. High output current. Low supply current Low output saturation voltage.				DP 6 1
TDF2901 TDF3302	QUAD VOLTAGE COMPARATORS. specifically designed to operate from a single power supply over a wide range of voltages.	Very low supply current drain (0,8mA) Low input bias current, low input offset current Low input offset voltage. Low output saturation voltage. TTL compatible outputs.	CD421 CD421	DP DP	14 14	4 4
TEB1028	DUAL VOLTAGE COMPARATOR. designed for level sensing in -48 V system and especially for loop sensing, ring tripping and similar applications.	The circuit should be used together with an external resistor network. Input voltage within the range of $V_{CC2} +2V$ to $-2V$. The collector resistor of the output transistor is provided with a tap so that three different resistance values 2,2 k Ω , 7,8 k Ω , 10 k Ω can be obtained.	CD422	DP	14	4

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TRANSISTOR ARRAYS

GENERAL DATA
GENERALITES
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TCA671	TRANSISTOR ARRAY WITH 5 NPN TRANSISTORS		CD124	DP	14	1
TCA871	TRANSISTOR ARRAY WITH 5 NPN TRANSISTORS		CD124	DP	14	1
TCA971	TRANSISTOR ARRAY WITH 5 NPN TRANSISTORS		CD124	DP	14	1
TCA991 TCA991K	TRANSISTOR ARRAY WITH 5 NPN TRANSISTORS		CD124 CD124	DP	14 14	1
TDA1410AH TDA1410AV TDA1420AH TDA1420AV TDA1420LH TDA1420LV	MONOLITHIC QUASI-COMPLEMENTARY DUAL DARLINGTON IC. Intended for : booster for operational amplifier, DC motor driver, stepping motor driver, output stage for AC power amplifier (12W), and for vertical deflection systems in colour TV.	It consists in a pair of quasi-complementary (NPN-PNP) darlington with the associated biasing system.	CD290 CD290 CD290 CD290 CD290 CD290	SP SP SP SP SP SP	5 5 5 5 5 5	1 2 1 2 1 2
TDA3081 TDA3082	SEVEN-TRANSISTORS ARRAYS consisting of seven separate NPN transistors on a common substrate and particularly suitable for driving light-emitting diodes and seven-segment displays.	The transistors are capable of driving loads up to 100 mA. In the TDA3081 the transistors are connected in common emitter configuration whilst in the TDA3082 the collectors are common.	CD423A CD423B	DP DP	16 16	3 3
TDA3083/D	GENERAL PURPOSE HIGH-CURRENT. NPN TRANSISTOR ARRAY. for use as - Signal processing and switching systems - Lamp and relay driver. - Differential amplifier. - Temperature-compensated amplifier. - Thyristor firing.	Versatile array of five high-current (to 100 mA) NPN transistors. In addition, two of three transistors are matched at low current (1mA) for applications in which offset parameters are of special importance.	CD424	DP DP	16 16	

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA3310	LOW NOISE NPN TRANSISTOR ARRAY. designed for low noise and high hFE. Applications are : HiFi preamplifier. IR receivers for TV remote control. Dictaphones. CB system applications. Professional audio systems and active filters.	Assembly of 5 NPN transistors. The collector of each transistor of the TDA3310 is insulated from the substrate by an integrated diode.	CD425	DP	14	6
TEB1411DP TEB1411DG TEB1412DP TEB1412DG TEB1413DP TEB1413DG TEB1416DP TEB1416DG	HIGH VOLTAGE AND HIGH CURRENT SEVEN DARLINGTON TRANSISTOR ARRAYS. suited for driving lamps, relays, or printer hammers in a variety of industrial and consumer applications.	Seven NPN Darlington transistors. High break down voltage and internal suppression diodes insuring freedom from problems associated with inductive loads. Peak in rush currents to 600 mA (incandescent lamps) TEB1411 general purpose array. TEB1412 for use with 14 to 25 Volt P MOS Logic TEB1413 for systems utilizing 5V TTL or C-MOS Logic TEB1416 for use with 8-18 Volt MOS systems.	CD426A CD426A CD426B CD426B CD426C CD426C CD426D CD426D	DP DG DP DG DP DG DP DG	16 16 16 16 16 16 16 16	11 6 11 6 11 6 11 6

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

MOTOR SPEED REGULATORS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TCA900 TCA910	MOTOR SPEED REGULATORS. designed for use as speed regulator for DC motor of records players, cassettes recorders and players.	TCA900 for battery operated portable equipments. TCA910 for car-battery and mains operations.	CD427 CD427	SP SP	3 3	1 1
TCA955	MOTOR SPEED REGULATOR For speed regulation of DC motors	High regulation accuracy large supply voltage range	CD255	DP	16	1
TDA1003A	MOTOR REGULATOR AND BIAS/ERASE OSCILLATOR CIRCUIT. for use in recording/playback systems.	Capstan motor speed control. Automatic stop circuit. Bias/erase oscillator.	CD428	DP	16	16
TDA1006A	MOTOR REGULATOR WITH AUTOMATIC TAPE-END INDICATOR. for use in car radio tape-decks.	Capstan motor speed control. Electronic motor stop in conjunction with hysteresis slip-coupling or commutator pulse. Automatic switch from play-back to radio at tape-end. Play-back indication with lamp. Tape-end indication with intermittent light.	CD429	DP	16	16
TDA1041	SPEED REGULATOR FOR DC MOTORS For use in phonographs and tape recorders	-High stability of reference voltage -Low saturation voltage -High starting current		EP	10	3
TDA1059B TDA1059C	PROTECTED SPEED REGULATOR FOR DC MOTORS For DC motors of records players, tape recorders	internal protection	CD329 CD329	SP SP	3 3	3 3
TDA1085A	UNIVERSAL MOTOR SPEED CONTROLLER. having all the necessary functions for the speed control of universal (AC series) motors in an open or closed loop configuration.	Guaranteed full wave triac drive. Soft start from power-up. On-chip frequency/voltage convertor and ramp generator. Current limiting incorporated. Direct drive from AC line.	CD430	DP	16	
TDA1151 TDA1151-SP2	MOTOR SPEED REGULATOR. intended for use as speed regulator for DC motors of record players, tape and cassette recorders, movie cameras, toys, etc...	High output current (up to 800 mA) Low quiescent current (1,7 mA) Low reference voltage (1,2 V)	CD431A CD431B	SP SP	3 3	3 3

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA7270S	MULTIFUNCTION SYSTEM FOR TAPE PLAYERS especially designed for use in car radios cassette players, but suitable for all applications requiring tape play-back.	Motor speed regulator. Automatic stop. Manual stop. Pause. Cassette ejection. Radio-playback automatic switching. Thermal protection. Short circuit protection to ground (all the pins).	CD432	DP	16	6B
TDA7770	MULTIFUNCTION SYSTEM FOR TAPE RECORDERS intended for use in recording and playback systems	Motor speed regulator. Automatic stop with indicator-lamp. DC manual stop (pause) Biasing and erasing oscillator. Automatic level control of oscillator signal. DC record-playback switching.	CD433	RP	12	14
TDE1081	SPEED REGULATOR WITH AUTOMATIC STOP intended for use in car radio tape decks.	DC Motor speed regulator. Overload protection (current limiting) Automatic stop. Automatic switch from play back to radio at tape end. Play-back indication with LED. Tape-end indication with intermittent light pre-amplifier AF. Voltage regulator (for preamplifier and RF stages)	CD434	DP	16	3

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

MISCELLANEOUS

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAA320	MOST AMPLIFIER. For AF amplifiers with very high input impedance.	MOS and NPN transistors.	CD127	CM	3	1
TAA320A	MOST LEVEL SENSOR. For level sensor with very high input impedance.	P-channel enhancement type MOS and NPN transistors.	CD127	CM	3	1
TAA560	LEVEL DETECTOR. For battery fed timing circuits (camera shutter control).		CD152	CM	4	1
TAA691	WIDE-BAND AMPLIFIER, FM DETECTOR. AUDIO PREAMPLIFIER. For TV sound section.	multistage wide-band IF amplifier/limiter FM detector Zener diode regulated power supply section. Audio amplifier section.	CD202	QP	14	5
TAA721 TAA722	DIFFERENTIAL BROADBAND AMPLIFIER.		CD116 CD116	CM CM	8 8	2 2
TAA775G	POWER OSCILLATOR, suited as electronic pulse generator for direction blinker and emergency blinker in cars with 12V DC supply. Also suited for other applications, e.g. for internal wind-screen wipers.	Oscillator, the frequency of which is determined by an external RC network and which supplies rectangular output pulses. The output terminal 10 is connected to the collector of the output transistor operating in common emitter configuration. An integrated diode between the collector of the output transistor and the supply voltage terminal 1 allows for operation with inductive loads.	CD435	DP	10	1
TAA960	TRIPLE AMPLIFIER FOR ACTIVE FILTERS. For use in an active RC band-pass filter with Q up to 60.	3 identical general purpose amplifiers.	CD155	CM	10	2
TAA970	MICROPHONE AMPLIFIER. For use in telephone systems.		CD156	CM	10	2

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TAB101	RING(DE)MODULATOR. For telephony and industrial equipment.	4-transistor modulator and demodulator circuit.	CD157	CM	10	2
TAB1031K	PREAMPLIFIER FOR HEARING AIDS. Designed for use in postages of hearing aids. - Battery amplifiers. - Miniature dictating machines. - Microphone amplifiers.	Amplification between 30 and 86 dB (practically open loop amplification) may be set by external feed back. Good noise properties as well as a high control range of the output stage even at supply voltages around 1 V are obtained with single-ended circuiting.	—	U	14	1
TAB1041K TAB1041W	PUSH-PULL AMPLIFIER FOR USE IN HEARING AIDS. Dictating machines. Telephone amplifiers. Battery operated amplifiers.	High peak currents at low quiescent currents are possible. The amplifier even operates at very low supply voltages so that optimum utilization of the battery is ensured.	—	U FP	8 8	1 4
TBA331	GENERAL PURPOSE CIRCUIT. For low noise general purpose, low power systems in the DC through VHF range.	5 silicon NPN transistors.	CD206	DP	14	7
TBA400 TBA400D	GAIN-CONTROLLED BROADBAND AMPLIFIER WITH SYMETRICAL INPUT AND OUTPUT. For video IF amplifier in TV sets.		CD111 CD111	CM DP	10 14	1 1
TBA450N	STEREO DECODER.		CD113	DP	16	1
TBA470A B	GATE FOR ELECTRONIC ORGANS. Monolithic IC in bipolar technique designed primarily for use in electronic organs.	The device incorporates ten transistors, each replacing a mechanical key-contact. Each of the ten emitters may be driven by a tone signal. The sum of all signals will be derived from the common collector (terminal 14) or if the signals are supplied into the base terminals, via an integrated diode from terminal 1. Any undesired peaks caused by blocked transistors are suppressed by this diode and an external capacitor.	CD436 CD436	DP QP	14 14	9 8
TBA673	RING MODULATOR/DEMULATOR.	4-transistor modulator/demodulator circuit.	CD142	CM	10	1
TBA940 TBA950 TBA950F	CONTROLLED PULSE GENERATOR. Used in TV receivers.	The TBA940F has another output pulse duration (20 μs ± 150 μs) according to french TV standard.	CD130 CD130 CD130	DP DP DP	14 14 14	1 1 1

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TBA2110	FSK DEMODULATOR designed for frequency detection in PCM Remote Control Systems for TV application.	This monolithic silicon IC contains an I.R.-amplifier, multiplier and VCO forming a phase locked loop system. Limiting with 20 μ V signal. Wide range of supply voltages (10 to 20 V). No adjustment.	CD437	DP	14	5
TCA105 TCA105B TCA105BW TCA105W	THRESHOLD SWITCHES. Proximity switches, light beam and other contactless switching applications.	Oscillator stage. threshold switches. 2 anti-valent output stages. voltage stabilization.	CD119 CD119 CD119 CD119	DP DP FC FC	6 6 6 6	1 1 1 1
TCA205A TCA205W	THRESHOLD SWITCH. Used in proximity switches and contactless switching applications.	It contains an oscillator stage, a comparator and 2 anti-valent outputs. The IC is voltage stabilized. (adjustable hysteresis, turn-on delay, adjustable distance)	CD438 CD438	DP FP	14 8	1 4
TCA205K	PROXIMITY SWITCH. Can be used for applications in proximity and slot switches.	Large supply voltage range due to internal voltage stabilization. High output current. Anti-valent outputs. Adjustable distance. Adjustable hysteresis. Turn-on delay.	CD438	P	16	1
TCA210 TCA210D TCA210T	AF AMPLIFIER AND PREAMPLIFIER. For use in intercoms and other audio systems.	High gain preamplifier (class-A). power amplifier (class-B).	CD174 CD174 CD174	DP GP FP	16 14 14	
TCA240 TCA240D	DOUBLE BALANCED MODULATOR/DEMODULATOR. For general purpose applications : mixer, chopper, differential amplifier, etc.					
TCA280A	TRIGGER MODULE. For thyristor and triac control.	DC power supply, zero crossing detector, difference amplifier, ramp function generator, output amplifier.	CD264	DP	16	
TCA290A	FM STEREO DECODER. Provides automatic mono/stereo switching.		CD191	DP	16	
TCA345A	THRESHOLD SWITCH.		CD123	DP	4	

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TCA350Z	DELAY LINE FOR ANALOGUE SIGNALS. For new design the TCA350Y should be preferred Used for the delay of analogue signals in the frequency range up to 250kHz.	It is designed according to principle of the bucket circuit and comprises 185 series- connected FET and 185 integrated capacitors.	CD132	DP	8	10
TCA440	AM RECEIVER CIRCUIT.	HF preamplifier, mixer, separed IF amplifier.	CD185	DP	16	1
TCA450A	HALL ELEMENT WITH DIFFERENTIAL AMPLIFIER.	Fiel magnetic detector using Hall effect.	CD266	GP	14	1
TCA511	TV HORIZONTAL AND VERTICAL PROCESSOR. For driving TV horizontal and vertical output stages.	High stability horizontal oscillator. High stability vertical oscillator. Horizontal AFC circuit. Sawtooth generator.	CD216	DP	16	7
TCA530	VOLTAGE STABILIZER. Use with varicap tuning diodes.		CD267	DP	16	3
TCA580	GYRATOR CIRCUIT with floating inputs intended mainly to replace the coils in telephony low pass filters.	The stimulated inductance consists of the IC, two resistors and a capacitor with this configuration inductances of up to 1 MHz $\pm 2\%$ can be achieved.	CD439	DP	16	15
TCA720	DC CONVERTER. designed for generating stabilized and temperature independent tuning voltage in diode- tuned and battery-powered radio receivers the tuning voltage of which is higher than the battery voltage.	Blocking oscillator and temperatures compensated voltage regulator circuit. The operating frequency of the blocking oscillator is determined by the coil inductance and the supply voltage. The supply voltage may vary from 4,5 to 18 V.		GP	4	1
TCA730 TCA730A	DC VOLUME AND BALANCE CONTROL CIRCUIT. For controlling volume and balance in stereo amplifiers by means of a DC voltage.		CD252A CD252B	DP DP	16 16	3 3
TCA740 TCA740A	DC TREBLE AND BASS STEREO CONTROL CIRCUIT. For controlling bass and treble in stereo amplifiers by means of a DC voltage.		CD253A CD253B	DP DP	16 16	3 3

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TCA750 TCA750Q	MULTISTABILIZER FOR ELECTRONIC TUNING. For use in electronic tuning systems.	Circuit combined with an external reference diode, 3 output voltage.	CD268 CD268	DP QP	16 16	3 4
TCA780	PHASE CONTROL. intended to control thyristors, triacs and transistors. Typical application includes converter circuits, servo systems and threephase operation. (3ICs).	Trigger pulses can be shifted within the phase angle of 0° and 180°cl. Output current is 50 mA.				
TCA820	DOUBLE BALANCED MODULATOR/DEMULATOR. For frequency up to 650 MHz.	Modulator, mixer, chopper, AM synchronous demodulator, FM quadrature demodulator, phase comparator, differential amplifier.	CD263B	GP	14	1
TCA965	WINDOW DISCRIMINATOR. For control systems as follow up and adjusting control deviced with dead space.		CD271	DP	16	1
TCA980 TCA980G	MICROPHONE AMPLIFIER. For use with low impedance microphones in telephone systems.		CD272 CD272	CM SP	4 9	2 2
TCA4511	STEREO DECODER.		CD441	DP	18	3
TCA5500	STEREO SOUND CONTROL SYSTEM. Single chip stereo balance, volume, bass and treble control circuit designed for use in car radios, TV and audio systems.	Simple DC inputs allow the control to be effected by four inexpensive potentiometers or a remote control system. The bass and treble responses are defined by a single capacitor per control per channel. Four high impedance DC controls (volume, bas, treble, balance) Low distorsion (0,1% at nom.input level) 12dB gain with the tone control flat. Channel separation > 45 dB. Wide power supply tolerance 8 to 18 VDC. ± 14 dB of tone control. Volume control > 75 dB. Low output impedance. Easily added loudness compensation.				

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA0820 TDA0820T	DOUBLE BALANCED MODULATOR/DEMULATOR. for use at $f \leq 650$ MHz. Modulator. Mixer. Switch/chopper. AM Synchronous demodulator. FM quadrature demodulator. Phase comparator. Differential amplifier.	The circuit is arranged to offer very flexible circuit design possibilities. The excellent matching and T* tracking of the transistors in the circuit allow the use of circuit technique which are not available when using discrete devices.	CD263B CD263B	QP FP	14 14	1 2
TDA1001A TDA1001AT	INTERFERENCE ABSORPTION CIRCUIT. for very effectively suppressing interference which especially in FM Mono and Stereo receivers disturbs the quality of reception.	The operation is based on the use of a high-pass filter separating the interference from the A.F. signal. The interference pulses are amplified to trigger a one shot. In this way, gating pulses are obtained interrupting the audio signal, which is delayed by a low-pass, filter during the interference period, the output being kept constant for that time.	CD443 CD443	DP FP	16 16	3 2
TDA1005 TDA1005A TDA1005AT	PHASED-LOCKED LOOP STEREO DECODER. For time or frequency multiplex decoding in FM FREQUENCY MULTIPLEX PLL STEREO DECODER.	Automatic mono/stereo switch. Mono-override switch. High quality PLL stereo decoder based on the frequency-division multiplex (f.d.m) principle, performing : - excellent ACI (Adjacent Channel Interference) and SCA (Storecast) rejection. - very low BFC (Beat-Frequency Components) distortion in the higher frequency region.	CD254 CD444 CD444	DP DP FP	16 16 16	3 3 2
TDA1008	GATING/FREQUENCY DIVIDER FOR ELECTRONIC MUSICAL INSTRUMENTS. In electronic organs using a top octave synthesizer directly coupled to twelve TDA1008 circuits only one busbar per manual is needed to obtain five octave-related tones per key.	Monolithic bipolar integrated circuit based on I ² L (Integrated Injection Logic) with frequency dividers directly coupled to the gating system. The outputs of the dividers, together with the input signal, are applied internally to nine gate inputs. By activating a key input, five successive signals out of the nine are selected and transferred to the outputs.	CD445	DP	16	3

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1023	TRIAC TRIGGERING CIRCUIT ESPECIALLY SUITABLE FOR THE CONTROL OF PANEL HEATERS.	Monolithic integrated circuit delivering positive gate-pulses for controlling triacs in the time proportional or burst firing mode. Special features : - fail-safe operation. - buffered inputs. - translation circuit. - adjustable hysteresis. - stabilized supply voltage.	CD446	DP	16	3
TDA1024	A MAINS-ZERO TRIAC-TRIGGERING CIRCUIT. for use in ON/OFF control of triacs in static switching applications in, for example : - central heating installations. - washing machine heaters, - water heaters. - smoothing irons.	Monolithic IC incorporating zero voltage point triggering to minimize radio interference.	CD447	DP	8	5
TDA1044	VERTICAL DEFLECTION CIRCUIT. For vertical deflection 110° black and white and colour TV receivers.	Line oscillator, output amplifier.	CD273	RF	12	
TDA1055	STEREO DECODER.	AFC, mono/stereo switch.	CD255	DP	18	
TDA1060 TDA1060B	CONTROL CIRCUIT FOR SWITCHED-MODE POWER SUPPLIES. It incorporates all the control and protection functions likely to be required in switched-mode power supplies for professional equipment.	Circuits features : Stabilized power supply. Temperature compensated voltage reference. Sawtooth generator. Pulse width modulator. Remote ON/OFF switching. Current limiting. Low supply voltage protection. Loop fault protection. Output stage. Demagnetization/over-voltage protection. Maximum duty factor adjustment. External synchronization input. Feed-forward.	CD448 CD448	DP DG	16 16	

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1061	ATTENUATOR TWO PART. For AGC input signal in television tuners and antenna amplifiers.	Silicon Planar PIN diodes as a π circuit.	CD298	GP	4	3
TDA1062	FM-TUNER. For AC-line and car-radios, mixer, modulator and phase-sensitive detectors up to 200MHz.	Monolithic IC.	CD324	DP	16	5
TDA1068	NOISE INVERTER WITHIN THE AUDIO FREQUENCY UNIT FROM CAR RADIOS.	(1) input impedance transformer 50k/1k Ω . (2) differential amplifier for the identification of neg. or pos. noise pulse. (3) control of the gate-transistor by mono-flop (4) signal-amplifier and driver for electronic switch BF255. (5-6) output coupled amplifier and impedance transformer 500k/2k Ω . (7) control circuit for the adaptation of input-bias-voltage to the DC-output-level of stage (4). (8) control circuit for the sensitivity of noise identification.	CD325	DP	16	5
TDA1069	L.E.D. DRIVER It is designed to TV indication in stereo equipment. Level indication in tape recorder.	This circuit can drive 6 LED's at 3 or 20 mA.		DP	16	
TDA1072	AM RECEIVER CIRCUIT. Controlled HF amplifier. Multiplicative balanced mixer. Seperate oscillator with amplitude control. IF-amplifier with gain control. Balanced full-wave detector. AF preamplifier. Internal AGC-voltage. Amplifier for field-strength indication.		CD449	DP	16	3
TDA1073	DC CONTROLLED ELECTRONIC POTENTIOMETER.	High-ohmic inputs. Internal amplifier. Electronic supply voltage filter. Internal reference voltage. Feed back output stages with short circuit protected current limitation.		DP	18	4

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1074	DUAL ELECTRONIC DOUBLE POTENTIOMETER CIRCUIT. Designed for use as adjustment circuit in stereo amplifiers.	Internal amplifier. Two high-ohmic inputs for each adjuster. Electronic supply voltage filter. Feed back output stages with short-circuit protected current limitation.	CD450	DP	18	2
TDA1077D TDA1077P	TWO-TONE GENERATOR FOR TELEPHONE DIALLING. Supplying frequency combination (in accordance with CICC recommendations) for use in push-bottom telephones.	Stabilized working voltage. Frequency synthesizer. Adjustable output level. Output stage included. Two key roll-over provided.		DG DP	16 16	5 3
TDA1082	DRIVER FOR EAST-WEST CORRECTION SYSTEM.	Differential amplifier inputs. Protection circuit with cutt-off voltage. Internal stabilized voltage.	CD451	DP	16	3
TDA1093A TDA1093B	GENERATION OF TUNING VOLTAGE FOR FM-RECEIVERS. with iteration free adjustment of tuning circuits. TDA1093A : external generation of a temperature dependent control voltage for thermal (TK)compensation of the tuned circuits. TDA1093B : external generation of a temperature dependent control voltage for thermal (TK)compensation of the tuner.	Regulation of the tuning voltage against supply voltages variations. Adjustable/programmable tuning voltage. Adjustable/programmable thermal compensation of the tuned circuits. Programmable AFC. Buffer stage for tuning voltage source. Transistor stage for FM-IF amplification or other functions.	CD452 CD452	DP DP	16 16	1 1
TDA1096	DUAL 256-STAGE BUCKET BRIGADE ANALOGUE DELAY LINE. It can be used with clock frequencies in the range from 5 kHz to 500 kHz. Applications : Variable or fixed delay of analogue signals. Reverberation effects in stereo equipments. Voice control of tape recorders. Time scale conversion. Speech scrambling system. In electronic organs and other musical instruments for tremolo, vibrato, chorus and violin effects, and musical instruments multiplexer.	It can be used in four different operation modes : Independent, as a 256 storage element delay line. Connected in series, to provide a 512 element delay line. Connected in parallel (multiplex mode) to provide a double sampling rate or double delay. Connected in differential mode, to provide effective cancellation of even harmonics and D.C. output components and/or DC output shift by clock frequency sweeping.	CD453	DP	16	3

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1097	1536-STAGE BUCKET-BRIGADE ANALOGUE DELAY LINE. can be used in : - Reverberation effects. - Quasi stereo. - Variable or fixed delay of analogue signals : voice switching of tape recorders, equalizing speech delay in public address systems, ... - In communication systems for speech scrambling time scale conversion, multiplex, systems for telephony. - Variable compression and expansion of speech in tape recorders. - In electronic organs and other musical instru- ments for tremolo vibrato effects and musical instruments multiplexer.	Monolithic shift register in MOS technology (p-channel enhancement type transistor) and can be used with clock frequencies in the range from 5 kHz to 100 kHz.	CD454	DP	8	8
TDA1170 TDA1170S TDA1170SH	TV VERTICAL DEFLECTION SYSTEM Designed mainly for use in large and small screen B/W TV receivers	The functions incorporates : -voltage ramp generator -oscillator -high power gain amplifier -flyback generator	CD336 CD336 CD336	RP RP RP	12 12 12	5 1 2
TDA1195	AF-SWITCHES.	4 electronic switches coupled 2 by 2.	CD310	DP	18	3
TDA1270	TV VERTICAL DEFLECTION SYSTEMS. For driving complementary vertical deflection output stages in colour TV receivers.	Oscillator, Voltage ramp generator, High power gain amplifier.	CD274	RP	12	5
TDA1470 TDA1470A	COLOUR TV VERTICAL DEFLECTION SYSTEM. Intended for direct driving of colour TV yokes, it offers a wide application range also in B/W TVs, monitors and displays.	Monolithic IC incorporating : - Synchronization circuit. - Oscillator and ramp generator. - Power amplifier with high current capability. - Flyback generator. - Voltage regulator.	CD336A CD336A	DP RP	16 16	6 3

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA1533	PLL MOTOR SPEED CONTROL CIRCUIT FOR HI-FI APPLICATIONS. - Record players. - Cassette recorders. - Reel-to-reel.	Monolithic IC incorporating. - A quartz reference oscillator. - A synthesizer for adjustment of the phase detector reference frequency. - A programmable scaler for the several applications. - A digital memory phase detector. - A tacho-signal amplifier/limiter. - Two operational amplifier for the external integration and loop filtering of the phase detector output.	CD455	DP	8	4
TDA1540	14-BIT DAC WITH 85 dB S/N RATIO.	Monolithic Integrated 14-bit digital to analogue converter (DAC) incorporating a 14-bit input shift register with output latches, binary weighted current sources with switched and a reference source. The IC features an improved switch circuitry which eliminates the need for a deglitcher circuit at the output. This results in a signal-to noise ratio of typical 85 dB in the audio band.	CD456	DC	28	2
TDA1550	FIXED VOLTAGE REGULATOR, designed to supply control voltage for variacaps in UHF and VHF TV timers.	Monolithic integrated temperature compensated regulator consisting in a dipole which is used in the same way as a zener diode.	CD457	CG	2	1
TDA1580	ANALOGUE AUTOMATIC TUNING IN RADIO AND TV APPLICATION.		CD458	DP	18	4
TDA2000	STEREO EQUALIZING AMPLIFIER SIGNAL SOURCE SWITCH AND AF CONTROL.		CD459	DP	18	1
TDA2160	SYNCHRONOUS DEMODULATOR AND RGB MATRIX FOR COLOUR TV RECEIVERS.	High stability of the DC output voltage ensured by applying heavy feedback from the output stages. Large bandwidth. Tight thermal coupling between the three channels. Low subcarrier leakage ensured by means of integrated active filters. Good electrical stability of the RGB amplifiers ensured by internal frequency compensations.	CD460	DP	16	5A

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2161	SYNCHRONOUS DEMODULATOR and RGB MATRIX for colour TV with on screen display facility used for RGB cathode driving of colour picture tubes and it is directly coupled to the video output stages.	High stability of DC output voltages ensured by applying heavy feedback from the output stages. Large bandwidth. Light thermal coupling between the three channels. Low subcarrier leakage due to integrated active filters. Large black level adjustment range. Large dynamic swing of the output signals. High electrical stability of RGB amplifiers assured by internal frequency compensations. Box blanking for characters display on screen.	CD461	DP	16	6A
TDA2571A TDA2571AQ	HORIZONTAL SYNCHRONIZATION AND VERTICAL 625 DIVIDER SYSTEM, designed in combination with the TDA2581 (page 128) as a matched pair for switched-mode driven horizontal deflection stage.	When supplied with a composite video signal it delivers drive pulses for the TDA2581 and sync. pulses for the vertical deflection. The circuit is optimized for a horizontal and vertical frequency ratio of 625.	CD462 CD462	DP QP	16 16	3 4
TDA2573A	HORIZONTAL OSCILLATOR COMBINATION with vertical 525 divider system intended to be used in various types of transistorized horizontal deflection circuits, e.g. switched-mode driven and power-pack system circuits.	Horizontal sync separator. Noise gate. Phase detectors. Horizontal oscillator (31,5 kHz) Burst key pulse generator. Vertical sync pulse separator.	CD463	DP	16	3
TDA2575A TDA2575AQ	HORIZONTAL SYNCHRONIZATION AND VERTICAL 525 DIVIDER SYSTEM designed in combination with the TDA2581 (see page 128) as a matched pair for switched-mode driven horizontal deflection stage.	When supplied with a composite video signal it delivers drive pulses for the TDA2581 and sync pulses for the vertical deflection. Horizontal sync separator. Noise gate. Horizontal phase detector. Horizontal oscillator (31,5 kHz) Burst key pulse generator. Vertical sync pulse separator. Automatic vertical synchronization.	CD462 CD462	OP QP	16 16	3 4
TDA2576 TDA2576A	HORIZONTAL OSCILLATOR COMBINATION WITH VERTICAL DIVIDER. intended to be used in various types of transistorized line deflection circuits, e.g. switched-mode driven and power-pack system circuits. TDA2576A optimized for a H and V frequency ratio of 625.	Horizontal sync separator. Noise gate. Phase detectors. Horizontal oscillator. Burst key pulse generator. Vertical sync. pulse separator.	CD464 CD463	DP DP	16 16	3 3

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2581 TDA2581Q	CONTROL CIRCUIT FOR SWITCHED-MODE POWER SUPPLIES. (SMPS) which are provided with the drive for the horizontal deflection stage.	Voltage controlled horizontal oscillator. Phase detector. Duty factor control. Adjustable maximum duty factor. Over-voltage and over-current protection.	CD465	DP QP	16 16	3 4
TDA2582 TDA2582Q	CONTROL CIRCUIT FOR POWER SUPPLIES which are provided with the drive for the horizontal deflection stage.	Voltage controlled horizontal oscillator. Phase detector. Duty factor control. Over-voltage and over-current protection Protection for open-reference voltage. Protection for too low supply voltage. Protection against loop faults. Normal and "smooth" remote ON/OFF possibility.	CD465 CD465	DP QP	16 16	3 4
TDA2585	THYRISTOR CONTROL FOR TELEVISION RECEIVER with internal reference voltage.	Sawtooth generator. Pulsewidth modulator. Current and voltage limiting. Low supply voltage protection. Output stages. External sync inputs.	CD466	DP	18	4
TDA2590	LINE OSCILLATOR COMBINATION. For colour TV receivers using thyristor or transistor line deflection output stages.	line oscillator based on the threshold switching principle, phase comparison between sync pulse and oscillator voltage, phase comparison between line flyback pulse and oscillator voltage, switch for changing the filter characteristic and the gate circuit (when used for V.C.R.), coincidence detector, sync separator, noise separator, colour burst keying and line flyback blanking pulse generator, output pulse duration switching, phase shifter for the output pulse, output stage for direct drive of thyristor deflection circuits.	CD280 CD280	DP QP	16 16	3 2
TDA2600 TDA2600Q	VERTICAL DEFLECTION CIRCUIT. For use in both 90° and 110° colour TV receivers.		CD281 CD281	EP RP	16 16	
TDA2640 TDA2640Q	SWITCHED-MODE POWER SUPPLY DRIVE CIRCUIT. For driving the switched-mode power supply of a colour or B/W Television Receiver.	DC controlled switch-on circuit. over-current/voltage protection. DC controlled switch-off circuit. remote switch-off circuit.	CD285 CD285	DP QP	16 16	

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2651	VERTICAL DEFLECTION IN TV RECEIVERS for B/W and small screen sets.	Synchronization circuit. Sawtooth generator. Preamplifier. Blanking generator. Breakdown generator and internal stabilization.	CD467	RP	12	1
TDA2652	VERTICAL DEFLECTION CIRCUIT for television receivers with 110° deflection.	Synchronization circuit. Vertical oscillator. Blanking pulse generator, sawtooth generator. Preamplifier, driver and output stage. Short-circuit and thermal protection.	CD468	EP	16	1
TDA2653 TDA2653A	VERTICAL DEFLECTION CIRCUIT for vertical deflection in large screen colour television receivers.	Oscillator. Synchronization circuit. Blanking pulse generator. Frequency detector and storage. Sawtooth generator. Amplitude switch for 50 Hz/60 Hz. Buffer stage. Reference voltage unit. Preamplifier. Output stage. Flyback generator. Voltage stabilizer. Guard circuit. Output stage protections.	CD469	EP SP	16 13	1 1
TDA2654	VERTICAL DEFLECTION CIRCUIT for vertical deflection in monochrome and tiny-vision colour television receivers.	Oscillator. Synchronization circuit. Blanking pulse generator. Sawtooth generator. S-correction and linearity circuit. Comparator and drive circuit. Output stage. Flyback dissipation limiting circuit. Supply for pre-stages via internal voltage divider. Thermal protection circuit. Controlled switch-on	CD470	SP	9	1
TDA2655	VERTICAL DEFLECTION CIRCUIT.	Synchronization circuit. Vertical oscillator. Sawtooth generator. Preamplifier. Thermal protection circuit. Blanking generator. Breakdown generator. Voltage stabilizer.	CD471	EP	16	1

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				1	2	3
TDA2655A	VERTICAL DEFLECTION CIRCUIT similar to TDA2655 but for television receivers with 90° deflection.		CD472	RP	12	1
TDA2700	OSCILLATOR FOR VIDEO RECORDERS.	562,5kHz oscillator. Pulse separator. Noise separator. Phase detector. Pulse generator. Low-ohmic output stage.	CD473	DP	16	3
TDA2710	CHROMINANCE SIGNAL/MIXER FOR VIDEO RECORDERS.	Controlled chrominance amplifier. Control voltage amplifier. Mixer for the chrominance signal. Electronic recording/playback switch. Schmidt trigger for killing the chrominance signal. Colour killer output stage.	CD474	DP	16	3
TDA2720	COLOUR SUB-CARRIER OSCILLATOR. FOR VIDEO RECORDERS.	8,8 MHz colour sub-carrier oscillator with divider stage. Keyed phase comparison. A stage to obtain automatic chrominance control. A stage to obtain a colour killer signal and an identification signal. 2 mixer stages to obtain the 4,99 MHz sub-carrier frequency.	CD475	DP	16	3
TDA2721	OSCILLATOR AND MIXER FOR VIDEO RECORDERS.	8,8 MHz oscillator with divider stage. Keyed phase comparison. A stage to obtain a reference voltage and two stabilized voltages. Mixer.	CD476	DP	16	
TDA2730	FM LIMITER/DEMODULATOR for use in audio-visual equipment. e.g. : video-recorders and video disc players.	FM limiter/demodulator for the playback signal. Video amplifier. Electronic switch, which can be used for drop-out elimination.	CD477	DP	16	

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA2740	AMPLIFIER AND DROP-OUT DETECTOR for use in video-recorders.	Electronic switch. Regulated FM amplifier with indicator circuit. Drop-out detector and schmitt trigger.	CD478	DP	16	3
TDA2890	AF VOLUME AND TONE CONTROL CIRCUIT FOR TELEVISION RECEIVERS.		CD479	DP	18	4
TDA3030	SECAM ADAPTER. designed to expand the facilities offered by the TDA3300 (see hereafter). Colour Processor to give a fully multistandard TV colour processing system.	Expands the TDA3300 to SECAM On-chip NTSC hus control. Electronic, on-chip PAL-SECAM switching. Low power dissipation (400 mW typ) Single 12 V supply.	—	DP	28	1
TDA3300	TV COLOUR PROCESSING SYSTEM. which accepts a PAL or NTSC composite video signal and generates the three colour signals. Four inputs for on-screen display and the complementary fast blanking for use with teletext, viewdata, TV games, cameras...	Three DC, high impedance user controls. Automatic Black Level set-up. Beam current limiting. Inexpensive 4,43/3,58 MHz reference generation. Single 12 V supply. Low dissipation (600 mW typ).	CD480	DP	40	1
TDA3500	VIDEO CONTROL COMBINATION performing the control functions in a PAL/SECAM decoder which additionally comprises the TDA3510 (PAL decoder) and/or TDA3520 (SECAM decoder) Insertion possibility of linear RGB signals, e.g. video text, video games, picture-in-picture, camera or slide-scanner.	Capacitive coupling of the input signals linear saturation control. (G-Y) and RGB matrix. Equal black level for inserted and matrixed signals by clamping. 3 identical channels for the RGB signals Differential amplifiers. 3-dc-gain controls for RGB output signals (white point adjustment).	CD481	DP	28	3
TDA3501	VIDEO CONTROL COMBINATION.	Similar to TDA3500 but with 2 d.c. gain controls for the green and blue output signals (white point adjustment).	CD482	DP	28	3

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA3510	PAL DECODER.	Chrominance part : controlled chromin-ampli chromin-output stage. Blanking circuit. Reference voltage and control voltage part : 8,8 MHz reference oscillator Gate phase comparison. Circuit for obtaining the chromin-cont.voltage and a reference voltage. Circuit for generating the colour killer signal and the identificat-signal. Demodulator part : 2 synchro demodulators. PAL flip-flop and PAL switch Flyback blanking (R-Y) and (B-Y) signals output stages.	CD483	DP	24	1
TDA3520	SECAM DECODER. containing all the functions necessary for decoding the SECAM signal from the composite video. By adding the TDA3510, the SECAM system can be extended to receive SECAM/PAL signal as well. Only the clock filter has to be adjusted.	Gain controlled chrominance amplifier. Delay line amplifier (fixed gain nom.8) Liminter stages for direct signal and delayed signals. Permutator. Horizontal identification system. Internal clamping generator. (B-Y) and (R-Y) demodulators. Circuits for horizontal and vertical blanking. Low impedance output stages.	CD484	DP	28	3
TDA3650	VERTICAL DEFLECTION CIRCUIT for large screen colour television receivers.	Oscillator. Synchronization circuit. Blanking pulse generator. Sawtooth generator. S-correction and linearity control. Comparator and drive circuit. Output stage. Flyback generator. Voltage stabilizer. Thermal protection circuit. Guard circuit. Output stage protection.	CD485	EP	13	

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA3770	VIDEO PROCESSOR FOR VIDEO RECORDERS.	4dB input amplifier. Gain controlled amplifier. Synchro-pulse regulation. Adder stage for luminance and chrominance. A Emitter-follower output-stage for luminance signal. Two Emitter-follower output stages for the FBAS signal.	CD486	DP	18	4
TDA3780	FM MODULATOR FOR VIDEO RECORDERS.	Two-stage luminance amplifier. Adjustable white point.	CD487	DP	18	4
TDA4050	INFRARED PREAMPLIFIER.	Internal gain controlled supply. High stability. Short-circuit protection. Simple active band filter circuit.	CD488	DP	8	6
TDA4180 TDA4180P	FRONT END AMPLIFIER FOR REMOTE CONTROL SYSTEMS For i.e. : ultrasonic or infrared transmission.	Monolithic I.C. High sensitivity. High gain, externally adjustable. Band-pass externally influenced by RC ₃₋₅ , RC ₇₋₅ , and RC ₆₋₇ Overdrivable.	CD326 CD326	CM DP	8 8	2 1
TDA4290	DC CONTROL OF LOUDNESS, TUBLE AND BASS.	High S/N ratio. Low total harmonic distorsion.	CD380	DP	14	7
TDA4430	CONTROL CIRCUIT FOR AN AUTOMATIC TV-SEARCH TUNING AND AFC SYSTEM with digital tuning voltage generator and memory (EPM-system). Identification of TV-modulated stations.	Reaction only on TV stations. Tristate control signal for automatic search and AFC operation. Controls the tuning voltage generator by only one line . Automatic search and AFC. Thermal compensated voltage regulator for fine tuning circuit and threshold detector.	CD489	DP	8	6

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

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GENERAL DATA
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDA4431	CONTROL CIRCUIT FOR AN AUTOMATIC TV-SEARCH TUNING AND AFC SYSTEM with digital tuning voltage generator and memory (EPM-system). Identification of TV-modulated stations.	High sensitive analogue identification. Adjustable sensitivity. Tristate control output. Control output for search speed. Stabilized voltage output.	CD490	DP	14	6
TDA4432	TELEVISION TRANSMISSION IDENTIFICATION CIRCUIT for generating a stop signal for automatic tuning systems, automatic muting at reception of non TV signals.	Digital differentiation of transmitter signals with or without modulation. Suitable for positive or negative flyback pulse Digital control signal output.	CD491	DP	8	6
TDA4433	TV SIGNAL IDENTIFICATION CIRCUIT AND AFC INTERFACE.	Similar to TDA4431.	CD490	DP	14	6
TDA4600	CONTROL FOR SWITCHED-MODE POWER SUPPLIES. provided for all control, protecting and monitoring functions in switched-mode power supply unit.		CD492	DP	18	3
TDA4610	EAST-WEST CORRECTOR CIRCUIT.		CD493	SP	9	
TDA4620	AUTOMATIC CONTROL FOR HORIZONTAL DEFLECTION.			DP	22	
TDA4700 TDA4700A	INTEGRATED CONTROL COMPONENTS FOR SINGLE-ENDED AND PUSH-PULL SWITCHING POWER SUPPLY DEVICES.	Precontrol (mains hum suppression) Symmetry inputs for push-pull converter. Dynamic output current limitation. Overvoltage protection. Undervoltage protection. Soft start.	CD494 CD494	DC DP	24 24	

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TDB0555-CM -DP TDB0555A (=TDB0555B) TDC0555-CM	TIMER Suited for accurate time delays and as oscillator	High output current. TTL compatible. Temperature stability of 0,05 % per °C. Adjustable duty cycle. Few external components. Timing through nine decades.	CD287 CD287 CD287 CD287	CM DP DP CM	8 8 8 8	1 6 6 1
TDB0556A	DUAL TIMER.	The TDB0556A replaces 2 TDB0555 ICs.	CD287	DP	14	1
TDB1030	ANALOG VOLTAGE AND BAND SWITCH. For a selection of 8 programmes.			DP	24	
TDB1033	PREAMPLIFIER FOR ULTRASONIC/INFRARED REMOTE CONTROL TRANSMISSION.	Three differential amplifier stages. Built in synchro demodulator with limiter and AGC amplifier. Comparator for improving the noise performance with adjustable threshold.	CD522	DP	16	3
TDE1607-CM	RELAY AND LAMP-DRIVER designed for high current and high voltage applications specifically to drive lamps, relays, stepping motors.	Blow-out protection. Thermal protection. Supply voltage range from +10V to +30V. High output current. Adjustable short circuit protection.	CD294	CM	6	1
TDE1627-CM TDE1627-DP	RELAY AND LAMP-DRIVERS designed for high current and high voltage applications.	High output current. Adjustable short-circuit protection. Internal thermal protection with external reset. Large supply voltage range :+10 to +30V.	CD497 CD497	CM DP	6 8	1 3
TDE1637-CM TDE1647-CM	RELAY AND LAMP-DRIVER designed for high current and high voltage applications.	High output current. Adjustable short-circuit protection. Internal thermal protection with hysteresis to avoid the intermediate output levels. Peak supply voltage range up to 50 V (t _r < 10 ms) TDE1637-CM : Large supply voltage range : 10 to 30V. TDE1647-CM : Large supply voltage range : 10 to 45V.	CD294 CD294	CM CM	6 6	1 1
TDB2033	PREAMPLIFIER FOR REMOTE CONTROL SYSTEM. provided for Infra-red distant control signal.		CD495	DP	16	3
TDB2608-DP TDE2608-DP	ANALOG ADJUSTABLE TIMERS.	Two high current complementary protected outputs. Distant control and disturbance protection. Adjustable comparator Hysteresis from 0 to 50%.	CD496 CD496	DP DP	14 14	4 4

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TEA1001-SP	SWITCH-MODE POWER SUPPLY CONTROL.	Direct power transistor driving. Output current : $\pm 2A$ Automatic control of base current. Fully protected.	CD498	SP	17	2
TEA1002-SP	PAL COLOUR ENCODER AND VIDEO SUMMER. encoding colour information and providing a composite video output suitable for driving a VHF/UHF modulator.	Internal 8,86 MHz oscillator. Adjustable DC output level. The output is a 16 colour, including black and white, composite video signal, based on 75% colour bars.	CD499	DP	18	4
TEA1007	PHASE CONTROL OF AC LOADS.	Current consumption $\leq 2,5$ mA One supply voltage. Direct supply from the mains possible. Power dissipation in series resistance $\leq 1,5$ W. Ignition pulse typ 150 mA. Output short circuit protected. Integrated gate-block-resistance. Voltage and current synchronisation. Internal supply voltage control.	—	DP	8	5
TEA1009	PREAMPLIFIER FOR IR REMOTE CONTROL SYSTEMS. (Especially intended as a preamplifier for the SAA1250/1251 or SAA1350/1351).	Multistage gain-controlled amplifier. Separation stage to separate the pulse shaped intelligent signal from the noise and spurious signals. IR detector photo pin diode.	—	DP	14	2
TEA1014	VIDEO AND AUDIO SIGNALS SWITCHING FOR THE PERI-TELEVISION PLUG providing all video and sound switching allowing connections between the peri-TV plug and video, sound sections in the TV set.	Video cross talk ≥ 60 dB. Low impedance video output (75 Ω) Short-circuit protection of inputs and outputs. Internal horizontal PLL time constant switching in case of video recorder reception.	CD500	DP	16	11
TEA1020-SP	VERTICAL SWEEP FOR LARGE SCREEN COLOUR TV RECEIVERS. Its large output transistor and special "Power-in-line" case make it able to work without any external power stage and give it a good reliability.	Fly-back generator. Triggerable ramp generator. Power amplifier. Blanking-pulse generator. Safety systems.	CD501	SP	17	2

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TEA1029	COMPLETE CHROMA PROCESSING FOR SECAM COLOUR TV-RECEIVERS. including all the required functions to obtain (R-Y) and (B-Y) signals, without any adjustment of DC black levels.	Chroma amplifier with AGC. Permutator. PLL demodulator (quartz controlled) Identification and killer circuit. Automatic output switch system.	CD502	DP	24	7
TEA1030 TEA1030A	COMPLETE VIDEO PROCESSING FOR COLOUR TV SETS. including all the required functions between (R-Y) and (B-Y) decoder and the three high voltage video output stages.	Double video chroma amplifier. for (R-Y) and (B-Y) input signals including saturation colour control. (G-Y) matrixing. Video luminance amplifier. R-G-B matrixing (with 30% over-matrixing on R for TEA1030A version). Blanking and provision for automatic black level adjustment. Three inputs for R-G-B external signals. Triple high speed video switch. Contrast and brightness controls.	— —	DP DP	28 28	2 2
TEA1035-DP14 TEA1035-DP18 TEA1035-DP24 TEA1035U	MULTI-CHANNELS AF STEREOPHONIC SWITCH with priority allowing to select one of - five stereo channels with the TEA1035U and 1035DP24 version. - four stereo channels with the TEA1035-DP18 vers. - three stereo channels with the TEA1035-DP14 vers. Using several circuits allows to select one of N channels.	Control process with priority and negative logic. Non selected channel separation 80 dB typ. Distorsion < 0,01 % typ Circuit protected against short-circuit on the outputs and on the bias voltage pin.	CD503A CD503B CD503C CD503	DP DP DP U	14 18 24 24	4 7 7 1
TEA1045	TELEPHONE SUBSET AMPLIFIER specially designed for use in a telephone subset to amplify the output from the handset microphone to the telephone line and to amplify the incoming speech on the line to the earpiece transducer.	Gain controlled amplifier. Low supply current. Cancellation current to achieve required reduction in sidetone. Balanced microphone input circuit for reduced sidetone. Stabilized DC output. Low send an receive noise.	CD504	DP	18	1A
TEA1087	HIGH CURRENT CASCADE AMPLIFIER UP TO 300 MHZ. IF preamplifier for surface wave filters.	High gain. Low feedback. High input signal opportunity. High internal resistance. High dynamic stability.	CD505	CM	3	3

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
TEB1026	LATCH CIRCUIT FOR 8 RELAYS. Its function is to select an hold-relays. The relay latch circuit is used together with a relay control circuit TEB1027 (see hereafter).	This circuit includes 8 thyristors and components for turn-on of a certain thyristor. Cathodes connected to VEE (pin 8). Anodes connected to one output each (pin 9 to 16) Selection of a certain thyristor made with two active low signals.	CD506	DP	16	11
TEB1027	RELAY CONTROL CIRCUIT intended to control (turn-on, holding and release) the operation of relay.	8 drivers. One address decoder. Input stages for two control signals.		DP	16	11
TEC1031 TEC1032	RELAY DRIVERS. especially designed to interface DTL, TTL Logic into high current such as relays and other inductive loads. (also for resistive loads).	Current controlled Darlington transistors with two levels on the output : driving or non driving. The greatest advantage is their ability to dissipate load energy at turn-off. TEC1031 has a PNP transistor at the input which gives level-shift sothat the circuit can drive loads where positive ground is used.	CD507	CM CM	3 3	2 2
TFA1001W	PHOTO DIODE WITH AMPLIFIER for use in - exposure meters. - exposure control systems. - electronic flashes - smoke detectors. - linear opto couplers. - optical hunting control.	Open NPN collector output supplying a current directly proportional to the illuminance. Another output supplying a stabilized voltage of 1,35 V available as a reference. High sensitivity. High output current linearity. Good spectral sensitivity. Low current consumption. Wide modulation range. Wide operating voltage range.		FP	6	1
TUA1000	U.S.W. TUNER.		CD508	DP	16	1
TUA2000	U.H.F. TUNER.		CD509	DP	16	1
UAA145	PHASE CUTTING DRIVER For phase control IC.	Monolithic IC.	CD292	DP	16	7

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
UAA146	PHASE CONTROL CIRCUIT suitable for phase-control in high precision regulators.	Separate pulse outputs for the positive and the negative half-cycle of the sync.signal. Output pulse-width freely adjustable. Phase angle variable from 0 to 180°. High impedance phase shift input. Output pulse blocking possible.	CD510	DP	16	7
UAA170 UAA170K UAA170L	IC FOR DRIVING LED ARRAYS (Light spot display) for driving 16 light emitting diodes.	Depending on the input voltage, the individual LEDs within one array are triggered in form of a luminous spot. Whereas the UAA170 provides a linear relation between trigger voltage and the driven LED, the UAA170L has a pre-equalizing charact.	CD289 CD289 CD289	DP / DP	16 16 16	1 1 1
UAA180	IC FOR DRIVING LED DISPLAYS. As UAA170 but different luminescence-diode driving.		CD289	DP	16	1
UAA190	ONSCREENING OF THE BARGRAPH IN TELEVISION PICTURE. allowing the selected tuning frequency to be displayed in the TV picture.	The length of the indicator corresponds to the selected tuning voltage and therefore to the received frequency. The indicator is blended into the TV pictures between lines 88 and 95. In order to locate the correct position for the indicator the IC requires field fand line pulse signals.	CD512	DP	8	6
UAA1003	SPEECH GENERATOR WITH 7-SEGMENT. INPUT IN N-CHANNEL SILICON GATE TECHNOLOGY, MASK-PROGRAMMABLE FOR DIFFERENT LANGUAGES AND VOCABULARIES. To be used as speech output in clocks, telephone answering equipment, status and emergency signalling etc... UAA1003-1 is programmed for announcement of time in a talking clock, in the German language. UAA1003-2 : programmed for French language time announcement. UAA1003-3 : for English.	Each word generat by the speech generator consists of a number of staircase-shaped pulses having a fixed period of 10 ms. Each pulse is built up from 128 steps. The smallest amplitude variation is one sixteenth of the peak amplitude. This means 4 bit amplitude information. Depending on digital control signals the stored vocabulary is combined into different phrases.	CD513	DP	40	1

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

ANALOG-DIGITAL CIRCUITS

GENERAL DATA
GENERALITES
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TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
UAA1004-CM -DP	ZERO VOLTAGE SWITCH designed for use in high volume AC power switching applications with output drive capable of triggering SCRs or triacs. To be used in Heater control. Hot plate control. Photo control. Threshold detector. Valve control. On off power control. Relay driver. Lamp driver.	Direct AC line or DC operation. Zero voltage crossing detector. High impedance differential input. Built in hysteresis. High impedance differential amplifier which supervises the sensor and insures that the triac will never turn "on" due to sensor failure Voltage regulator.	CD514	CM DP	8 8	1 3
UAA1008A-DP	TUNING SYSTEM LINEAR PROCESSOR CIRCUIT. providing the interfacing between the digital section of the tuning memory system and the TV set, and supplying the necessary functions and stabilized voltages for operating the complete system.	34V regulation. 5V regulation for supply of all VDD external lines Supply voltage supervisory control Band decoding and driver (35mA) TV station capture control with help of fly-back, video, and AFC signals.	CD515	DP	24	5
UAA1009	TRAFFIC BROADCAST ARO DECODER CIRCUIT. in I L technology developed for application in car radios with traffic broadcast decoder.	In principle it is a frequency meter controlled by a reference oscillator which comprises a 32 kHz crystal.	CD516	DP	16	1
UAA1040	AUTOMOTIVE DIRECTION INDICATOR.	Internal oscillator for "normal" and "out of service" flash frequency. Accurately controlled current sensing. All pins are overvoltage protected. Conforms to AFNOR, ISO and VDE recommendations. Reverse battery connection protection.	—	DP	8	2
UAA2000	PHASE LOCKED LOOP CONTROL CIRCUIT. designed to control the phase locked loops in frequency synthesizers as used in TV applications. It uses an input data format which makes it well suited for use with processor control.	14-bit variable divider and 4-bit band select. PPL with phase and frequency comparator. Filter and tuning voltage amplifier. 16 MHz max input frequency. Pin option for 125 kHz or 62,5 kHz resolution. 4 band driver outputs.	CD517	DP	24	

NOTES : (1) Shape and material, see outlines code
(2) Number of connections
(3) Drawing serial number, see Chapter "Outlines"

TYPE	FUNCTION - APPLICATION	DESCRIPTION	CIRCUIT DIAGRAM NUMBER	PACKAGE		
				1	2	3
UAA2001	SYNTHESIZER AMPLIFIER AND DRIVER designed for use in frequency synthesizers where it sets up the phase locked loop.	Direct tuner drive from 4 band drivers. 60 mA band driver capability. Direct control of the tuner's varicap diode.	CD518	DP	16	15
UAA2002	FREQUENCY SYNTHESIZER PRESCALER designed to be used in radio applications.	AM and FM preamplifiers and switchable dual-modules divider. Divide by 80/82 operation to 120 MHz (FM band) Divide by 10/11 operation to 20 MHz (AM bands) High input sensitivity (50 mV) Wide temperature rang : -25 to 70°C.	CD519	DP	16	13A
UAA2010	SYNTHESIZER AMPLIFIER AND DRIVER designed for use in frequency synthesizers.	Direct tuner drive from 4 band drivers. Direct control of the tuner's varicap diode. Interface for external open collector band drivers. Extremely low input current (1nA typ).	CD518	DP	16	15
UAA3000	TIMER FOR CONTROL OF MAINS SUPPLIED RESISTIVE LOADS. It directly controls a triac with negative pulses.	Direct supply by mains via a dropping resistor. Timing selectable from 1 to 15 hours or minutes. Triac triggered by negative pulses centered at zero crossing of mains voltage. Adjustable output current.	CD520	DP	14	2
UAC1005	HIGH SPEED A/D CONVERTER. 4 bit fully parallel (flash) cascable A/D converter. It will accurately sample and directly encode input signals with frequency components up to 3 MHz.	It consists of an array of 16 comparators, a resistive voltage divider and ECL compatible binary encoder. The 16 input comparators do not have sampling latches, so UAC1005 permanently converts input signal with a propagation delay input output of 30ns. Conversion can be stopped and output states latched any time with the EM signal command.	CD521	DG	24	3

NOTES : (1) Shape and material, see outlines code
 (2) Number of connections
 (3) Drawing serial number, see Chapter "Outlines"

AUDIO AMPLIFIERS

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS (at operating temperature range)							CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)												
	V _{CC}	V _I	P _{tot}	°T _j T _{oper}		T _{stg}		P _O	at		°I _{CC}	I _O	V _O	°R _I Z _I	d	P _O	A _V at	V _{CC}	R _L	f
	V	V	W	°C		°C		W	V	Ω	mA	mA	V	kΩ	%	mW	dB	V	Ω	kHz
	max	max	max	min	max	min	max	max			typ	typ	typ	typ	typ		max			
TAA263	8	15	0,07	-20	100	-55	125	0,01 ^b			10!	12	7!	10	10"	77 ^k				1
TAA480	25	0,31 ^c	0,2 ^b	-5	75	-55	125					4 ^c	70"	1!	1000	15				
TAA611A	12	12	0,57			-55	150	0,5'	6	8		1000	4,8	750	0,4	50	68	9	8	1
	12	12	1,15			-55	150	0,5'	6	8		1000	4,8	750	0,4	50	68	9	8	1
TAA611B	15	15	1,35			-55	125	0,9'	9	8		1000	4,8	750	0,4	50	68	9	8	1
TAA611C	22	20	2			-40	150	1,7'	12	8			6,3	5000	0,3	50	72	15	8	1
TAA621	27	27	2			-55	150	1,7'	18	16		1000		150	0,1	50	72	18	16	1
TBA641A	12	12	1,5			-40	150	2,2'	9	4			4,5	3000	0,6	50	46	9	4	
TBA641B	18	18	2,3			-40	150	4,5'	14	4			8	3000	0,3	50	46	14	4	
TBA800	30		1g			-25	125	5'	24	16		9f	12	5000	0,5	50	46	24	16	1
TBA800A	30	0,3'		-40	*150	-40	150	5'	24	16	10n			5000	0,5	50	80	24	16	1
TBA810	20		1h	-40	*150	-40	150	2,3	9	4		9f	7,2	5000	0,7	50	40k	14,4	4	1
TBA810A	20		1h	-40	*150	-40	150	2,3	9	4		9f	7,2	5000	0,7	50	40k	14,4	4	1
TBA810CB	40		1h	-40	*150	-40	150	6'	14,4	4	4n	7,2	*5000	0,3	50	80	14,4	4	1	
TBA810P	20		1h	-40	*150	-40	150	6'	14,4	4	4n	7,2	*5000	0,3	50	80	14,4	4	1	
TBA810AP	20		5	-40	*150	-40	150	6'	14,4	4	4n	7,2	*5000	0,3	50	80	14,4	4	1	
TBA810S	20		1g	-40	*150	-40	150	2,5	9	4		12f	7,2	5000	0,3	50	40k	14,4	4	
TBA810SH	20	0,22e	1h	-40	*150	-40	150	2,5	9	4		12f	7,2	5000	0,3	50	44,4	14,4	4	
TBA810AS	20		1g	-40	*150	-40	150	2,5	9	4		12f	7,2	5000	0,3	50	40k	14,4	4	
TBA820	16		1,25i			-40	150	2	12	8		4f	4,5	5000	0,4j	500	75!	9	8	
TBA820CM	16					-40	150	1,2'	9	8	10n	4,5	*5000	0,4	500	75	9	8	1	
TBA820M	16					-40	150	1,2'	9	8	10n	4,5	*5000	0,4	500	75	9	8	1	
TBA830R	16		0,5	-20	55	-55	125					1,5				43		400		
TBA915	12	0,01	0,65	-55	125	-55	125	0,5	20					9	2,5	500				
TBA915G	17			-55	125	-55	125	0,5	12	20	2			9	2,5	500				
TCA150KA	15		5 ^m			-25	150	4	12	4	0,05	6	50000	0,5	50	49	12	4	1	
TCA150KB	18		5 ^m			-25	150	5,5	14	4	0,05	7	50000	0,5	50	49	14	4	1	
TCA150NA	15		5 ^m			-25	150	4	12	4	0,05	6	50000	0,5	50	49	12	4	1	
TCA150NB	18		5 ^m			-25	150	5,5	14	4	0,05	7	50000	0,5	50	49	14	4	1	
TCA150NBT	18		5 ^m			-25	150	5,5	14	4	0,05	7	50000	0,5	50	49	14	4	1	
TCA760B	14		1,4	-25	125	-55	125	0,8	9	8			15	0,7	700	70'	9	8		
TCA830	16		1,2 ^h	-30	70	-55	125	2'	9	4	0,5	7		10	2000	75'	12	4	1	
TCA830A	16		1,2 ^h	-30	70	-55	125	2'	9	4	0,5	7		10	2000	75'	12	4	1	
TCA830S	20		5 ^e			-40	150	2'	9	4			6	5000	0,3	2000	75'	12	4	
TCA830SR	20		4,2	-40	*150	-40	150	2	9	4	2n	6,7	5000	0,3	50	75'	12	4	1	
TCA940	24		1,25j			-40	150	9	18	4		3500!	9	5000	0,3	50"	75'	18	4	
TCA940E	24		1 ^e			-40	150	5,4	18	8		3500!	9	5000	0,2	50"	75'	18	8	
TCA940N	28		1,25j	-40	*150	-40	150	7'	16	4	5n		9	*5000	0,3	5000!	75'	18	4	

' : typical value
" : minimum value
! : maximum value

NOTES :

- (a) transducer gain
- (b) at d_{tot} = 10%; f = 1 kHz
- (c) rms
- (d) up to Tamb = 75°C
- (e) at Tamb = 80°C
- (f) quiescent I_D
- (g) at Tamb = 70°C
- (h) at Tamb = 55°C
- (i) at Tamb = 50°C
- (j) at R_f = 120 Ω
- (k) A_V closed loop
- (m) up to Tamb = 100°C
- (n) X 10⁻¹⁴

TYPE	RATINGS (at operating temperature range)						CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)													
	V _{CC}	V _I	P _{tot}	°T _j T _{oper}		T _{stg}		at			I _I	I _O	V _O	°R _I Z _I	at		A _v at			
	V	V	W	°C		°C		P _O	V _{CC}	R _L	I _I	I _O	V	kΩ	d	P _O	°A _I	V _{CC}	R _L	f
	max	max	max	min	max	min	max	max	V	Ω	mA	mA	V	typ	typ	typ	max	V	Ω	kHz
TDA1002A	12		0,6	-25	125	-65	125													
TDA1004A	24		11	-25	150	-55	150	5,5	20											
TDA1009	24		15	-25	150	-55	150	6	16											
TDA1010	24		6	-25	150	-55	150	3,4	14,4											
TDA1010A	24		6	-25	150	-55	150	3,4	14,4											
TDA1011	24		6	-25	150	-55	150	3,6	12											
TDA1011A	24		6	-25	150	-55	150	3,6	12											
TDA1012	18		2		150	-55	150	2	9											
TDA1013	35		6	-25	150	-55	150	4,5	18											
TDA1028	23		5																	
TDA1029	23	800		-30	80	-50	80													
TDA1037	28			-25	85	-40	125	5	14											
TDA1037D	28			-25	85	-40	125	5	14											
TDA1042	18			-25	150	-55	150	10'	14											
TDA1045	12		550		-25	125	1,3		9											
TDA1054M	20		0,5	-40	150	-40	150													
TDA1088	30		4	-25	150	-55	150	6	16											
TDA1099-SP	36		10		150	-40	150	8	14,4											
TDA1100-SP	18				150	-25	150	8	14											
TDA1102-SP	36		20		150	-40	150	20	28											
TDA1103-SP	36				150	-40	150	20	28											
TDA1510	18		15		150	-55	150	24!	14,4											
TDA1512	35		15	-25	150	-55	150	25'	32											
TDA1905	30		1	-40	150	-40	150	5,5'	14											
TDA1908	30		1	-40	150	-40	150	9'	18											
TDA1908A	30		5	-40	150	-40	150	9'	18											
TDA1910	30		20	-40	150	-40	150	12'	24											
TDA2002	28		15	-40	150	-40	150	6,5'	16											
TDA2002H	28		15	-40	150	-40	150	6,5'	16											
TDA2002V	28		15	-40	150	-40	150	6,5'	16											
TDA2003	28		20	-40	150	-40	150	6'	14,4											
TDA2004	28		30	-40	150	-40	150	6,5	14,4											
TDA2005	28		30	-40	150	-40	150	20'	14,4											
TDA2006H	15		15	-40	150	-40	150	12'	12											
TDA2006V	15		15	-40	150	-40	150	12'	12											
TDA2008	28		15	-40	150	-40	150	12'	20											
TDA2010	18		18s	-40	150	-40	150	12'	14											
TDA2020	22		22sd	-40	150	-40	150	20'	18											
TDA2020D	25		25sd	-40	150	-40	150													
TDA2030H	18		18	-40	150	-40	150	14	14											
TDA2030V	18		18	-40	150	-40	150	14	14											
TDA2054M	20		0,2	-40	150	-40	150													
TDA2310	22		15	-40	150	-40	150													
TDA2610A	35r		15m	-25	150	-55	150	4	25											
TDA2611A	35		6	-25	150	-55	150	1,7	12											
TDA2612	35		15		150		150	10	26											
TDA2870	20		5	-25	85	-40	125	6'	14,4											
TDA3410	36		0,6			-40	150													
TDA4260	15			-25	60	-40	125													
TDA4920	18			-20	85	-20	135	1,2'	6											
TDD0246	66		0,72	-28	60	-55	125													

NOTES :
 (d) up to Tamb = 75°C
 (f) quiescent I_D
 (m) up to 100°C
 (p) preamplifier
 (q) at V_i = 4,8 mV
 (r) at pin 1; 38 V at pin 5
 (s) up to 95°C

FM-IF AMPLIFIERS

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS				CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)																	
	V _{CC}	P _{tot}	T _j T _{oper}		I _{CC} I _{tot}	V _I lim	V _O (rms)	α		G _V	d _{tot}	R _I Z _I	R _O Z _O	f (-3dB)	f	S _{AFC}	S/N _N S/N	M _{inter}	DC _{VC}	Test conditions		
	V	mW	°C		mA	μV	V	dB	mV	%	κΩ	κΩ	MHz	MHz	mV	dB	dB	dB	V	κΩ		
	max	max	min	max	typ	typ	ty	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	min			
TAA661A TAA661B	15 15	350 500	0 0	70 70	20b 20b	100a 100a	1,4 1,4	45 45	10 10		1 1	2 2	0,1 0,1							12 12	2,5 2,5	
TBA120A TBA120C TBA120CQ TBA120D TBA120DQ TBA120S TBA120AS TBA120T TBA120U TBA460	15 18 18 18 18 18 18 18 18 12 12 18		-15 0 0 0 0 -15 -15 -15 -15 0 0 0	70 75 75 75 75 70 70 70 70 70 70 70	*16,5 *14 *14 *14 *14 *14 *13,5 *13,5	50 30d 30d 30d 30d 30 30 30 30 15g 500	0,85 1 d 1 d 1 d 1 d 1 1 1 1 0,12 0,35	55 45" 45" 45" 45" 55 55 60 60 50	10 0,5 0,5 0,5 0,5 68e 68e 60e 60e 90 86 72f		1,8 3 3 3 3 3 3 3 3 0,3	*15 *40 *40 *40 40 (AM-IF portion) (FM-IF portion) (AF portion)							60' 60" 60"	12 12 12 12 12 12 12 12 12 9 9 9	5 20 20 20 20 5 5 12 12 12 9 9 9	
TBA460Q TBA750/Q TBA750B TBA750C TBA750CQ	18 25 25 25	675 675 675 675	-25 -10 -25 -25	55 65 55 55	23 23 45! 45!	100 100 130 130	1 1 2,7 2,7	40 55 50 50	1 (c) 10 10	10 0,5 3 3	3 60 35 35			5,5 5,5 5,5					80' 80'	12 12 12 12	100 100	
TCA3089 TCA3189 TCA4500A	16 16 16	800 800 1800	-25 -25 -40	70 85 85	*23 *31 35		5,6 0,5	55 55	100 100		0,5 0,1 1		*50 *0,1							67 72 85	12 12 12	
TDA1200 TDA2190 TDA2190F TDA2546 TDA2790 TDA2791 TDA2840 TDA2841 TDA3190 TDA4200 TDA4942	16 28 28 13,2 14 13,2 15 15 28 18 16,5	500 15 15 -25 1000 1000	-25 -40 -40 -25 -25 -40 -40 -40 -40 -40	70 *150 *150 70 65 65 125 125 125 125 125 150	*23 *150 *150 53 64 79! 35 37 45 45 20 15	12 40 40 100 100 100 100" 300! 40 20 15	0,14 12 12 9' 0,1 0,7 100" 300! 0,12 60	40 62 62 9' 45 50 1 1 55 60	1 1 1 1 1 1 1 1 1	0,5 0,5 0,5 0,5 8 4 4 0,4 0,75 0,5 0,5!			0,1 0,1 0,1 0,1 0,1 0,1 0,1 0,1 0,1 0,1 0,1							60 67 67 52 56 56 56 *65 70 70	12 24 24 12 12 12 13 12 24 8,5 14,4	
TEA5560	24	1000	-30	85	20	150	0,19	50			0,35				10,7					70	14,4	

! : typical value
" : minimum value
! : maximum value

NOTES :

- (a) at f = 5,5 MHz
- (b) quiescent drain current
- (c) AF amplifier gain = 8 dB
- (d) rms at f = 5,5 MHz
- (e) I_F voltage gain (f = 5,5 MHz)
- (f) quiescent voltage gain
- (g) input voltage starting

TYPE	RATINGS				CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)																	
	$V_{I_{CC}}$	P_{tot}	T_{oper}		$I_{I_{CC}}$	$V_{I_{lim}}$	V_O	α		G_V	d_{tot}	dG	dG	$d\phi$	$d\phi$	S_{AFC}	S/N	M_{inter}	DC_{VC}	Test conditions		
	V	mW	°C		mA	μV	V	dB	mV	typ	%	%	%	°	°	mV	dB	dB	dB	V	R_L	
	max	max	min	max	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	min		v	k Ω
TAA570	18		-25	125	19	100	1,8	47	10	2,5												
TBA780	*3	850	0	85	*16	200	2,5	50	100	20	0,9								60		30	
TCA420A	18	720	-25	80	26	35	0,115	40	0,3	65dB	0,8a						26				15	
TCA770A	15	4,5	-30	70	0,45	30	0,09b	50b	1	600	2										7,5	
TCA770D	15	4,5	-30	70	0,45	30	0,09b	50b	1	600	2										7,5	
TDA1035T	30	1000			400!	100!	0,8c	40	1	40dB	1										24	16
TDA1048	16,5	700	0	60	37	200															12	
TDA1050	16	500			*16,5						3								70'		14	
TDA1190	28	1000	-40	150	19	30	12	55	1		0,55						50d				24	16
TDA1190Z	28	1000	-40	150	19	30	12	55	1		0,55						70				24	16
TDA1235	15		0	70		30	0,6	55	10	1	1						70				24	16
TDA2540	13,8	900	-25	70	50	150	3,07			64dB	4			2							12	
TDA2540Q	13,8	900	-25	70	50	150	3,07			64dB	4			2			58	50			12	
TDA2541	13,8	900	-25	60	50	100	3,07			64dB	4			2			58	50			12	
TDA2541Q	13,8	900	-25	60	50	100	3,07			64dB	4			2			58	50			12	
TDA2542	13,8	900	-25	60	50	100	2,9			64dB	4			2			58	50			12	
TDA2542Q	13,8	900	-25	60	50	100	2,9			64dB	4			2			58	50			12	
TDA2544	13,8	1200	-25	65	50	150	5,5			63dB	4			2			80				12	
TDA2544Q	13,8	1200	-25	65	50	150	5,5			63dB	4			2			80				12	
TDA3540	13,2	1100	-25	70	70	70	3,07			65dB	5			2				46			12	
TDA3540Q	13,2	1100	-25	70	70	70	3,07			65dB	5			2				46			12	
TDA3541	13,2	1100	-25	70	70	70	3,07			65dB	5			2				65			12	
TDA3541Q	13,2	1100	-25	70	70	70	3,07			65dB	5			2				65			12	
TDA3541Q	13,2	1100	-25	70	70	70	3,07			65dB	5			2				65			12	

: typical value
: minimum value
: maximum value

NOTES :

- (a) $f = \pm 75$ kHz
- (b) $f = \pm 3,5$ kHz
- (c) 0,8 V at pin 12, 06V at pin 3
- (d) input -10mV

AM-FM AMPLIFIER

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS			CHARACTERISTICS (at Tamb=25°C unless otherwise stated)													CONDITIONS			
	V _{CC}	P _{tot}	I _{tot}	V _{CC} range		AF P _O	at d _{tot}	AM PART					FM PART			f _I	f _{mod}	V _{CC}	f _{IF}	
	V	mW	mA	min	max	mW	%	I _{TR3C}	RF V _T	A _{GC} range	G _V	V _{Orms}	G _V	V _{Orms}	α					MHz
	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	max			
TAA991D TAA991Q	11 11		6 6	4,5 4,5	11 11			2 2		60 60	90 90	120 120	86 86	225 225	300 300	50 50		1 a 1 a	9 9	460 b 460 b
TBA570A TBA570AQ TBA700	8 8 9'	850 850 1000	100 100 24,5	2,7 2,7 2,7	18 18 12	1800 1800 1000	10 10 10		18 18 15	65 65 72		70 70 100			120 120 140	40!			5,3 5,3 9'	
TDA1046 TDA1047 TDA1083 TDA1090 TDA1220 TDA1220A TDA2048 TDA4281T TDA4282T TDA5700 TDA5700Q	18 18 12 16 16 16 16,5 15 15 8 8	500 550 750 800 800 1100 1100	25! 9,5! 42		10 16 4 4 10 11 11 2,7 2,7		450 10	10 16	5 12 12	70" 80" 80"	80	325 80 80	50	80 12 18 18	425 80 80	42 42		1 1	10 12 9 9 12 12 12	1000 10,7 460
TEA5550	24	1100	20	10,2	16	300		1	5,5!			180						1	14,4	1000

' : typical value **NOTES** : (a) for FM part
" : minimum value
! : maximum value (b) for AM part

TYPE	RATINGS (at operating temperature)							CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)															
	V _{CC+}	V _{CC-}	V _I	V _{ID}	P _{tot}	T _{oper}	A _v at	R _L		V _O	I _{CC}	Z _I	V _{opp}	R _L	°SVR	V _{IO}	R _S	I _{IO}	I _{IB}	SR	at		
	V	V	V	V	mW	°C	°dB	kΩ	V	mA	kΩ	V	kΩ	dB	mV	kΩ	nA	nA	V/μs	kΩ	pF	V	
	max	max	max	max	min	max	typ	min		max	min	typ		typ	typ	max	typ	max	typ				
TAA495	9	15				-25	125	300	2														
TAA521	18	18				0	70	45 ^a	2														
TAA521A	18	18	10	5	200	0	70	45 ^a	2														
TAA522	18	18	10	5	200	0	70	45 ^a	2														
TAA761	18	18				-55	125	93*	2														
TAA761A	18	18				0	70	85*	2														
TAA761G	18	18				0	70	85*	2														
TAA761GG	18	18				0	70	85*	2														
TAA761K	18	18				0	70	85*	2														
TAA761W	18	18				0	70	85*	2														
TAA762	18	18				-55	125	87*	2														
TAA762S	18	18				-55	125	87*	2														
TAA765	18	18				-25	85	85*	2														
TAA765A	18	18				-25	85	85*	2														
TAA765G	18	18				-25	85	85*	2														
TAA765GG	18	18				-25	85	85*	2														
TAA765W	18	18				-25	85	85*	2														
TAA861	10	10				0	70	80*	2														
TAA861A	10	10				0	70	80*	2														
TAA861G	10	10				0	70	80*	2														
TAA861GG	10	10				0	70	80*	2														
TAA861W	10	10				0	70	80*	2														
TAA862	10	10				-55	125	87*	2														
TAA865	10	10				-25	85	80*	2														
TAA865A	10	10				-25	85	80*	2														
TAA865G	10	10				-25	85	80*	2														
TAA865GG	10	10				-25	85	80*	2														
TAA865W	10	10				-25	85	80*	2														
TAA2761	18	18				0	70	85*	2														
TAA2761A	18	18				0	70	85*	2														
TAA2762	18	18				-55	125	87*	2														
TAA2765	18	18				-25	85	85*	2														
TAA2765A	18	18				-25	85	85*	2														
TAA4761A	18	18				0	70	85*	2														
TAA4765A	18	18				-25	85	85*	2														
TAB1042D	18	18	5	18	600	0	70	80	100														
TAB1042P	18	18	5	18	600	0	70	80	100														
TAB1453	18	18				0	70	85															
TAB1453A	18	18				0	70	85															
TAB1453W	18	18				0	70	85															

: typical value
: minimum value
: maximum value

NOTES : (a) X 1000

OPERATIONAL AMPLIFIERS

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS(at operating temperature)						CHARACTERISTICS(at Tamb=25°C, unless otherwise stated)																
	V _{CC+}	V _{CC-}	V _I	V _{ID}	P _{tot}	T _{oper}	A _v at		I _{CC}	^o R _I Z _I	V _{opp}	CMR at		V _{IO}	R _S	I _{IO}	I _{IB}	SR	R _L	C _L	V _I		
	V	V	V	V	mW	°C	dB	kΩ	V	kΩ	V	kΩ	dB	mV	kΩ	nA	nA	V/μs	kΩ	pF	V		
	max	max	max	max	max	min	max	typ	min	max	min	typ	typ	typ	max	typ	max	typ					
TBA221	18	18	15	15	85	0	70	*100	2	10		300	14	10	90	2	10	20					
TBA221A	18	18	15	30	85	0	70	*100	2	10		300	14	10	90	2	10	20					
TBA221B	18	18	15	30	85	0	70	*100	2	10		300	14	10	90	2	10	20					
TBA221N	As TBA221 but with low noise selection.																						
TBA221G	18	18	18	30		0	70	*100	2	10	2,8	*300	13	2	90	6"	10	20	500		0,5	2	
TBA221GG	18	18	18	30		0	70	*100	2	10	2,8	*300	13	2	90	6"	10	20	500		0,5	2	
TBA221K	18	18	18	30		0	70	*100	2	10	2,8	*300	13	2	90	6"	10	20	500		0,5	2	
TBA221W	18	18	15	30	85	0	70	*100	2	10		300	14	10	90	2	10	20			0,5	2	
TAA222	22	22	15	30	85	-55	125	*106	2	10		300	14	10	90	2	10	20			0,5	2	
TAA222Q	22	22	18	30		0	70	106	2	10	2,8	*300	13	2	90	4	10	20	350		0,5	2	
TAA222S	22	22	18	30		0	70	106	2	10	2,8	*300	13	2	90	4	10	20	350		0,5	2	
TAA231A	18	18		5	500	0	70	20 a	50	5	14	*37	28	50	90	1	0,2	50	2 a		1	4,7	10
TBB0324A	16	16	16	16		0	70	*100	2	15			28	10		9		5	45				
TBB0747	18	18	15	30	85	0	70	*100	2	10	2,8	300	14	10	90	6!	10	20	500		0,5	2	
TBB0747A	18	18	15	30	85	0	70	*100	2	10	2,8	300	14	10	90	6!	10	20	500		0,5	2	
TBC0747	22	22	15	30	85	-55	125	*106	2	10	2,8	300	14	10	90	5!	10	20	500		0,5	2	
TBB0748	22	22	15	30	85	0	70	*100	2	10	2,8	300	14	10	90	6!	10	20	500		0,5	2	
TBB0748B	22	22	15	30	85	0	70	*100	2	10	2,8	300	14	10	90	6!	10	20	500		0,5	2	
TBC0748	22	22	15	30	85	-55	125	*103	2	10	2,8	300	14	10	90	5!	10	20	500		0,5	2	
TBB1331A	17	17		13		0	70	*68	18		2,5	3 a	14,8	18	74	20"	18	10	30				
TBB1458	18	18	15	30	170	0	70	*100	2	10	5,6	300	14	10	90	6!	10	20	500		0,5	2	
TBB1458B	18	18	15	30	170	0	70	*100	2	10	5,6	300	14	10	90	6!	10	20	500		0,5	2	
TBC1458	22	22	15	30	160	-55	125	*106	2	10	5	300	14	10	90	5!	10	20	500		0,5	2	
TBB2231	15	15	15	380		0	70	*80	2		5	3 a	10	2	85	10		10	50				
TBB2231B	15	15	15	380		0	70	*80	2		5	3 a	10	2	85	10		10	50				
TBC2332	15	15	15	380		-25	125	*87	2		5	10	2	85	12!		15!	35					
TBE2335	15	15	15	380		-25	85	*80	2		5	3 a	10	2	85	10		10	50				
TBE2335B	15	15	15	380		-25	85	*80	2		5	3 a	10	2	85	10		10	50				
TBB4331A	15	15	15	760		0	70	*80	2		10	3 a	10	2	85	10		10	50				
TBB4335A	15	15	15	760		-25	85	*80	2		10	3 a	10	2	85	10		10	50				

' : typical value **NOTES** : (a) X 1000
 " : minimum value
 ! : maximum value

TYPE	RATINGS (at operating temperature)							CHARACTERISTICS (at $T_{amb}=25^{\circ}C$, unless otherwise stated)																
	V_{CC+}	V_{CC-}	V_I	V_{ID}	P_{tot}	T_{oper}		A_v at		I_{CC}	Z_I	V_{opp}		CMR			I_{IO}	I_{IB}	at					
	V	V	V	V	mW	°C		$\%B$	$k\Omega$	V	$k\Omega$	V	$k\Omega$	$^{\circ}SVR$	V_{IO}	R_S	nA	nA	SR	R_L	C_L	V_I		
	max	max	max	max	max	min	max	typ	min	max	min	typ	min	typ	typ	typ	max	typ	max	typ	max	typ	max	
TCA220	18	18	18	5	550	-55	125	4a	10	3,5		25	3,5b	10	90c	2	0,2	200	2					
TCA220A	18	18	18	5	550	-55	125	4a	10	3,5		25	3,5b	10	90c	2	0,2	200	2					
TCA311	15	15	15	15	210	0	70	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA311A	15	15	15	15	210	0	70	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA311G	15	15	15	15	210	0	70	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA311GG	15	15	15	15	210	0	70	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA311W	15	15	15	15	210	0	70	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA312	15	15	15	15	210	-55	125	*83	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA315	15	15	15	15	210	-25	85	*80	2		2,5	3000	10	2	77e	14!	0,05	10	30					
TCA315A	15	15	15	15	210	-25	85	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA315G	15	15	15	15	210	-25	85	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA315GG	15	15	15	15	210	-25	85	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA315W	15	15	15	15	210	-25	85	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA321	15	15	15	15	210	0	70	*80	2		2,5	3000	10	2	74e	20!	0,05	10	50					
TCA321A	15	15	15	15	210	0	70	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA321G	15	15	15	15	210	0	70	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA321GG	15	15	15	15	210	0	70	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA321W	15	15	15	15	210	0	70	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA322	15	15	15	15	210	-55	125	*83	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA325	15	15	15	15	210	-25	85	*80	2		2,5	200	10	2	77e	5!	0,05	50	700	9				
TCA325A	15	15	15	15	210	-25	85	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA325G	15	15	15	15	210	-25	85	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA325GG	15	15	15	15	210	-25	85	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA325W	15	15	15	15	210	-25	85	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA331	15	15	15	15	190	0	70	*80	2		2,5	200	10	2	74e	7,5!	0,05	80	1000	9				
TCA331A	15	15	15	15	190	0	70	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA331G	15	15	15	15	190	0	70	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA331GG	15	15	15	15	190	0	70	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA331K	15	15	15	15	190	0	70	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA331W	15	15	15	15	190	0	70	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA332	15	15	15	15	190	-55	125	*83	2		2,5	200	10	2	74e	20!	0,05	10						
TCA335	15	15	15	15	190	-25	85	*80	2		2,5	200	10	2	74e	14!	0,05	15						
TCA335A	15	15	15	15	190	-25	85	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA335G	15	15	15	15	190	-25	85	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA335GG	15	15	15	15	190	-25	85	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA335W	15	15	15	15	190	-25	85	*80	2		2,5	200	10	2	74e	20!	0,05	10						
TCA520	11	11	0,9	6	400	-25	70	40a	5		0,1f				2			5	100	50	1	0	0	
TCA520B	11	11	0,9	6	400	-25	70	40a	5		0,1f				2			5	100	50	1	0	0	
TCA520D	11	11	0,9	6	400	-25	70	40a	5		0,1f				2			5	100	50	1	0	0	
TCA3002-DC	18	18		30		0	70	88	3	10		600	12	10	85	2	10					0,3	0	
TCA3002-DP	18	18		30		0	70	88	3	10		600	12	10	85	2	10					0,3	0	

: typical value
 : minimum value
 : maximum value

NOTES : (a) x 1000
 (b) up to $T_{amb} = 45^{\circ}C$
 (c) at $R_S = 2 k\Omega$
 (d) differential input resistance
 (e) at $R_L = 2 k\Omega$
 (f) input bias current

OPERATIONAL AMPLIFIERS

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS (at operating temperature)							CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)																									
	V _{CC+}	V _{CC-}	V _I	V _{ID}	P _{tot}	T _{oper}		A _v at			I _{CC}			Z _I			V _{opp}			CMR			I _{IO}		I _{IB}		SR		R _L		C _L		V _I
	V	V	V	V	mW	min	max	°dB	kΩ	V	mA	kΩ	V	kΩ	dB	mV	Ω	nA	nA	V/μs	kΩ	pF	V										
	max	max	max	max	max	min	max	typ	min	max	min	typ	typ	typ	max	typ	max	typ	max	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ	typ			
TDA1034	20	20	40	0,5	625h	-25	85	100a	0,6	10	8				100	0,5		20	1500	13		0											
TDA1034N	20	20	40	0,5	625h	-25	85	100a	0,6	10	8				100	0,5		10	800	13		0											
TDA1034D	20	20	40	0,5	500g	-25	85	100a	0,6	10	8				100	0,5		20	1500	13		0											
TDA1034ND	20	20	40	0,5	500g	-25	85	100a	0,6	10	8				100	0,5		10	800	13		0											
TDB0084-DP	18	18	15	30	680	0	70																										
TDC0084-DP	22	22	15	30	680	-35	125																										
TDE0084-DP	22	22	15	30	680	-25	85																										
TDB0118-CM	18	18	15		500	0	70	200a	2	10	10	3000'	13	2	100	4		30	600	50"													
TDC0118-CM	18	18	15		500	-55	125	200a	2	10	8	3000'	13	2	100	2	50a			70													
TDE0118-CM	18	18	15		500	-25	85	200a	2	10	10	3000'	13	2	100	4				50'													
TDB0124-DP	16	16	32	32	500	0	70	100a	2		3		14,5	2"	70	2	0																
TDB0124-FP	16	16	32	32	400	0	70	100a	2		3		14,5	2"	70	2	0																
TDB0124A-DP	16	16	32	32	500	0	70	100a	2		3		14,5	2"	85	2	0																
TDC0124-DG	16	16	32	32	500	-55	125	100a	2		3		14,5	2"	85	2	0																
TDC0124-DP	16	16	32	32	500	-55	125	100a	2		3		14,5	2"	85	2	0																
TDC0124A-DP	16	16	32	32	500	-55	125	100a	2		3		14,5	2"	85	1	0																
TDE0124-DP	16	16	32	32	500	-25	85	100a	2		3		14,5	2"	85	2	0																
TDE0124A-DP	16	16	32	32	500	-25	85	100a	2		3		14,5	2"	85	1	0																
TDB0146-DP	18	18	15	30	500	0	70	1000a	10	*10	2,5	1000'	14	10	100	0,5	50 a				0,4												
TDB0146-2-DP	18	18	15	30	500	0	70	1000a	10	*10	2,5	1000'	14	10	100	0,5	50 a				0,4												
TDC0146-DP	22	22	15	30	900	-55	125	1000a	10	*10	2	1000'	14	10	100	0,5	50 a				0,4												
TDC0146-2-DP	22	22	15	30	900	-55	125	1000a	10	*10	2	1000'	14	10	100	0,5	50 a				0,4												
TDE0146-DP	18	18	15	30	500	-25	85	1000a	10	*10	2,5	1000'	14	10	100	0,5	50 a				0,4												
TDE0146-2-DP	18	18	15	30	500	-25	85	1000a	10	*10	2,5	1000'	14	10	100	0,5	50 a				0,4												
TDB0148-DP	18	18	18	36	500	0	70	160a	2	10	4,5	800	12	2	90	1	10 a				0,5	15											
TDC0148-D G	22	22	22	44	500	-55	125	160a	2	10	3,6	800	12	2	90	1	10 a a				0,5	15											
TDC0148-DP	22	22	22	44	500	-55	125	160a	2	10	3,6	800	12	2	90	1	10 a a				0,5	15											
TDE0148-DP	18	18	18	36	500	-25	85	160a	2	10	4,5	800	12	2	90	1	10 a				0,5	15											
TDB0149-DP	18	18	18	36	500	0	70	5"																									
TDC0149-DP	22	22	22	44	500	-55	125	5"																									
TDE0149-DP	18	18	18	36	500	-25	85	5"																									
TDB0155-CM	18	18	16	30	500	0	70	25"a	2	10	4	10i	12	2	100	3	50				5												
TDB0155-DP	18	18	16	30	500	0	70	25"a	2	10	4	10i	12	2	100	3	50				5												
TDB0155A-CM	18	18	16	30	500	0	70	25"a	2	10	4	10i	12	2	100	3	50				5												
TDC0155-CM	22	22	20	40	670	-55	125	25"a	2	10	4	10i	12	2	100	3	50				5												
TDC0155A-CM	22	22	20	40	670	-55	125	25"a	2	10	4	10i	12	2	100	1	50				5												
TDE0155-CM	22	22	20	40	670	-25	85	25"a	2	10	4	10i	12	2	100	3	50				5												
TDB0156-CM	18	18	16	30	500	0	70	25"a	2	10	10	10i	12	2	100	10	50				12												
TDB0156-DP	18	18	16	30	500	0	70	25"a	2	10	10	10i	12	2	100	10	50				12												
TDB0156-A-CM	18	18	16	30	500	0	70	25"a	2	10	10	10i	12	2	100	10	50				12												
TDC0156-CM	22	22	20	40	670	-55	125	25"a	2	10	7	10i	12	2	100	3	50				12												
TDC0156-A-CM	22	22	20	40	670	-55	125	25"a	2	10	7	10i	12	2	100	1	50				12												
TDE0156-CM	22	22	20	40	670	-25	85	25"a	2	10	7	10i	12	2	100	3	50				12												

' : typical value
" : minimum value
! : maximum value

NOTES :

- (a) X 1000
- (g) free air : Tamb = 50°C (mounted on ceramic substrate : 4cm²)
- (h) on PC board: Tamb = 50°C
- (i) 10¹² Ω

TYPE	RATINGS (at operating temperature)							CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)																	
	V _{CC+}	V _{CC-}	V _I	V _{ID}	P _{tot}	T _{oper}		A _V at		I _{CC}	Z _I	V _{opp} at		CMR at			I _{IO}	I _{IB}	SR	at					
	V	V	V	V	mW	min	max	°dB	kΩ	V	mA	kΩ	V	kΩ	°SVR	V _{IO}	R _S	Ω	nA	nA	V/μs	kΩ	pF	V	
	max	max	max	max	max	min	max	typ	min	max	min	typ	max	min	typ	max	typ	max	typ	max	typ	max	typ	max	typ
TDB0157-CM	18	18	16	30	500	0	70	25 ^a	2	10	10	10	i	12	2	100	10	50							
TDB0157-DP	18	18	16	30	500	0	70	25 ^a	2	10	10	10	i	12	2	100	10	50							50
TDB0157A-CM	18	18	16	30	500	0	70	25 ^a	2	10	10	10	i	12	2	100	10	50							50
TDC0157-CM	22	22	20	40	670	-55	125	25 ^a	2	10	7	10	i	12	2	100	3	50							50
TDC0157A-CM	22	22	20	40	670	-55	125	25 ^a	2	10	7	10	i	12	2	100	1	50							50
TDE0157-CM	22	22	20	40	670	-25	85	25 ^a	2	10	7	10	i	12	2	100	3	50							50
TDB0158-CM	32	32	32	30	500	0	70	100 ^a	2	13,5	3			1,5	2	70	2	0							
TDB0158-DP	32	32	32	30	500	0	70	100 ^a	2	13,5	3			1,5	2	70	2	0							
TDC0158-CM	32	32	32	30	500	-55	125	100 ^a	2	13,5	3			1,5	2	85	2	0							
TDE0158-CM	32	32	32	30	500	-25	85	100 ^a	2	13,5	3			1,5	2	85	2	0							
TDE0158-DP	32	32	32	30	500	-25	85	100 ^a	2	13,5	3			1,5	2	85	2	0							
TDB0347-DP	18	18	15	30	500	0	70																		
TDB0353-CM	18	18	15	30	500	0	70																		
TDB0353-DP	18	18	15	30	500	0	70																		
TDC0714-CM	22	22	22	30	500	-55	125																		
TDB0791-DP	18	18	15	30	15 ^a	0	70	20 ^a	1		25	300	14	1	70 ^m	2	10 ^a	20	500						
TDB0791-EP/12	18	18	15	30	15 ^a	0	70	20 ^a	1		25	300	14	1	70 ^m	2	10 ^a	20	500						
TDB0791-EP/14	18	18	15	30	15 ^a	0	70	20 ^a	1		25	300	14	1	70 ^m	2	10 ^a	20	500						
TDB0791-KM	18	18	15	30	15 ^a	0	70	20 ^a	1		25	300	14	1	70 ^m	2	10 ^a	20	500						
TDB0791-SP	18	18	15	30	15 ^a	0	70	20 ^a	1		25	300	14	1	70 ^m	2	10 ^a	20	500						
TDC0791-KM	18	18	15	30	15 ^a	-55	125	50 ^a	1		25	300	14	1	70 ^m	1	10 ^a	20	500						
TDB2022-CM	15	15		8	500	0	70	1500	2		10					95	2,8	2 ^a	180	1550	100				
TDF2902-DP	13	13	26	26	500	-40	85	100 ^a	2		1,2			10 ^m	70	2	0								
TDF2902-FP	13	13	26	26	400	-40	85	100 ^a	2		1,2			10 ^m	70	2	0								
TDF2904-DP	13	13	26	26	500	-40	85	100 ^a	2	13,5	1,2		1,5		70	2	0								
TDB3403-DP	18	18		30	500	0	70	200 ^a	2	10	7	300	13,5	10 ^m	90	2	10 ^a					0,5			10
TDC3403-DP	18	18		30	500	-55	125																		
TDE3403-DP	18	18		30	500	-25	85																		
TDB4558-CM	18	18	15	30	680	0	70	200	2	10	5,6	300	13	2 ^m	90	2	10 ^a					1,6	2 ^m		
TDB4558-DP	18	18	15	30	500	0	70	200	2	10	5,6	300	13	2 ^m	90	2	10 ^a					1,6	2 ^m		
TDC4558-CM	22	22	15	30	680	-55	125																		
TEB1025-CM	15	15	8	5	500	0	70	5					2,5	2	80	2	0,5					160	2		
TEB1761-CM	Similar to TAA2761																								
TEB1761-DP	Similar to TAA2761A																								
TEC1761-CM	Similar to TAA2762																								
TEO1761-CM	Similar to TAA2765																								

! : typical value
" : minimum value
! : maximum value

NOTES : (a) x 1000
(i) 10¹² Ω

(page 147)

TYPE	RATINGS				CHARACTERISTICS (at $T_{amb}=25^{\circ}C$ unless otherwise stated)															
	V_{CC}	P_{tot}	T_{oper}		LUMINANCE				CHROMINANCE			VIDEO					at			
					$V_{I(pp)}$	Z_I	$V_{O(pp)}$	L_{mc}	$V_{I(pp)}$	Z_I	V_{OB}	V_{OD}	I_{DI}	V_{CM}	A_{VS}	A_{VC}	R_I	C_I	Z_O	f
	v	mW	$^{\circ}C$		$\frac{mA}{V}$	k	v		mV	k Ω	v	v	μA	v		db	k Ω	pF	Ω	kHz
max	max	min	max	typ	min	typ	min	typ	min	typ	typ	typ	typ	max	max	typ	typ	typ		
TBA510	13,2	550	-20	60					150	2	1									
TBA510Q	13,2	550	-20	60					150	2	1									
TBA970	15,5	750	-20	45		200		0,9						1,6 _a	2,4			12		470
TBA970Q	15,5	750	-20	45		200		0,9						1,6 _a	2,4			12		470
TDA2510	15	500	-25	60	0,1	2	3				0,5							500		
TDA2510Q	15	500	-25	60	0,1	2	3				0,5							500		
TDA2560	14		-25	70	*0,2 _b	0,075	3	80	*2,5 _c	(CONTRAST AND SATURATION CONTROL RANGE = 20 dB _{m(n)})										
TDA2560Q	14		-25	70	*0,2 _b	0,075	3	80	*2,5 _c	(CONTRAST AND SATURATION CONTROL RANGE = 20 dB _{m(n)})										

! : typical value
" : minimum value
! : maximum value

NOTES : (a) $V_{I_{max}}$ (positive video signal)
(b) $I_I = 0,2$ mA
(c) at nominal contrast and saturation

TYPE	RATINGS				CHARACTERISTICS (at Tamb=25°C unless otherwise stated)															
	V _{CC}	P _{tot}	Video DC V _O		(1) Neg. video DC V _O	Sync pulse level	tuner contr. curr. 10dB after	Comp ₂ video out. Level	V _{IF} at out. (4)	ΔG (5)	AGC Range	RF-ACC Voltage range		Max. differ. V _O (pp) 0dB(AGC) 30dB		IF gain change over RF-ACC range dB	Inter. mod. (3)	R _i Z _I	G _p	B (3dB)
			Neg	Pos								min	max	typ	typ					
	V	mW	V	V	V	V	mA	V	mV	%	dB	V	V	V	V	dB	dB	kΩ	dB	MHz
max	max	typ	typ	max	typ	typ	typ	max	typ	typ	min	max	typ	typ	typ	typ	typ	typ	typ	
TBA440N	15	700				0,2	15										55	1,8		7
TBA440P	15	700				0,2	15										55	1,8		7
TBA1440	15	700				0,2	15										55	1,8		7
TBA1440G	15					0,5	15										45	1,8		7
TBA1441	15					0,5	15										45	1,8		7
TDA440	15	700	5,6	5,5	2,15		4,5	3,2									40	1,4		10
TDA440S	15	800							15!									1,4		10
TDA1352A	18	625												16,8	8,4	10				
TDA1352B	18	625												16,8	8,4	10			52	52
TDA4400	15	820	5,5	5,6	2,15		15	3,3a	30	3	56						48	1,4*		10
TDA4410	15	820	5,5	5,6	2,15		15	3,3a	30	3	56						48	1,4*		10
TDA4420	15	1000	5,5	5,6	2,15		10	3,3a	30	3	60						50	1,4*		10
TDA4421	15	1000	5,5	5,6	2,15		10	3,3a	30	3	60						50	1,4*		10
TDA4422	15	1000	5,5	5,6	2,15		10	3,3a	30	3	60						50	1,4*		10
TDA4440	15	900	5,5	5,6	2,15		10	3,3a	30	3	60						50	1,4*		10
TDA4450	15	900	5,5	5,6	2,15		10	3,3a	30	3	60						50	1,4*		8
TDA5500	15				2,15		10	3,3a	30	3	60						50	1,4*		8
TDA5600	15					1,5	15		500								45	1,8	55	
TDA5610	15					1,9			900								45	1,8	55	7
TDA5611	15					1,9			900								45	1,8	55	7
TDA5800	16,5				5,3	2	4		10								45	1,8	55	7
TDA5820	16,5				5,3	2	4		10								45	1,8*	60	7
TDA5850	16,5	1	1	1	2	2			10								45	1,8*	60	7

* : typical value
" : minimum value
! : maximum value

NOTES : (1) peak black clamping level for negative video output DC.
(2) composite video output level
(3) suppression of sound carrier / colour subcarrier IP (10,7 MHz) with respect to colour carrier level
(4) max IF voltage level present at video output over the full AGC range
(5) ΔG of negative composite video output signal for full black to white swing.
(a) V_O = 5,6 V; pin 11

TV AMPLIFIERS (LUMINANCE, CHROMINANCE)

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS			CHARACTERISTICS (at Tamb=25°C unless otherwise stated)																				
	V _{CC}	I _{CC}	P _{tot}	CHROMINANCE				LUMINANCE				Contr. contr. range (1)	Sat. contr. range	Brightness control		Oscil. pull in range	Burst gate 1 °v	Burst V _O	Change in chroma out.	System switch signal				
				V _I	R _I	G _V	V _O	V _I	I _I	R _I	G			v	v									
	v	mA	mW	V	kΩ	typ	typ	V	V	mA	kΩ	dB	dB	dB	dB	Hz	μA/v	v	dB	v				
max	max	max	max	typ	typ	typ	max	typ	min	typ	max	max	min	max	typ	max	typ	typ	min					
TCA395	8,4'	60	625	1,2																				
TCA395Q	8,4'	60	625	1,2																				
TBA396		25	625		5"		3				100	0	50	50										
TBA396Q		25	625		5"		3				100	0	50	50										
TBA560B	13	30	510	0,12				2			1,5			20	20				1					
TBA560BQ	13	30	510	0,12				2			1,5			20	20				1					
TBA560C	12'	30'	510	0,08				1			1,5			20	20				1					
TBA560CQ	12'	30'	510	0,08				1			1,5			20	20				1					
TCA640	13,2		625	0,08	(PAL)			0,5	(burst blanking of chrominance signal = 40 dB)													1		
				0,4	(SECAM)			2	(chrominance blanking at field identification = 40 dB)													-		7
TCA660B	13,2	35	600						0,7	60			20	20	1	2								
TDA2150	13,2		800	0,08			0,53	3	1		10'				2	6								
TDA2151	15		800	0,08			0,5	3	1		12'		13		2	5,5								
TDA2510	15		500	0,1	2			0,5						50					*4	0,5				
TDA2510Q	15		500	0,1	2			0,5						50					*4	0,5				
TDA2560	14		930	0,08				2		0,2	0,15		20"	20	1	3								
TDA2560Q	14		930	0,08				2		0,2	0,15		20"	20	1	3								
TDA3560	13,2		1700	1,1				2	0,45	0,5			17'	50"			500	*0,75"						
TDA3570	14,4	43	750	0,15'					1'		1,5'	5	13'	40'	8	10	500							
TDA3950	8,7'	60	625	8	5			0,4									600	9		1,2				
TDA3950A	8,7'	60	625	8	5			0,4									600	9		1,2				

' : typical value
" : minimum value
! : maximum value

NOTES : (1) contrast control range

TYPE	RATINGS(at operating temperature)						CHARACTERISTICS(at Tamb=25°C, unless otherwise stated)														
	V _{CC}	P _{tot}	T _{oper}		T _{stg}		CHANNEL R-Y					CHANNEL B-Y					CHANNEL G-Y		V _B (2)	A _{CC} (3)	
			°C		°C		G	Z _I	Z _O	V _{IR} (1)	V _{ODC}	G	Z _I	Z _O	V _{IR} (1)	V _{ODC}	Z _O	V _{ODC}			
			max	max	min	max	min	max	typ	k Ω	Ω	V	V	typ	k Ω	Ω	V	V			Ω
TAA630S TAA630T (c)	13,2 13,2	550 550	-20 -20	60 60	-20 -20	125 125	6 6	0,8" 0,8"	100 100	1 1	7,4' 7,4'	(a)	0,8" 0,8"	100 100	1 1	7,4' 7,4'	100 100	7,4' 7,4'	0,9 0,9	0,3 0,3	
TBA520 TBA520Q	13,2 13,2	550 550	-20 -20	60 60	-55 -55	125 125	7 7	0,8 0,8	2700 2700	1 1	3,2' 3,2'		0,8 0,8	2700 2700	1 1	4' 4'	2700 2700	1,8' 1,8'			
TBA530 TBA530Q	13,2 13,2	400 400	-20 -20	60 60	-55 -55	125 125	100 100	60 60					100 100	60 60							
TBA540 TBA540Q	13,2 13,2	680 680	-20 -20	60 60	-55 -55	125 125													12' 12'	0,25 0,25	
TBA990 TBA990Q	13,2 13,2	300 300	-20 -20	60 60	-55 -55	125 125	3,8 3,8	800 800	3000 3000	1 1	1,6 1,6		800 800	3000 3000	1 1	2 2	3000 3000	0,9 0,9			
TCA650	13,2	510	-25	65	-25	125					1,21										1,62 (square wave input = 3'V)
TCA800	13,2		-20	55	-20	80	17,2	(b)			1		(b)		1						
TDA2520 TDA2520Q	14 14	600 600	-20 -20	60 60	-20 -20	125 125			250 250		2,4 2,4	(a) (a)		250 250		3 3	250 250	1,35 1,35	*0,5' *0,5'	*7' *7'	
TDA2521	14	600	-20	60	-20	125		0,8!	250		2,4	(a)	0,8!	250		3	250	1,35		*7'	
TDA2522 TDA2522Q	14 14	600 600	-20 -20	60 60	-20 -20	125 125			250 250	*0,5 *0,5	2,4 2,4	(a) (a)		250 250	*0,35 *0,35	3 3	250 250	1,35 1,35	5,6 5,6	6 6	
TDA2523 TDA2523Q	14 14	600 600	-20 -20	60 60	-20 -20	125 125			250 250	0,5 0,5	2,4 2,4	(a) (a)		250 250	*0,35 *0,35	3 3	250 250	1,35 1,35	5,6 5,6	*7' *7'	
TDA2524 TDA2530 TDA2530Q TDA2532 TDA2532Q	14 15 15 13,2 13,2	800 1000 1000 1100 1100	-20 -20 -20 -25 -25	70 60 60 60 60	-20 -20 -20 -25 -25	125 125 125 125 125	2,57	1	250		1,5		1	250		1,9	250	0,9	4,0 6,5 ^d 6,5 ^d 7,5 ^d 7,5 ^d	5,5 5,5 ^e 5,5 ^e 6,5 ^e 6,5 ^e	

' : typical value
" : minimum value
! : maximum value

NOTES : (1) V : chrominance signal (R-Y) (B-Y)
(2) Colour burst
(3) ACC : reference output voltage
(a) $\frac{B-Y}{R-Y} = 1,78$
(b) R_I = 1 kΩ ; C_I = 10 pF

(c) TAA630T similar to TAA630S but resistor from pin 3 to the ground
(d) Input level voltage for clamping : on level
(e) " " " " " : off level

TV-LINE CIRCUITS

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS			CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)																Pos. going sync pulse	Neg. going noise pulse
	V _{CC}	P _{tot}	T _{oper}	I _o °s _{am} Volt.	DC Control Voltage °V REF		Comp. sync volt. (1)	Noise pulse I (°gate I _I)		Video V _I 2 °HDP	Flyback signal V _I I _I		Line driver V _O I _O		Comp. sync V _O °V _O	Comp. video out. (1)	Discr V _O (pp)				
	v	mW	°C	mA °v	v		v	neg. µA	pos. µA	v	v	mA	v	mA	v	v	v				
	max	max	min max	max	min max	max	max	max	max	max	typ	typ	typ	max	typ	typ	max				
TBA720A	12'	280	0	60	60	2,4	5,3							*10	*8						
TBA720AQ	12'	280	0	60	60	2,4	5,3							*10	*8						
TBA920	12'	600	-20	60	36"	0,8	5,5	10'		*30	3'	1	1	10	20	10					
TBA920Q	12'	600	-20	60	36"	0,8	5,5	10'		*30	3'	1	1	10	20	10					
TBA920S																					
TDA1180F	15	1000	-40	150	0,5											1,4!	10				
TDA1180P	15	1000	-40	150	0,5											1,4!	10				
TDA1950	14			60	0,55'	4	8	8		1'	10,5	0,02									
TDA1950F	14			60	0,55'	4	8	8		1'	10,5	0,02									
TDA2140	15	800	0	70		*0,9'					7,5!										
TDA2591	13,2	800	-20	60	*0,8	3,8	8,2	4			1,4	1	10,5								
TDA2591Q	13,2	800	-20	60	*0,8	3,8	8,2	4			1,4	1	10,5								
TDA2591S	13,2	800	-20	60	*0,8	3,8	8,2	4			1,4	1	10,5								
TDA2592	13,2	800	-20	60	*0,8	3,8	8,2	4			1,4	1	10,5								
TDA2593	13,2	800	-20	70	*0,8	5,4	7,6	4			1,4!	1	10,5								
TDA2594	Similar to TDA2593 but additionally TV transmitter identification.																				
TDA9400	14		0	60				9"			3		2!								
TDA9403	14		0	60				9"			3		2!								
TDA9500	14		0	60				9"			3		2!								
TDA9503	14		0	60				9"			3		2!								
TDA9513	14		0	60				9"			3		2!								
TEA1034	14	800	-20	60	100					*20	0,8	1					10				

' : typical value
" : minimum value
! : maximum value

NOTES : (1) peak white to peak
(2) Horizontal drive pulse

TV SIGNAL PROCESSING CIRCUITS

TYPE	RATINGS			CHARACTERISTICS (at Tamb=25°C unless otherwise stated)																
	V _{CC}	P _{tot}	I _{CC}	Video V _I (pp)	Video V _O (pp)	G _V	B (3dB)	Black level V _O	AGC voltage °current IF AMP.		AGC voltage °current for TUNER		Horiz. sync. pulse V _O	Vert. sync. pulse V _O	Horizontal phase detector V _O range		f	AFC out contr. Volt.	Intermod. products blue color bar	
	V	mW	mA	V	V	dB	MHz	V	V	°mA	V	°mA	V	V	V		MHz	V	1 MHz dB	3,3MHz dB
	max	max	max	typ	typ	typ	typ	typ	min	max	min	max	typ	typ	min	max	typ	max	typ	typ
TBA311	16	500		2	6	9,5	5"	5	0	7,5	0	6,5	10	9,5						
TBA550	12	400	43	2	4,2		5"		0	8	0	7		10"						
TBA550Q	12	400	43	2	4,2		5"		0	8	0	7		10"						
TBA890	12	700		2,7	6	7	5"		1	12	0,3	12	10!	11	2	10				
TBA890Q	12	700		2,7	6	7	5"		1	12	0,3	12	10!	11	2	10				
TCA270	12	1000	47	3			5		*10		*10						38,9	10	-60	-67
TCA270Q	12	1000	47	3			5		*10		*10						38,9	10	-60	-67
TCA270S	12	1000	47	3			5		*10		*10						38,9	10	-60	-67
TCA270SQ	12	1000	47	3			5		*10		*10						38,9	10	-60	-67

' : typical value
" : minimum value
! : maximum value

VOLTAGE REGULATORS

ELECTRICAL DATA
PARAMETRES ELECTRIQUE
ELEKTRISCHE DATEN

TYPE	RATINGS(at operating temperature)						CHARACTERISTICS(at Tamb=25°C, unless otherwise stated)													
	V_I	P_{tot}	I_O	V_O	T_{stg} T_{oper}		V_I-V_O			$\frac{\Delta V_O}{V_O}$ at		$\frac{\Delta V_O}{V_O}$ at		at		at		at		
	V	W	A	V	°C		V			K_{VI}	V	$\frac{\Delta V_O}{V_O}$	I_O	R_{VF}	f	I_{IB}	V	K_{VH}	V_{NO}	f
	max	max	max	max	min	max	min	typ	max	max	max	max	max	typ		max		max	typ	max
TBA281	40	0,8	0,15	37	0	70	3		38	0,1	15	0,6%	0,5	74	50"	4	30	0,1%	20	10
TBA435	20	0,75	0,14 ^(a)	8,9 ^d	0	70				0,6	20	1%	0,1	57	100	16	20		100	100
TBA625A	20	0,75	0,14 ^b	5,25 ^d	0	70				1	20	1%	0,1	60	100	16	20		70	100
TBA625B	27	0,75	0,14 ^c	12,6 ^e	0	70				0,5	27	1%	0,1	54	100	18	27		150	100
TBA625C	27	0,75	0,14 ^c	15,7 ^e	0	70				0,5	27	1%	0,1	51	100	18	27		200	100
TCA700Y	16		0,22	10	*-40	*125														
TDA1405	20	1,25	1,2	5,25	0	70				23mV	12	1%	0,6	60 g	100	9	20	23	70	100 f
TDA1412	27	1,25	1	12,6	0	70				33mV	21	1%	0,5	60 g	100	10	27	33	150	100 f
TDA1415	27	1,25	0,9	15,75	0	70				33mV	24	1%	0,45	56 g	100	10	27	33	180	100 f
TDA1418	30	1,25	0,5 ^f	18,9	-55	125				*35	30	1*	0,3	56 g	100	10	30		200	100 f
TDA1424	35	1,25	0,5 ^f	18,9	-55	125				*35	30	1*	0,3	56 g	100	10	30		200	100 f

' : typical value
" : minimum value
! : maximum value

NOTES : (a) at $V_I = 15$ V
(b) at $V_I = 12$ V
(c) at $V_I = 24$ V
(d) at $V_I = 20$ V
(e) at $V_I = 27$ V
(f) at $B^* = 150$ kHz
(g) supply voltage rejection

TYPE	RATINGS(at operating temperature)					CHARACTERISTICS(at Tamb=25°C,unless otherwise stated)													
	v_S	P_{tot}	I_O	V_O	T_{oper}	v_O			Δv_O at		Δv_O at		at		at		K_{VH}	V_{NO}	at
	V_I			V	$^{\circ}C$	V_I-V_O			K_{VI}	V_I	K_{VO}	I_O	R_{VF}	f	I_{TB}	V_I	mV	μV	f
	V	W	A	V	$^{\circ}C$	V			$\frac{mV}{\%}$	V	$\frac{\%}{mV}$	A	dB	Hz	mA	V	mV	μV	kHz
	max	max	max	max	min	max	min	typ	max	max	max	max	typ		max		max	typ	max
TDB0117-CM	40	2	0,5		0	125	3		40	0,04		25	0,5	65	120			1	
TDB0117-KM	40	20	1,5		0	125	3		40	0,04		25	1,5	65	120			1	
TDB0117-SP(=T)	40	15	1,5		0	125	3		40	0,04		25	1,5	65	120			1	
TDC0117-CM	40	2	0,5		-55	150	3		40	0,02		15	0,5	65	120			1	
TDC0117-KM	40	20	1,5		-55	150	3		40	0,02		15	1,5	65	120			1	
TDE0117-CM	40	2	0,5		-25	150	3		40	0,02		15	0,5	65	120			1	
TDE0117-KM	40	20	1,5		-25	150	3		40	0,02		15	1,5	65	120			1	
TDB0123-KM	20	30	3	5,3	0	125	4,8	*5	5,2*	*25	15	100	3			20	15!	35	40
TDC0123-KM	20	30	3	5,3	-55	150	4,7	*5	5,3*	*25	15	100	3			20	15!	35	40
TDE0123-KM	20	30	3	5,3	-25	150	4,7	*5	5,3*	*25	15	100	3			20	15!	35	40
TDB0723	*25		0,15	37	0	70	3		38	*0,1	15	0,2	0,05	74	50	4	30	0,1 ^h	20
TDB0723A	*25		0,15	37	0	70	3		38	*0,1	15	0,2	0,05	74	50	4	30	0,1 ^h	20
TDC0723	*25		0,15	37	-55	125	3		38	*0,1	15	0,15	0,05	74	50	4	30	0,1 ^h	20
TDB1146-CM	80	1	0,15		0	70	3		78	60dB'	40	0,03%	0,05	74	10!	4	30		20
TDB1146-DP	80	1	0,15		0	70	3		78	60dB'	40	0,03%	0,05	74	10!	4	30		20
TDC1146-CM	80	1	0,15		-55	125	3		78	60dB'	40	0,03%	0,05	74	10!	4	30		20
TDD1605S	35				-25	70	4,8	5	5,2	*100	25	100	0,5	80	100	6			
TDD1606S	35				-25	70	5,75	6	6,25	*100	25	120	0,5	80	100	6			
TDD1608S	35				-25	70	7,7	8	8,3	*100	25	160	0,5	80	100	6			
TDD1610S	35				-25	70	9,6	10	10,4	*100	25	200	0,5	80	100	6			
TDD1612S	35				-25	70	11,5	12	12,5	*100	30	240	0,5	80	100	6			
TDD1615S	35				-25	70	14,4	15	15,6	*100	30	300	0,5	70	100	6			
TDD1618S	40				-25	70	17,3	18	18,7	*100	33	400	0,5	70	100	6			
TDD1624S	40				-25	70	23	24	25	*100	38	480	0,5	70	100	6			
TDB2900-EP	40	(i)			0	70	-30		-2,2	1		1%	0,5	65			1	125	100
TDB2905-KM	25	(i)		5,25	0	70			25	*50	25	100	1,5	70	100	2	25	50	150
TDB2905-SP	25	(i)		5,25	0	70			25	*50	25	100	1,5	70	100	2	25	50	150
TDC2905-KM	25	(i)		5,25	-55	125			25	*50	25	100	1,5	70	100	2	25	50	150
TDB2905A-KM	25	(i)		5,45	0	70			25	*50	25	100	1,5	70	100	2	25	50	150
TDB2905A-SP	25	(i)		5,45	0	70			25	*50	25	100	1,5	70	100	2	25	50	150
TDC2905A-KM	25	(i)		5,45	-55	125			25	*50	25	100	1,5	70	100	2	25	50	150
TDB2912-KM	35	(i)		12,6	0	70			30	*20	32	80	1	70	100	4	32	120	400
TDB2912-SP	35	(i)		12,6	0	70			30	*20	32	80	1	70	100	4	32	120	400
TDC2912-KM	35	(i)		12,6	-55	125			30	*20	32	80	1	70	100	4	32	120	400
TDB2915-KM	40	(i)		15,6	0	70			30	*20	35	80	1	70	100	4	35	150	400
TDB2915-SP	40	(i)		15,6	0	70			30	*20	35	80	1	70	100	4	35	150	400
TDC2915-KM	40	(i)		15,6	-55	125			30	*20	35	80	1	70	100	4	35	150	400

: typical value NOTES : (h) in % 1000 h
: minimum value (i) internally limited.
: maximum value

VOLTAGE REGULATORS

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS(at operating temperature)					CHARACTERISTICS(at Tamb=25°C, unless otherwise stated)														
	V_I	P_{tot}	I_O	V_O	T_{oper}	$V_I - V_O$			ΔV_O	at		at		at		at		K_{VH}	V_{NO}	f
	v	w	A	v	°C	v			%	v	mV	A	dB	Hz	mA	v	mV	μ V	kHz	
	max	max	max	max	min	max	min	typ	max	max	max	max	typ	max	max	typ	max	typ	max	
TDB7805	35		2,2	5,2	0	85				*100	25	100	1,5	78	120	8	10	20	40	100
TDB7805T	35		2,2	5,2	0	85				*100	25	100	1,5	78	120	8	10	20	40	100
TDC7805	35		2,2	5,2	-55	125				*50	25	50	1,5	78	120	6	10	20	40	100
TDB7806	35		2,2	6,25	0	85				*120	25	120	1,5	75	120	8	11	24	45	100
TDB7806T	35		2,2	6,25	0	85				*120	25	120	1,5	75	120	8	11	24	45	100
TDC7806	35		2,2	6,25	-55	125				*60	25	60	1,5	75	120	6	11	24	45	100
TDB7808	35		2,2	8,3	0	85				*160	25	160	1,5	72	120	8	14	32	52	100
TDB7808T	35		2,2	8,3	0	85				*160	25	160	1,5	72	120	8	14	32	52	100
TDC7808	35		2,2	8,3	-55	125				*80	25	80	1,5	72	120	6	14	32	52	100
TDB7812	35		2,2	12,5	0	85				*240	30	240	1,5	71	120	8	19	48	75	100
TDB7812T	35		2,2	12,5	0	85				*240	30	240	1,5	71	120	8	19	48	75	100
TDC7812	35		2,2	12,5	-55	125				*120	30	120	1,5	71	120	6	19	48	75	100
TDB7815	35		2,1	15,6	0	85				*300	30	300	1,5	70	120	8	23	60	90	100
TDB7815T	35		2,1	15,6	0	85				*300	30	300	1,5	70	120	8	23	60	90	100
TDC7815	35		2,1	15,6	-55	125				*150	30	150	1,5	70	120	6	23	60	90	100
TDB7818	35		2,1	18,7	0	85				*360	33	360	1,5	69	120	8	27	72	110	100
TDB7818T	35		2,1	18,7	0	85				*360	33	360	1,5	69	120	8	27	72	110	100
TDC7818	35		2,1	18,7	-55	125				*180	33	180	1,5	69	120	6	27	72	110	100
TDB7824	40		2,1	25	0	85				*480	38	480	1,5	66	120	8	33	96	170	100
TDB7824T	40		2,1	25	0	85				*480	38	480	1,5	66	120	8	33	96	170	100
TDC7824	40		2,1	25	-55	125				*240	38	240	1,5	66	120	6	33	96	170	100

* : typical value
" : minimum value
! : maximum value

VOLTAGE STABILIZERS

TYPE	RATINGS(at operating temperature)					CHARACTERISTICS(at Tamb=25°C, unless otherwise stated)											NOTES		
	$^{\circ}V_{I_{st}}$	I_{Z}	I_{CC}	V_{O}	$^{\circ}T_{stg}$ T_{oper}	V_Z range			r_z	at		at		at		at			
	V	mA	mA	V	$^{\circ}C$	V			Ω	mA	kHz	mA	Ω	Hz	mV/ $^{\circ}C$	mA			
	max	max	max	max	min	max	min	typ	max	max	max	max	typ		max				
TAA550	35	15	5		-20	150	30	33	35										
TAA550A	32	15			-20	150	30	31	32	25	5	1	0,5	10	1000	1,55	5	RED YELLOW GREEN	
TAA550B	34	15			-20	150	32	33	34	25	5	1	0,5	10	1000	1,6	5		
TAA550C	36	15			-20	150	34	35	36	25	5	1	0,5	10	1000	1,6	5		
TAA550K	35	15			-20	150	30	33	35					12			5		
TDA1057	35	15	5		-20	150	30	33	35	25	5	1	0,5	10	1000	1,55	5		

' : typical value
 " : minimum value
 ! : maximum value

VOLTAGE COMPARATORS

ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS (at operating temperature range)									CHARACTERISTICS (at Tamb=25°C, unless otherwise stated)										
	(1) V _{CC+} V _{CC-}		V _{ID}	V _I	T _{oper}		T _{stg}		P _{tot}	I _{IO}	V _{IO}	αV _{IO}	αI _{IO}	I _{IB}	I _{CC+}	I _{CC-}	V _{OH}	V _{OL}	t _R	
	V	V	V	V	°C	°C	°C	°C	mW	µA	mV	µV/°C	nA/°C	µA	mA	mA	V	V	ns	
	max	max	max	max	min	max	min	max	max	typ	typ	max	max	max	max	max	max	max	max	typ
TDB0111-CM	18	18	30	15	0	70	-65	150	500											
TDB0111-DP	18	18	30	15	0	70	-65	150	500											
TDC0111-CM	18	18	30	15	-55	125	-65	150	500											
TDE0111-CM	18	18	30	15	-25	85	-65	150	500											
TDB0119-CM	18	25	5	15	0	70	-65	150	500	80nA	2			1	8	3		1,5	80	
TDB0119-DP	18	25	5	15	0	70	-65	150	500	80nA	2			1	8	3		1,5	80	
TDB0119-FP	18	25	5	15	0	70	-65	150	500	80nA	2			1	8	3		1,5	80	
TDC0119-CM	18	25	5	15	-55	125	-65	150	500	30nA	0,7			0,5	11,5	4,5		1,5	80	
TDC0119-DC	18	25	5	15	-55	125	-65	150	500	30nA	0,7			0,5	11,5	4,5		1,5	80	
TDE0119-CM	18	25	5	15	-25	85	-65	150	500	30nA	0,7			0,5	11,5	4,5		1,5	80	
TDE0119-DP	18	25	5	15	-25	85	-65	150	500	30nA	0,7			0,5	11,5	4,5		1,5	80	
TDB0139-DP	18	18	36	36	0	70	-65	150	570	5nA	2			0,25	2	2		0,4	1300	
TDB0139A~DP	18	18	36	36	0	70	-65	150	570	5nA	1			0,25	2	2		0,4	1300	
TDC0139-DP/DC	18	18	36	36	-55	125	-65	150	570	3nA	2			0,25	2	2		0,4	1300	
TDC0139A~DP	18	18	36	36	-55	125	-65	150	570	3nA	1			0,25	2	2		0,4	1300	
TDE0139-DP	18	18	36	36	-25	85	-65	150	570	5nA	2			0,25	2	2		0,4	1300	
TDB0453A	35	35			0	70	-55	125		50nA	2	6	0,3	0,15	0,3	0,6	29,9"	0,3		
TDF2901	18	18	36	36	-40	85	-65	150	570	5nA	2			0,25	2	2		400	1,3µs	
TDF3302	14	14	36	28	-40	85	-65	150	570	3nA	3			0,5	2	2		500	1,3µs	
TE61028	7	64	64	64	0	70	-55	150	500	0,1	20			0,4	4	3	2,4"	0,4	100µs	

' : typical value **NOTES :** (1) V_{CC+} = ground to positive supply voltage
 " : minimum value V_{CC-} = ground to negative supply voltage
 ! : maximum value

TRANSISTOR ARRAYS

TYPE	RATINGS							TRANSISTOR				CHARACTERISTICS (at Tamb = 25°C)								
	V _{CBO}	V _{CEO}	V _{EBO}	V _{CS}	I _C	I _B	P _{tot}	T _j	T _{oper}	sub- strate connec- tion	V _{CEsat}	I _{CBO}	I _{CEO}	(i) t _{on}	(1) t _{off}	at		f _{MAX}		
	V	V	V	V	mA	mA	mW	°C	°C		V	µA	µA	ns	ns	V _{CE}	I _C			
	max	max	max	max	max	max	max	max	min	max		max	max	max	typ	typ	min		typ	
TCA671	50	42	6	80	200	10	300	150	-40	125	pin3	0,35	1	10	85	480	100	3	1	550
TCA871	35	32	6	80	200	10	300	150	-40	125	pin3	0,35	10	100	85	480	100	3	1	550
TCA971	50	42	6	80	200	10	300	150	-40	125	pin13	0,35	1	10	85	480	100	3	1	550
TCA991	35	32	6	80	200	10	300	150	-40	125	pin13	0,35	10	100	85	480	100	3	1	550
TCA991K	35	32	6	80	200	10	300	150	-40	125	pin13	0,35	10	100	85	480	100	3	1	550

	RATINGS										CHARACTERISTICS (at Tamb = 25°C)									
	V _{CBO}	V _{CEO}	V _{EBO}	I _O (DC)	I _F D ₁	I _F D ₂	P _{tot}	T _j	T _{oper} T _{stg}	I _D	V _{CEsat}	V _{BE} N	V _{RE} P	h _{FE} N	h _{FE} P	V _F D ₁	V _F D ₂	f _{cutoff}		
	V	V	V	A	A	A	W	°C	°C	mA	V	V	V			V	V	MHz	MHz	
	max	max	max	max	max	max	max	max	min	max	typ	max	typ	typ	typ	typ	typ	min	min	
TDA1410AH	50	36		3	0,3	3	30	150	-40	150	20	2,3	2	-0,9	5000	2500	1,5	5	10	5
TDA1410AV	50	36		3	0,3	3	30	150	-40	150	20	2,3	2	-0,9	5000	2500	1,5	5	10	5
TDA1420AH	55	44		3	0,3	3	30	150	-40	150	20	2,7	2,5	-1,2	2500	1000	1,5	5	10	5
TDA1420AV	50	44		3	0,3	3	30	150	-40	150	20	2,7	2,5	-1,2	2500	1000	1,5	5	10	5
TDA1420LH	50	40		3	0,3	3	30	150	-40	150	20	1,8	2,5	-1,2	2000"	800"	1,5	5	10	5
TDA1420LV	50	36		3	0,3	3	30	150	-40	150	20	1,8	2,5	-1,2	2000"	800"	1,5	5	10	5

	RATINGS										CHARACTERISTICS (at Tamb = 25°C)									
	V _I	V _{CEO}	V _{EBO}	V _{CS}	I _C	I _B	P _{tot}	T _j	T _{oper} T _{stg}	I _O (2)	at			t _{PLH}	t _{PHL}	at			C _I	
	V	V	V	V	mA	mA	mW	°C	°C	µA	V _{CEsat}	I _C	I _B	µs	µs	V _{CE}	I _C			
	max	max	max	max	max	max	max	max	min	max	max	max	max	max	max	min			max	
TDA3081		35	6	50	100	20	750	125	-50	125	0,4	5	0,5							
TDA3082		35	6	50	100	20	750	125	-50	125	0,4	5	0,5							
TDA3083		15	5	20	100	20	750	125	-65	150	0,7	50	5							
TDA3083D		15	5	20	100	20	750	125	-65	150	0,7	50	5							
TDA3310			20		50		500	150	-40	150	0,3'	10	1				300	5	0,1	
TEB1411-DG	30	50			500	25		0	85		1,3	200	0,35	1	1		*1000	2	350	30
TEB1411-DP	30	50			500	25		0	85		1,3	200	0,35	1	1		*1000	2	350	30
TEB1412-DG	30	50			500	25		0	85		1,3	200	0,35	1	1					30
TEB1412-DP	30	50			500	25		0	85		1,3	200	0,35	1	1					30
TEB1413-DG	30	50			500	25		0	85		1,3	200	0,35	1	1					30
TEB1413-DP	30	50			500	25		0	85		1,3	200	0,35	1	1					30
TEB1416-DG	30	50			500	25		0	85		1,3	200	0,35	1	1					30
TEB1416-DP	30	50			500	25		0	85		1,3	200	0,35	1	1					30

': typical value
": minimum value
! : maximum value

NOTES : (1) I_C = I_{B1} = -I_{B2} ≈ 10 : 1 : 1 mA; R₁ = R₂ = 5 kΩ ; V_{BB} = 5,5 V ; R_L = 990 Ω
(2) Output leakage current.

MOTOR SPEED REGULATORS

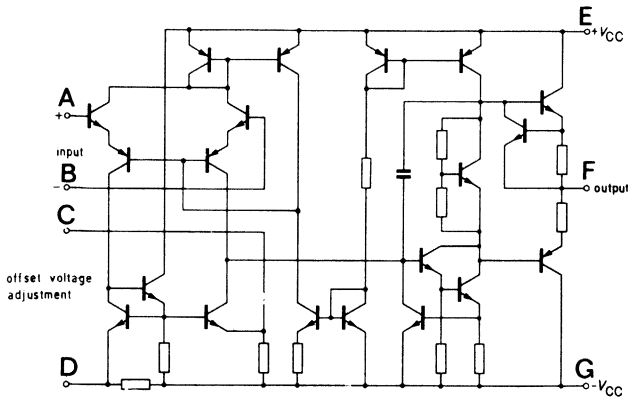
ELECTRICAL DATA
PARAMETRES ELECTRIQUES
ELEKTRISCHE DATEN

TYPE	RATINGS						CHARACTERISTICS (at $T_{amb}=25^{\circ}C$)												
	V_{CC}	I_O	P_{tot}	at T_{amb}		T_{oper}	V_{REF}	V_O	I_{start}	at		quiesc.	I_{olim}	at			at		I_{CC}
	V	mA	W	$^{\circ}C$	$^{\circ}C$	V	V	mA	mA	V	mA	mA	%	mA	V	%/mA	mA	V	mA
	max	max	max	min	max	typ	typ	typ			typ	typ	typ		typ			typ	
TCA900	14		0,8	70	-55	150	2,6	3,6		70	5,5	2,6	400	0,1	70	5,5	0,005	40	5,5
TCA910	14		0,8	70	-55	150	2,6	5,6 a		70	10	2,6	400	0,1	70	10	0,005	40	5,5
TCA955	16	50			-55	150	3,2	(b)					*15!						10
TDA1003A	18	1000			-20	150		0,9	1000!	600	9								1,8
TDA1006A	24	40			-25	150		0,9		600	14		200						
TDA1041	18	1000	1,4			125	1,5		850		12			0,3					
TDA1059B	16				-55	125	1,3	1,8 c				2,3	600	0	50	3,3"	19	20"	9
TDA1059C	16				-55	125	1,1	1 c				3	600	0,13	50	2,5	23	20"	9
TDA1085A	17	200	0,625	25	-55	125	13,5!												
TDA1151	20		0,8	70	-40	150	1,2		0,8"		5	1,7		0,45	100	6-18	0,005	25-400	6
TDA1151-SP/2	20	1200	1	70	-55	150	1,2		1,5		5	1,7		0,45	100	6-18	0,005	25-400	6
TDA7270S	20	2000	1	80	-40	150	1,25	1000"		100	14	5	150"	0,1	100	8-18	0,01	50-400	14
TDA7770	20		1	80	-40	150	1,3	1000"			6,2	13		0,42	100	6-18	0,005	25-400	12
TDE1081	24		1,4	25	-65	150	1,32	800!			14	2,95	500						

' : typical value
" : minimum value
! : maximum value

NOTES : (a) at $V_{CC} = 9 V$
(b) $V_{CC} - 1 V$
(c) drop out voltage

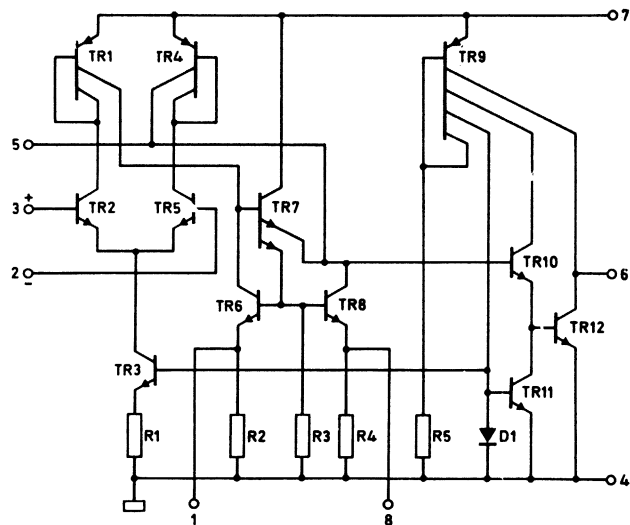
CD101A/B/C



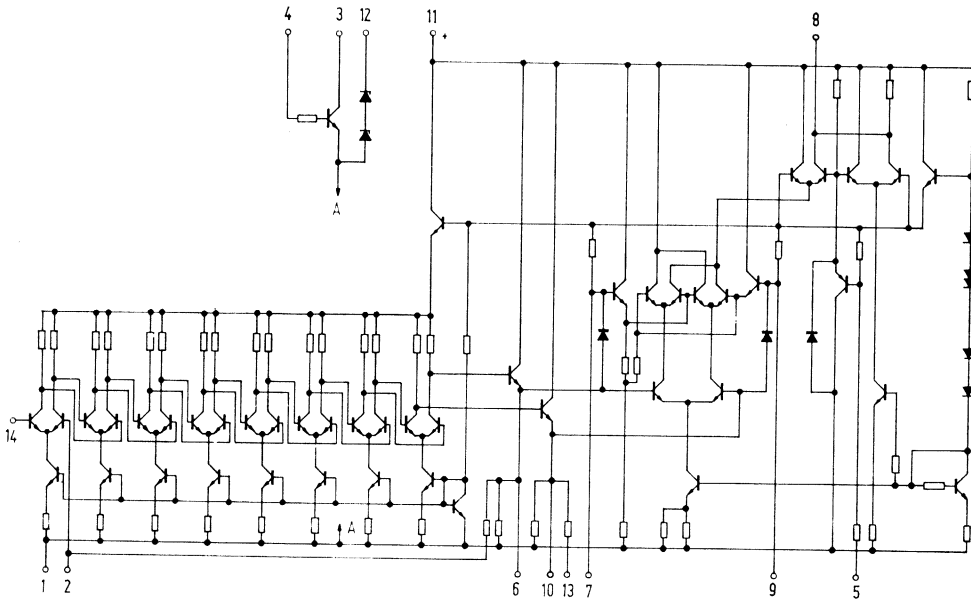
	A	B	C	D	E	F	G
CD 101A	3	2	5	1	7	6	4
CD 101B	5	4	9	3	11	10	6
CD 101C	3	2	5	1	8	6	4

CD103

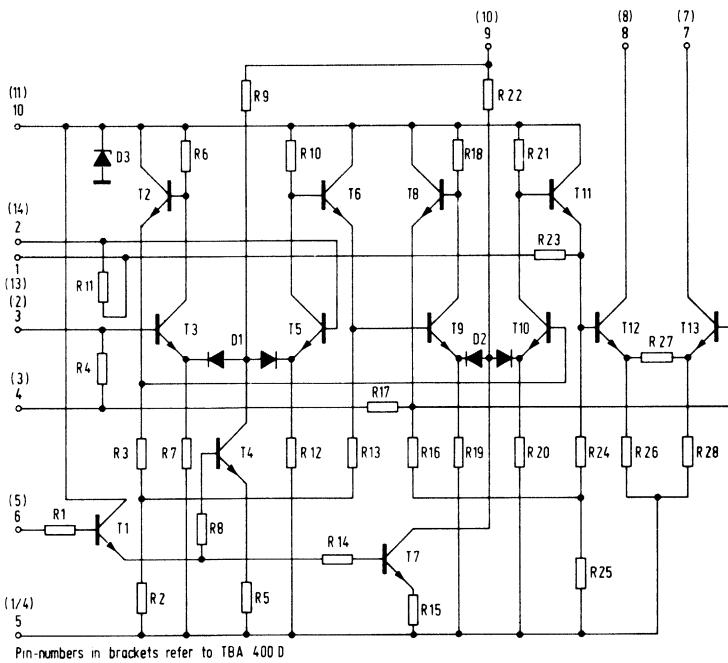
1. Balance
2. Inverting input
3. Non-inverting input
4. Negative supply (V_N)
5. Frequency compensation
6. Output
7. Positive supply (V_P)
8. Balance



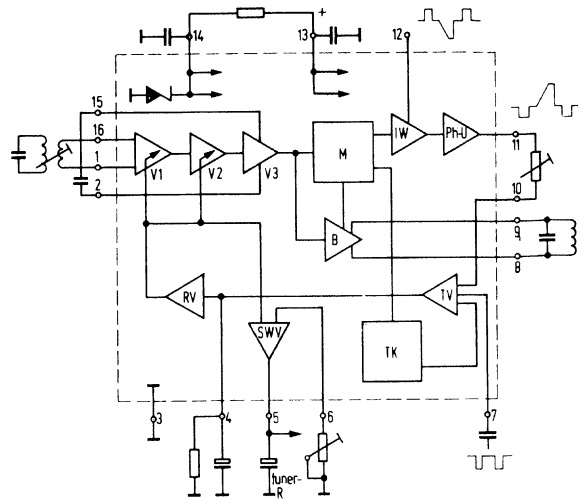
CD110



CD111

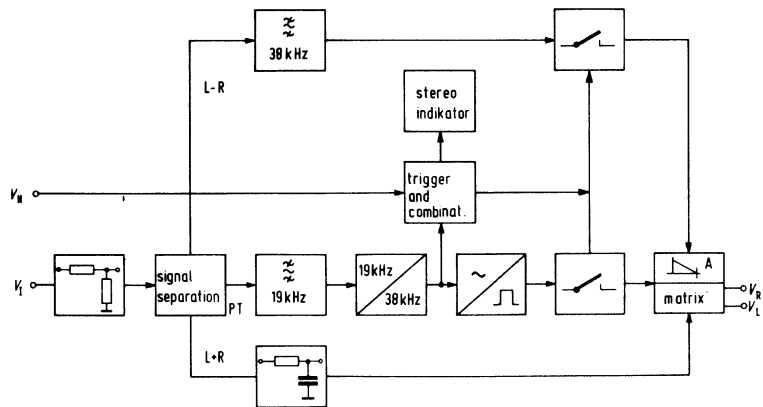


CD112

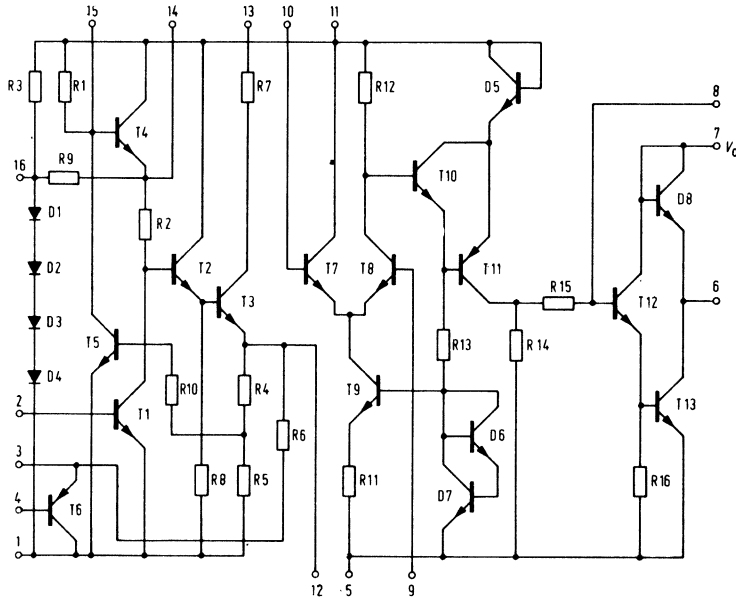


- V1, V2 IF regulating stages
- V3 IF amplifier stage
- M Mixer
- IW Impedance buffer
- Ph-U Phase inverter
- B Limiter-amplifier
- RV Regulating voltage amplifier
- SWV Threshold-amplifier
- TK Temperature compensation
- TV Clock amplifier

CD113

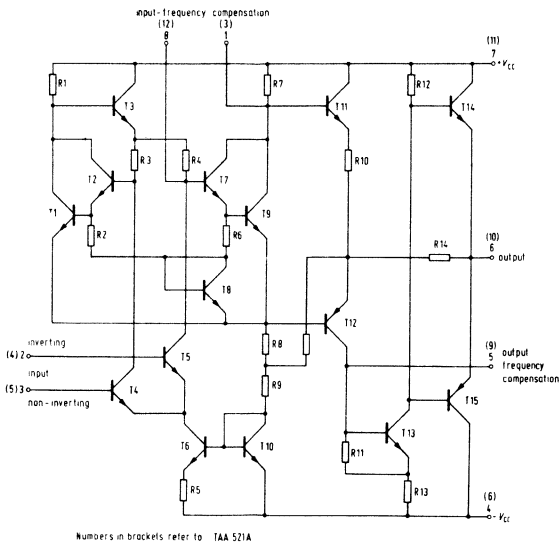


CD 114



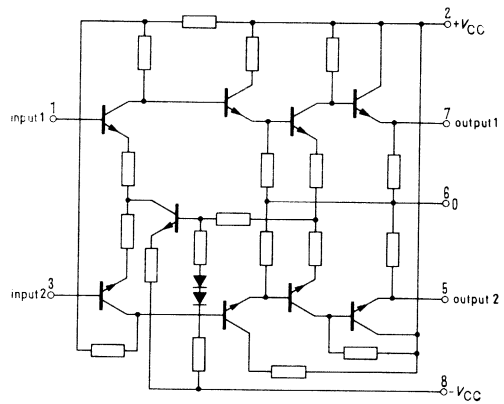
If the AF-portion is used separately, pin 5 should be connected to pin 1.

CD 115

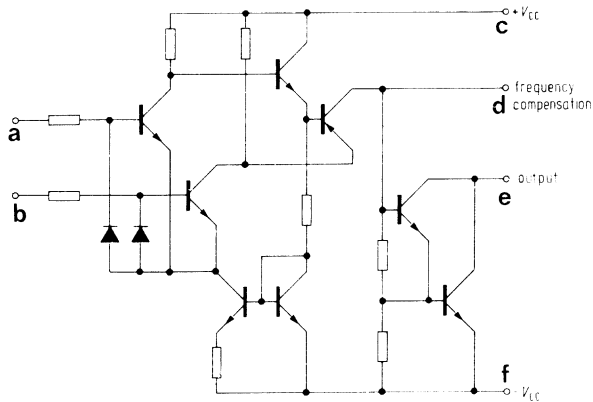


Numbers in brackets refer to TAA 521A

CD 116

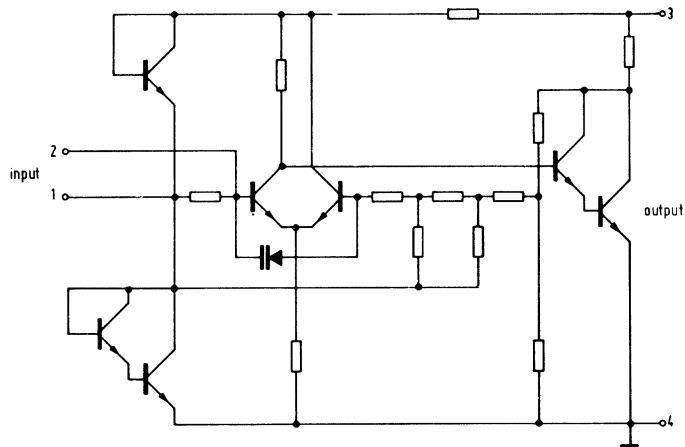


CD117A/B/C

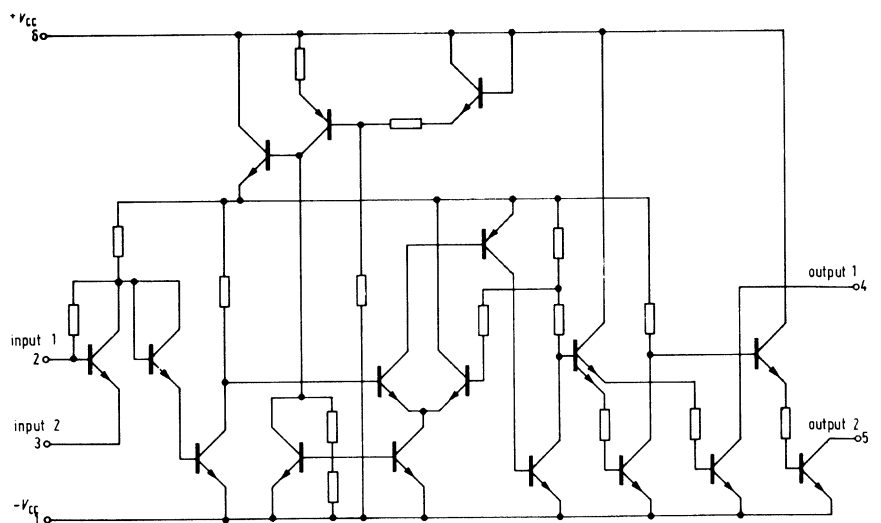


	a	b	c	d	e	f
CD117A	4	3	2	8	7	6
CD117B	3	2	1	6	5	4
CD117C	2	1	6	5	4	3

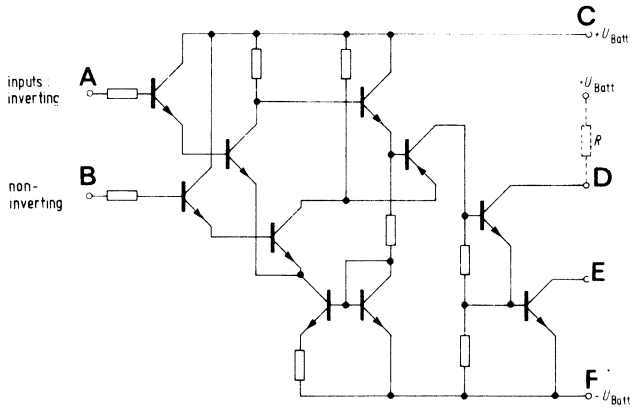
CD118



CD119

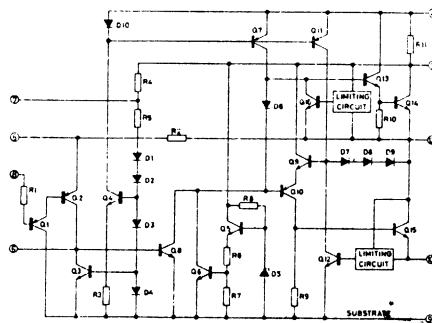


CD120A·B·C

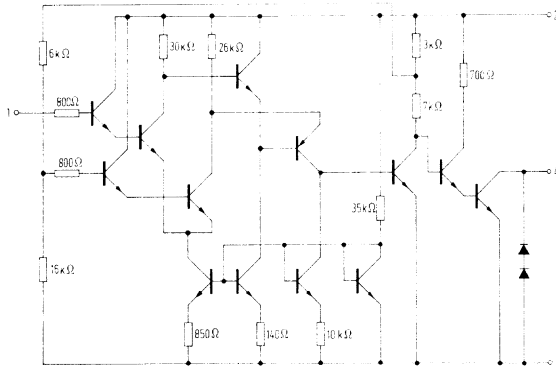


	A	B	C	D	E	F
CD120A	4	3	2	8	7	6
CD120B	3	2	1	6	5	4
CD120C	2	1	6	5	4	3

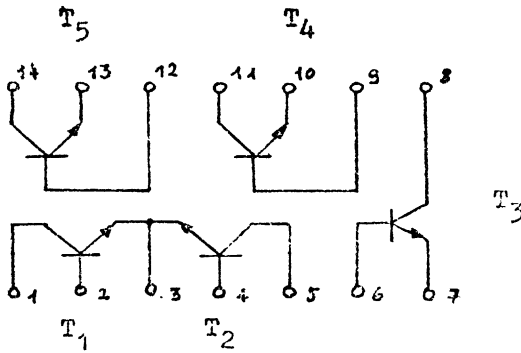
CD122



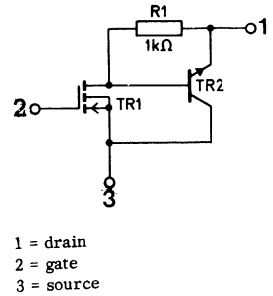
CD123



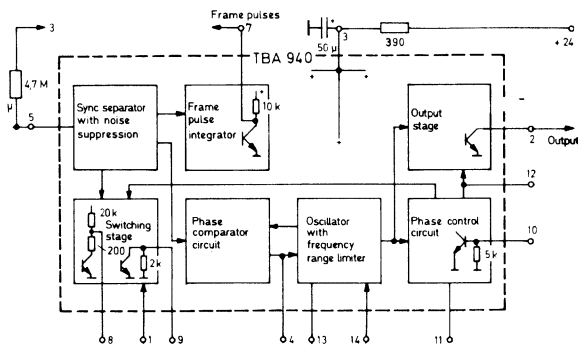
CD124



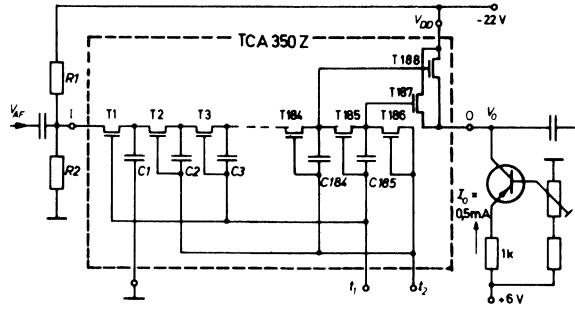
CD127



CD130



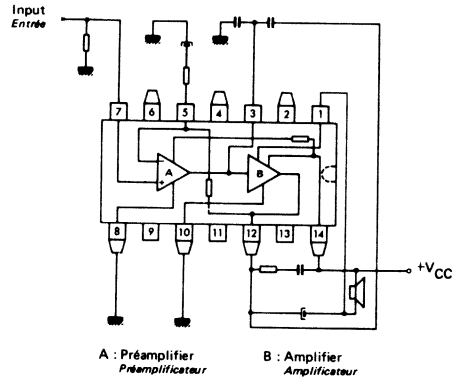
CD132



Pin Connections

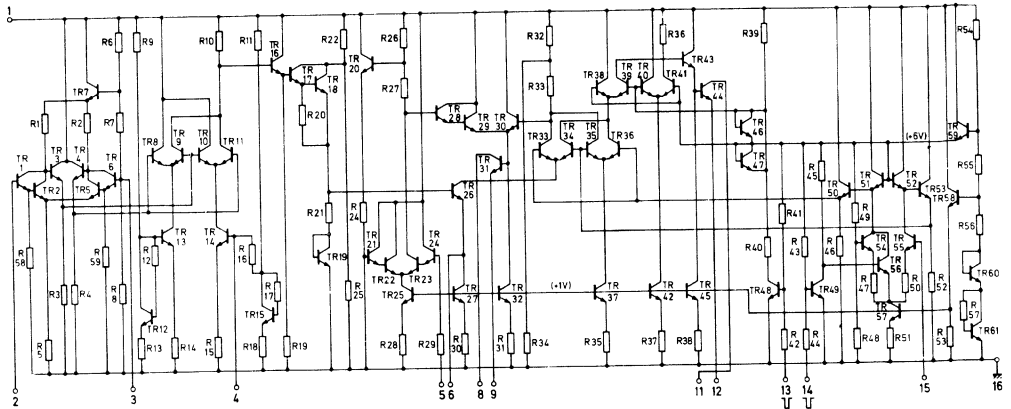
- 1 leave vacant or take to + 6 V
- 2 Clock input t_2
- 3 Signal input
- 4 Ground, 0
- 5 Clock input t_1
- 6 Signal output
- 7 V_{DD}
- 8 NC

CD135

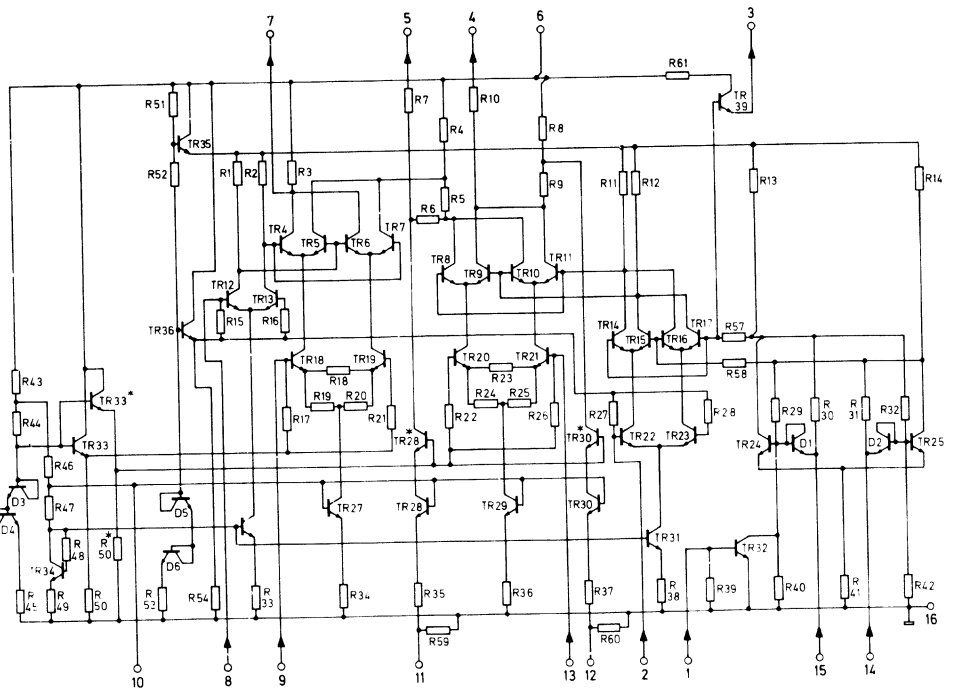


A : Préamplifier
Préamplificateur B : Amplifier
Amplificateur

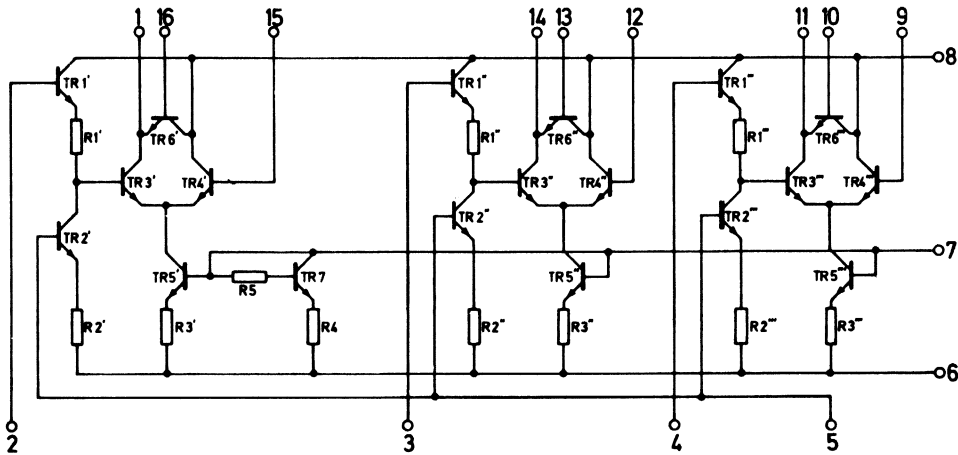
CD137



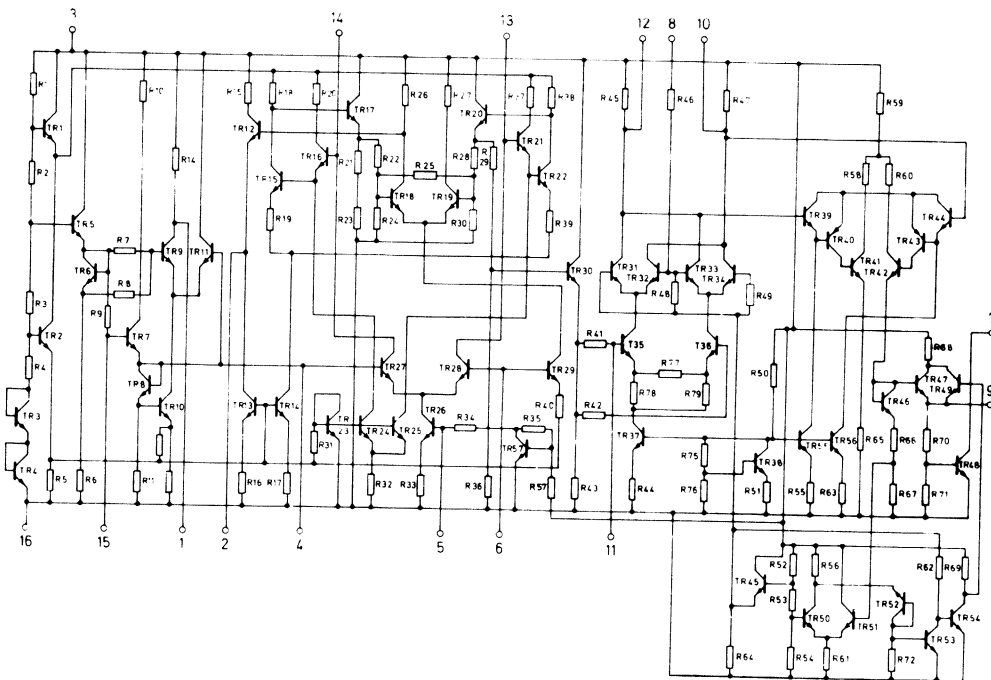
CD138



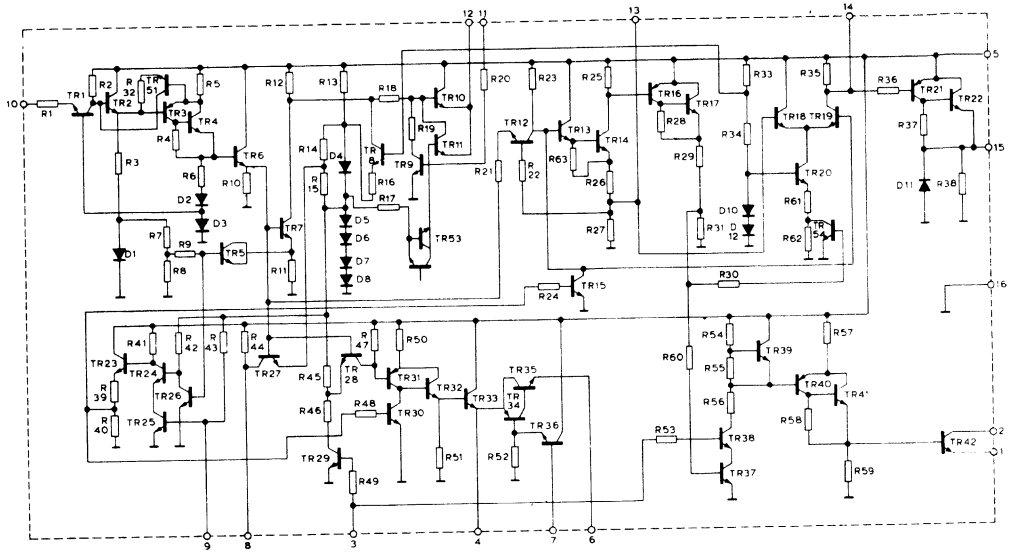
CD139



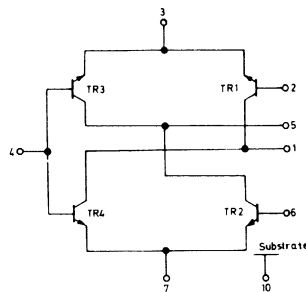
CD140



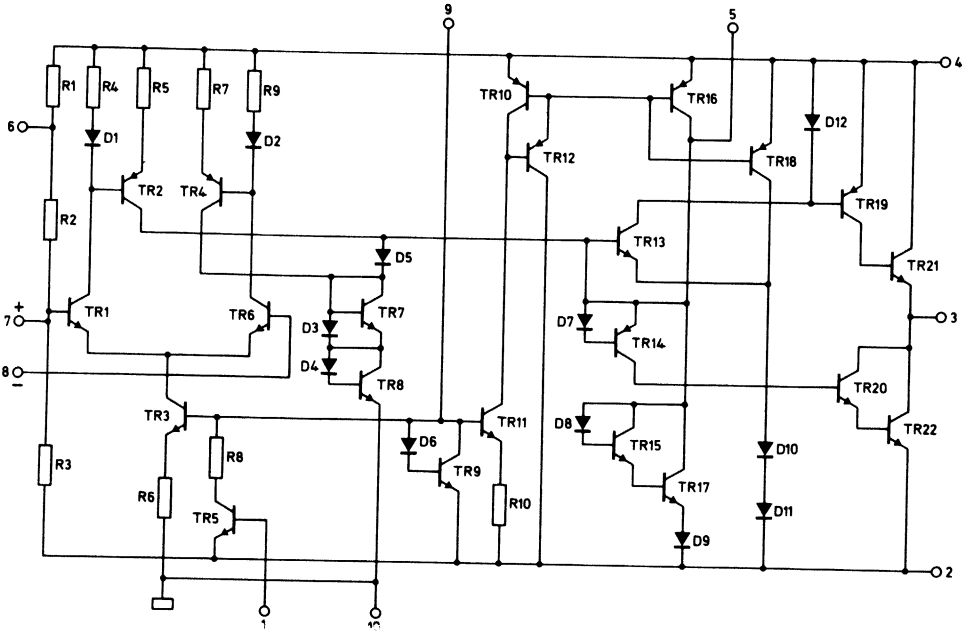
CD141



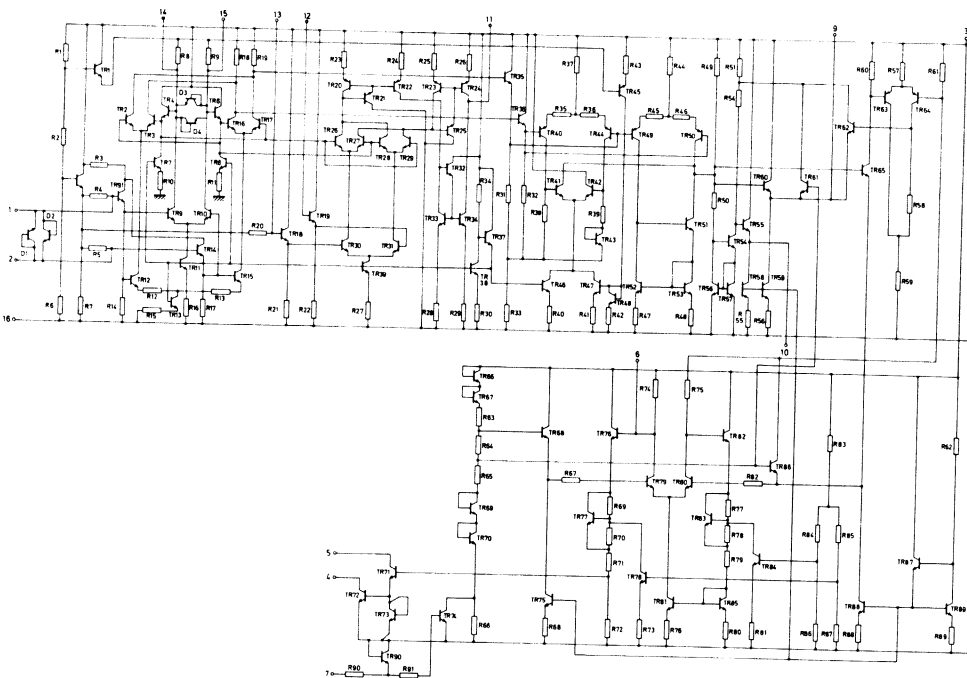
CD142



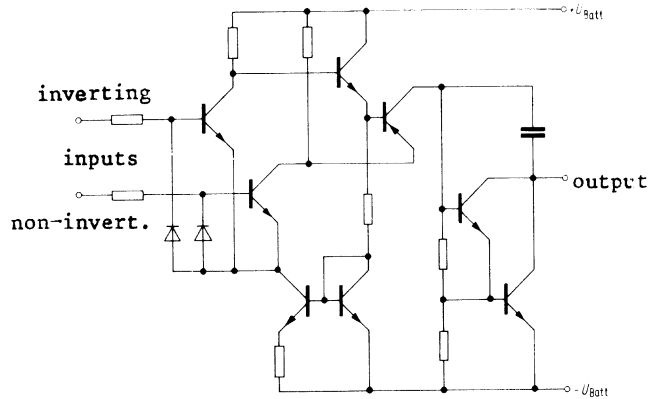
CD143



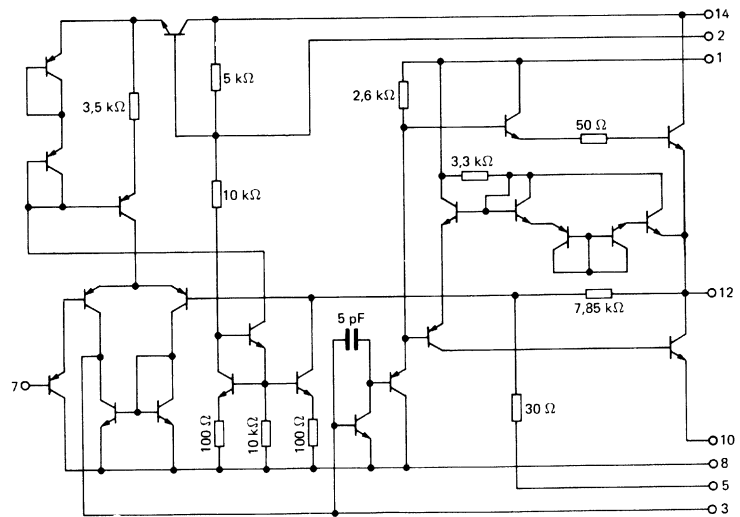
CD144



CD145

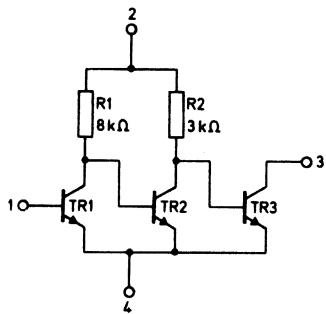


CD148

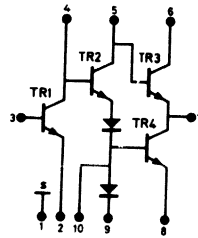


CD146

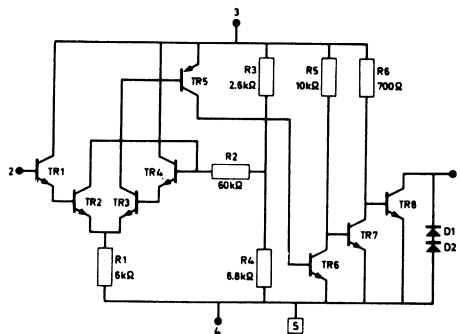
CD150



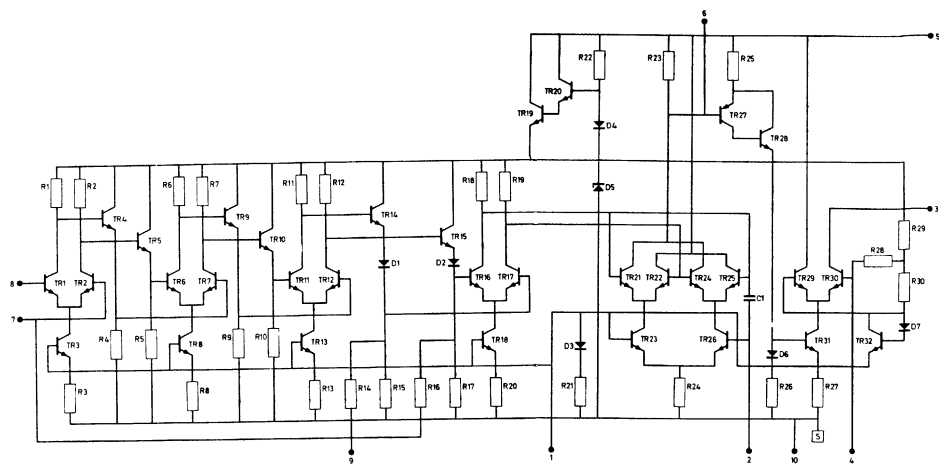
CD151



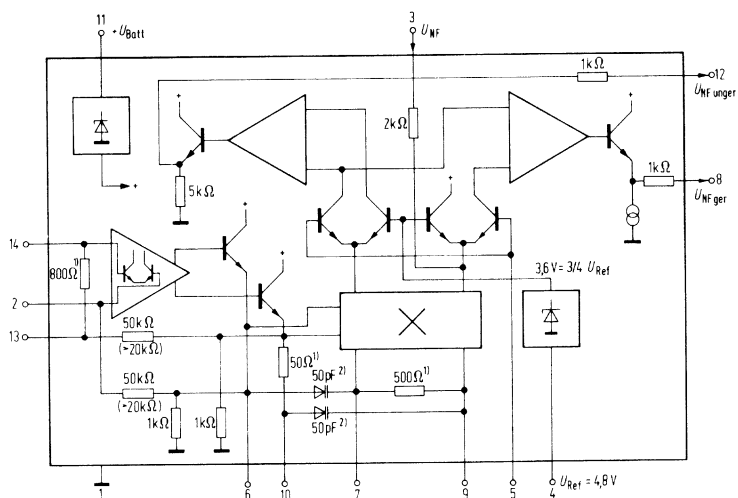
CD152



CD153

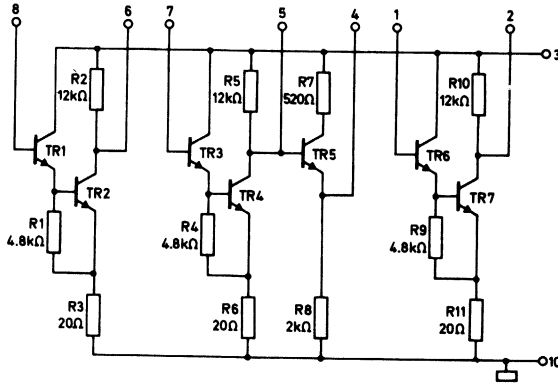


CD154

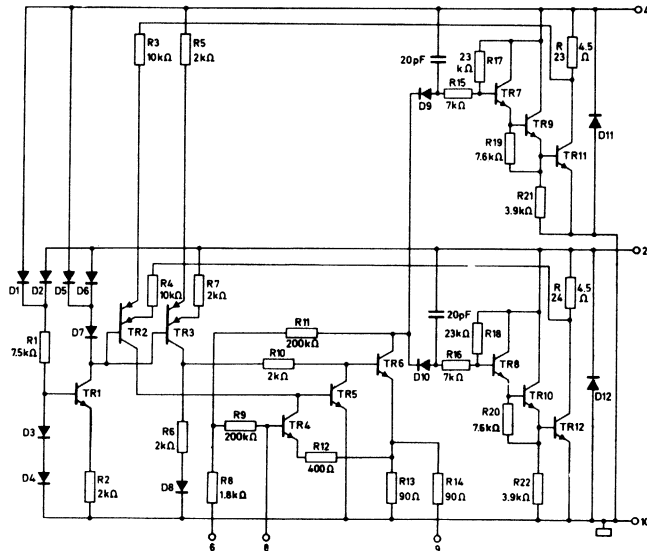


¹⁾ nur TBA 120 T
²⁾ nur TBA 120 U

CD155

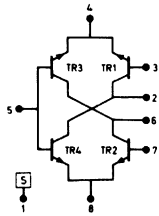


CD156

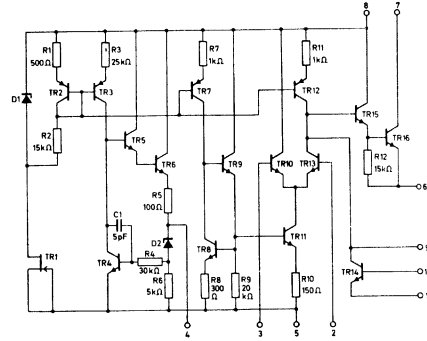


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBILDER

CD157



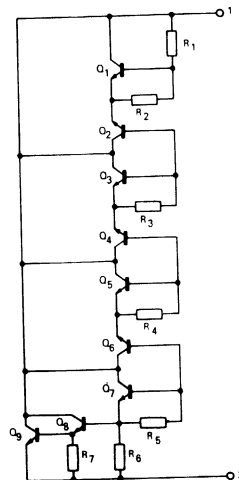
CD159



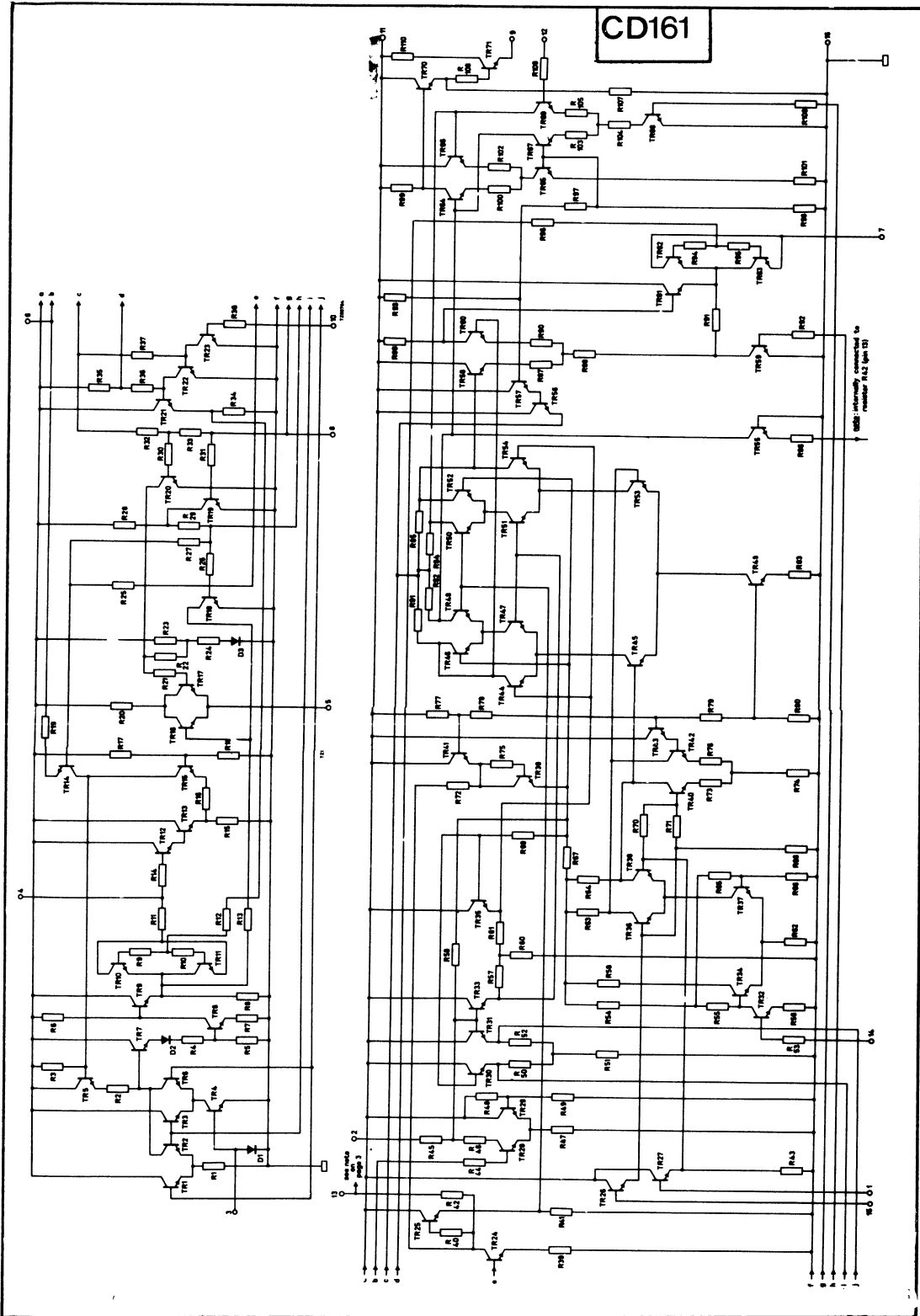
Pinning

- | | |
|----------------------------|----------------------------|
| 1. Current sense | 6. Output voltage |
| 2. Inverting input | 7. Collector voltage |
| 3. Non-inverting input | 8. Positive supply voltage |
| 4. Reference voltage | 9. Frequency compensation |
| 5. Negative supply voltage | 10. Current limit |

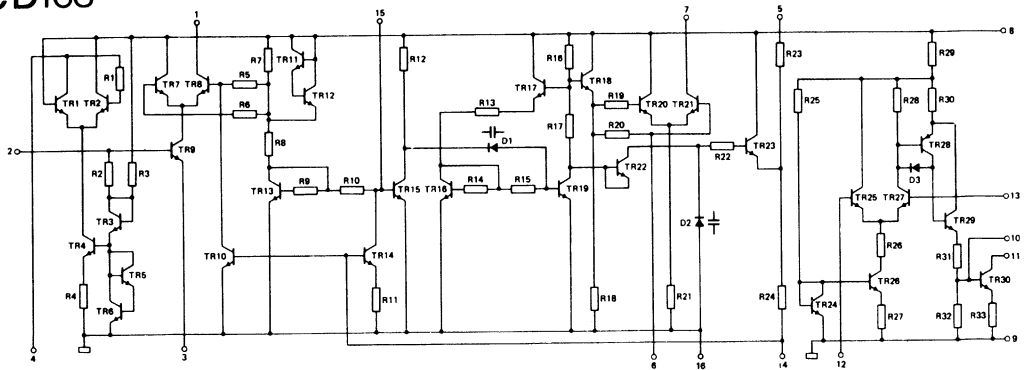
CD160



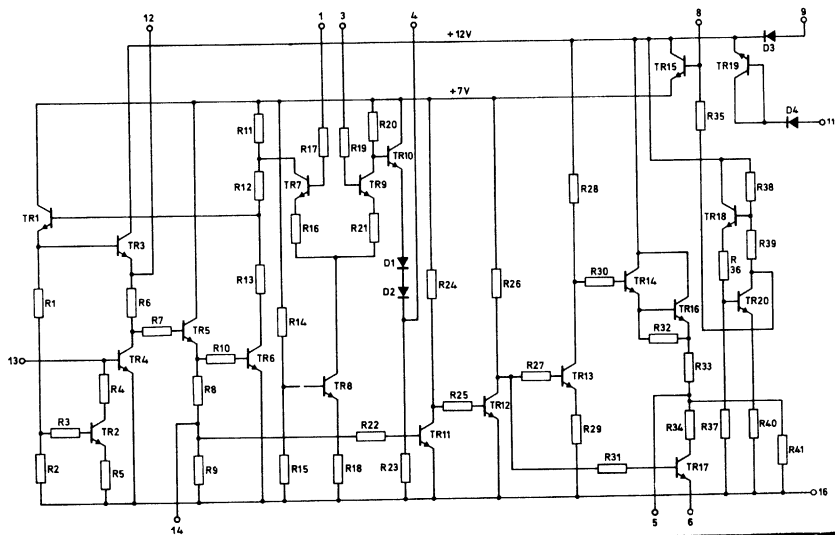
CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder



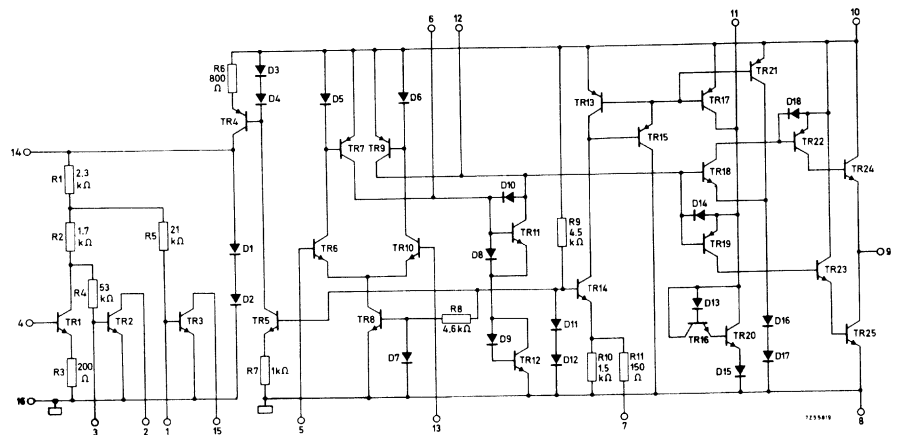
CD163



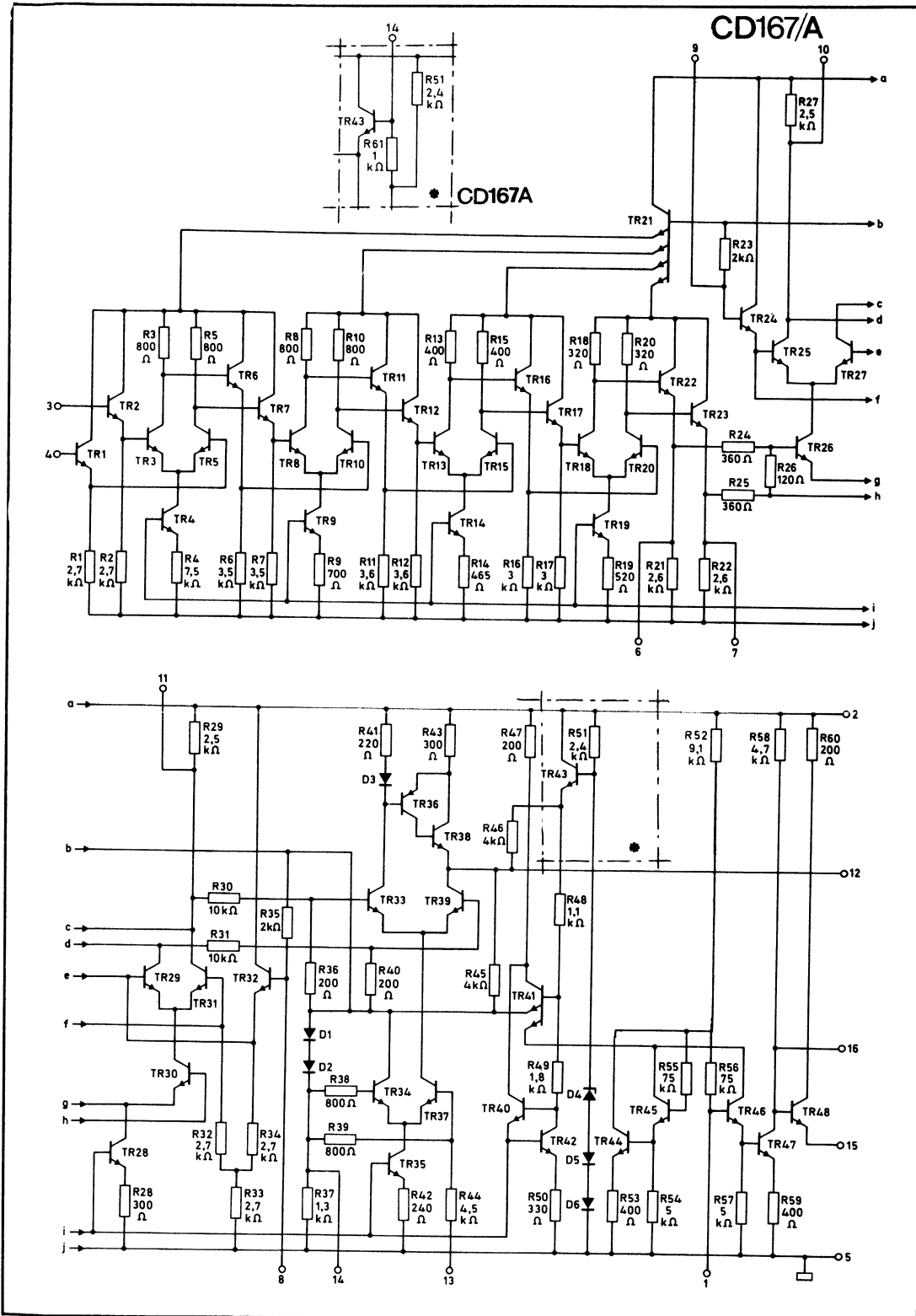
CD166A



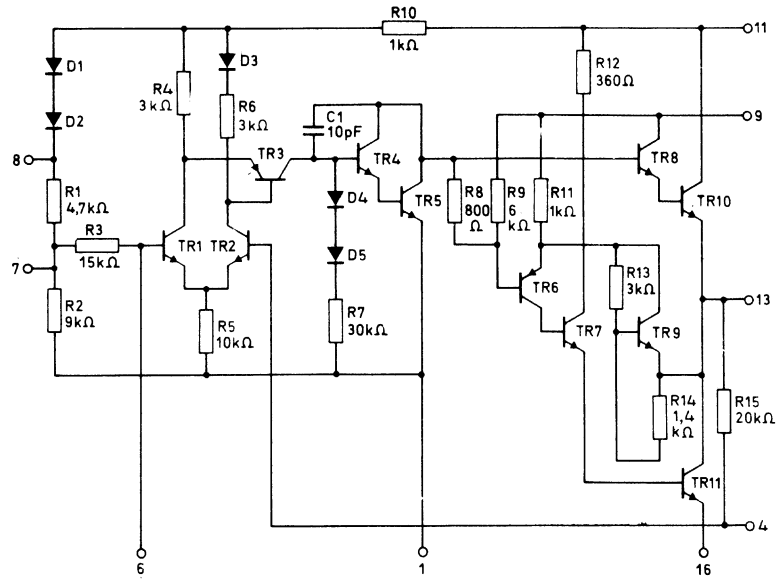
CD166B



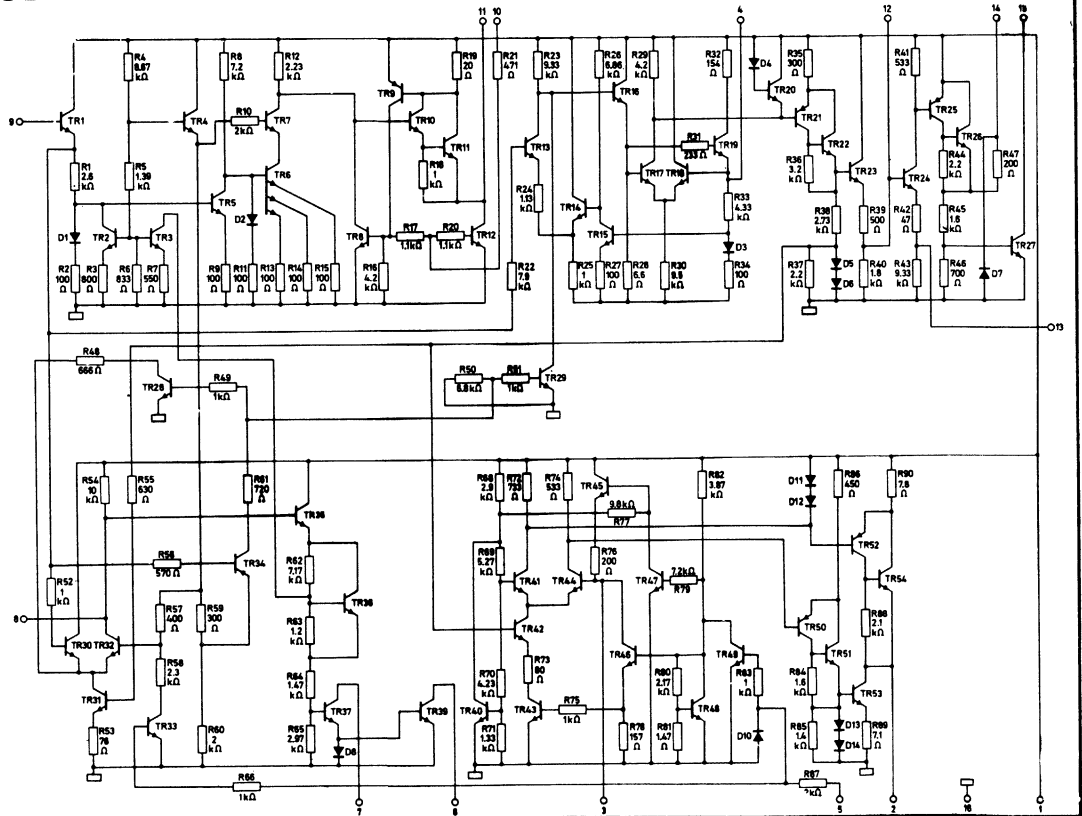
CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder

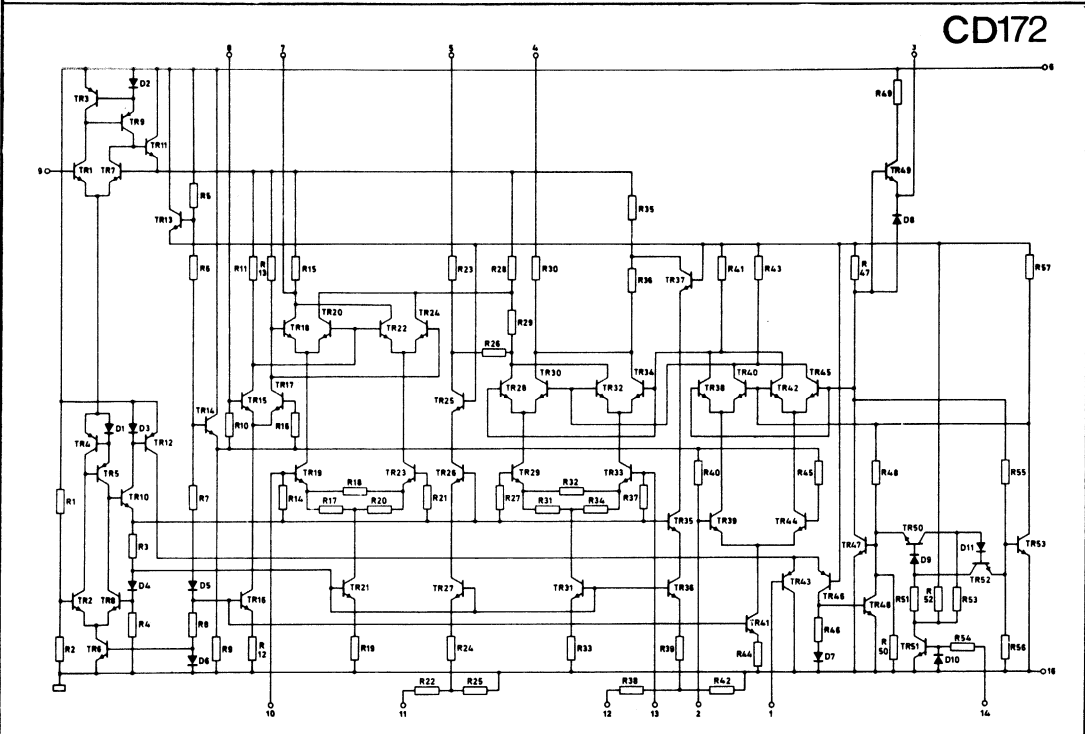
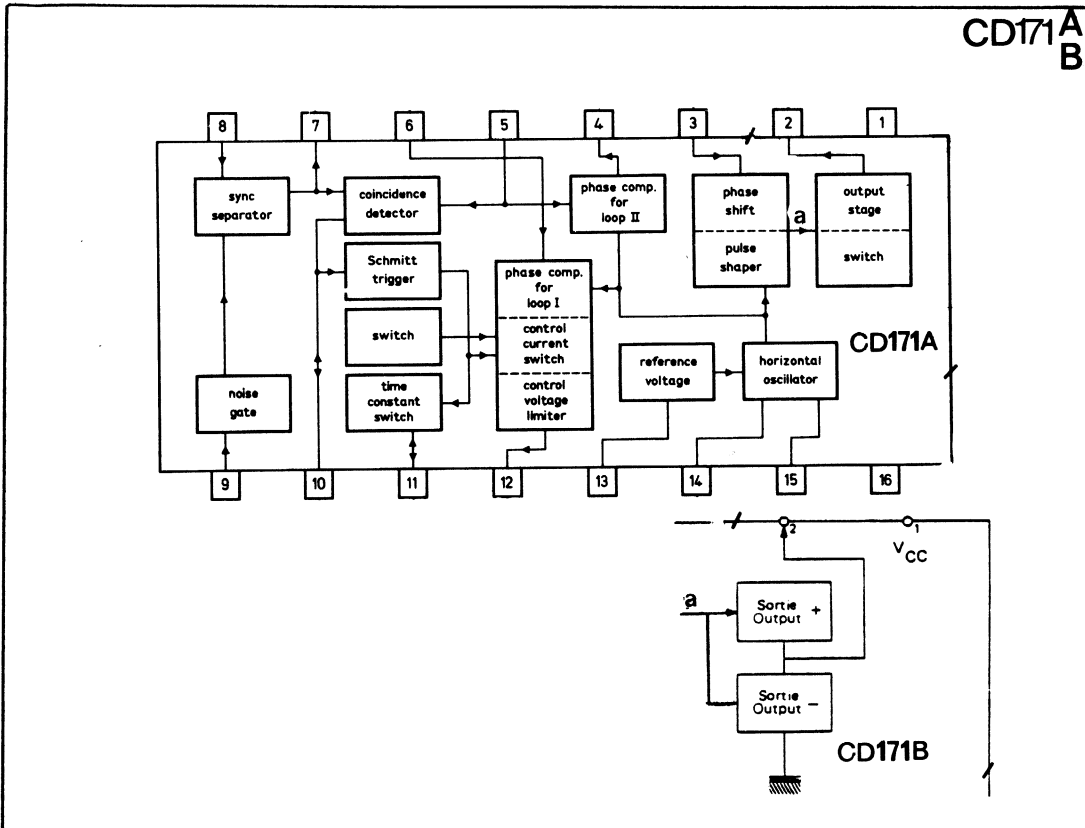


CD168

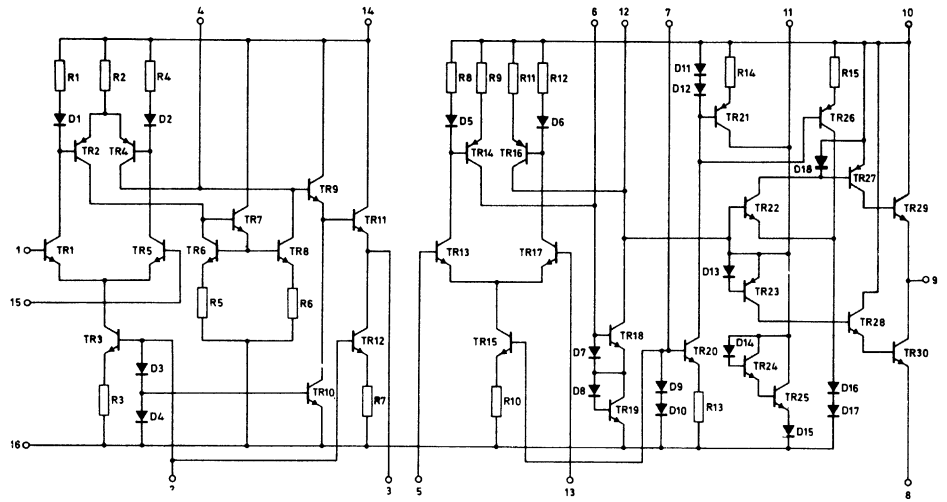


CD169

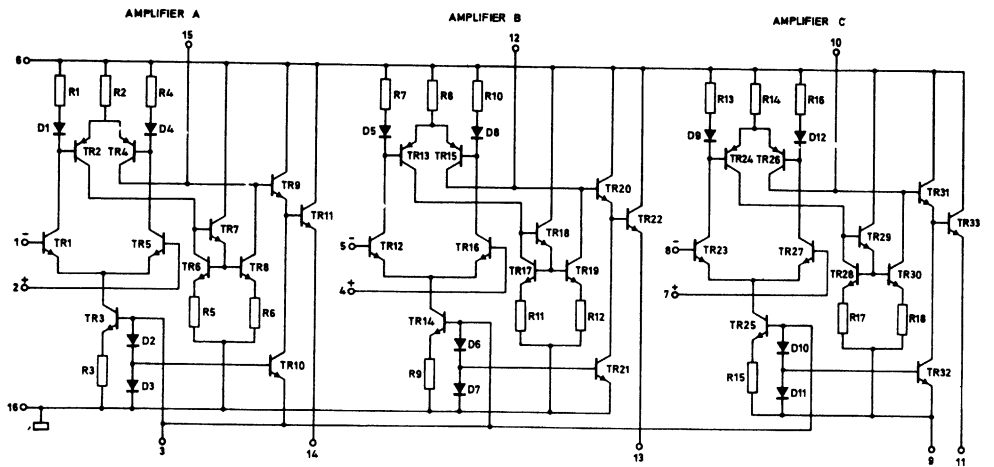




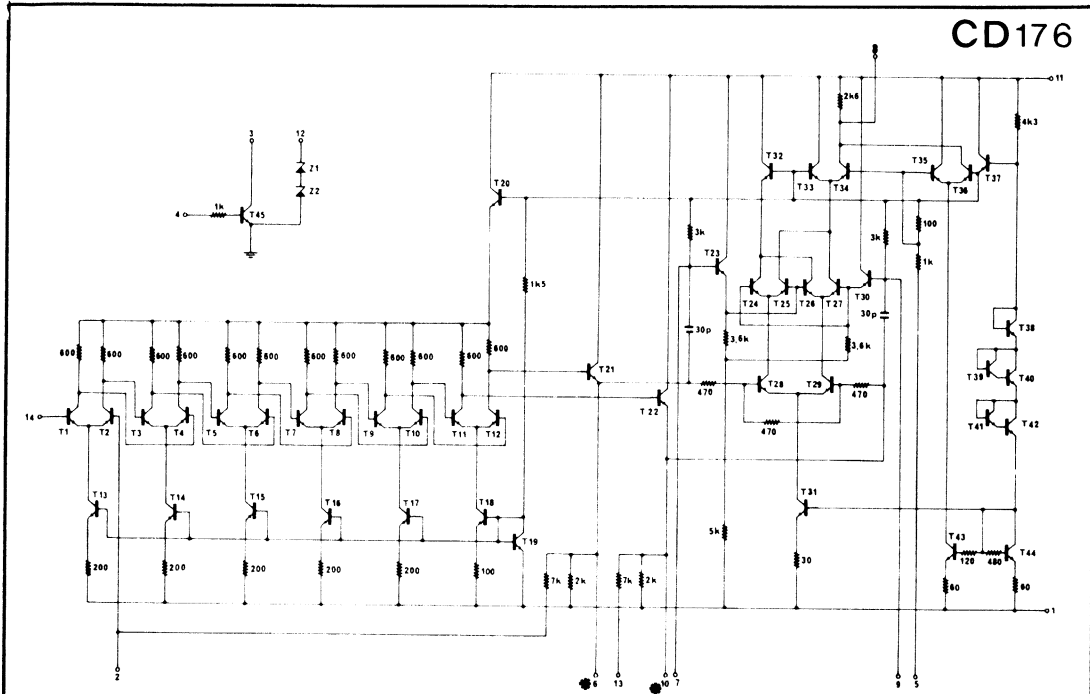
CD174



CD175

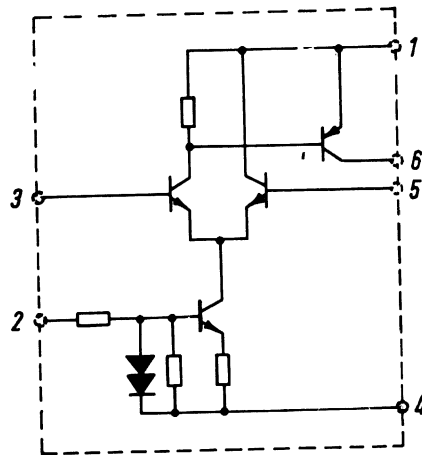


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIEDER

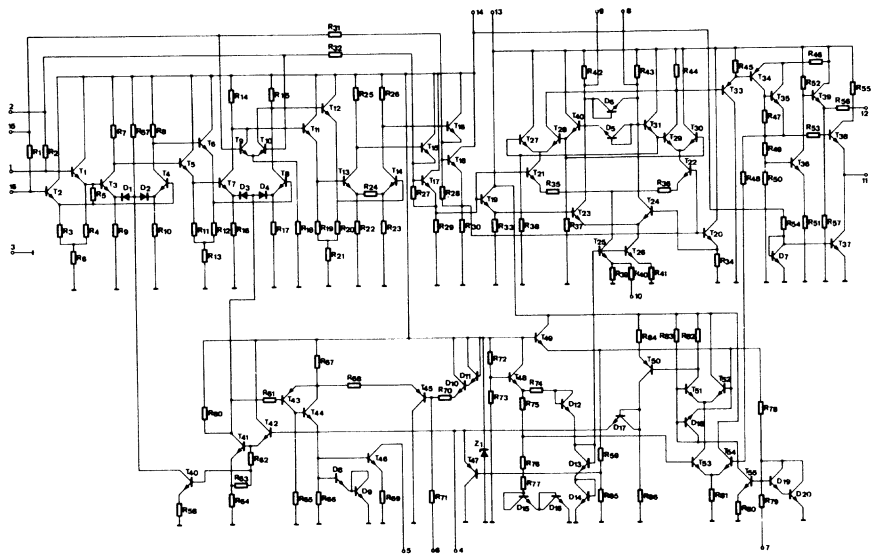


* for the TBA120D/DQ: pin 6 and pin 10 are not internally connected

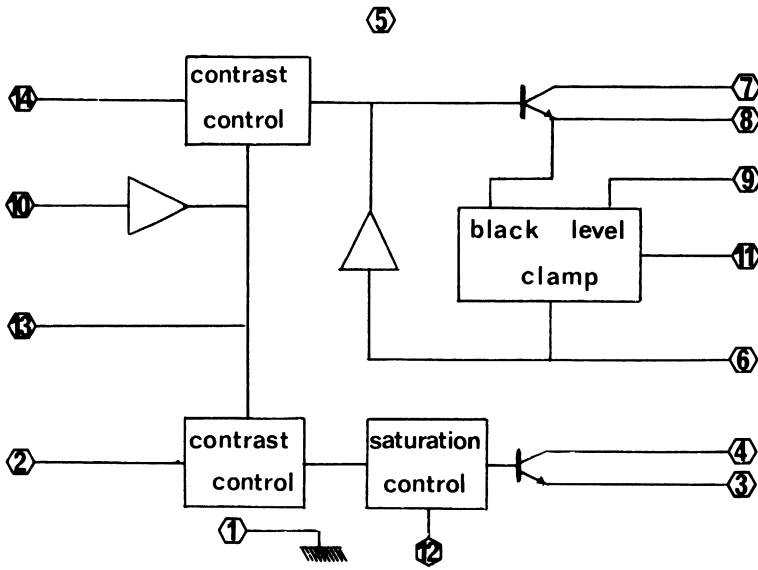
CD178



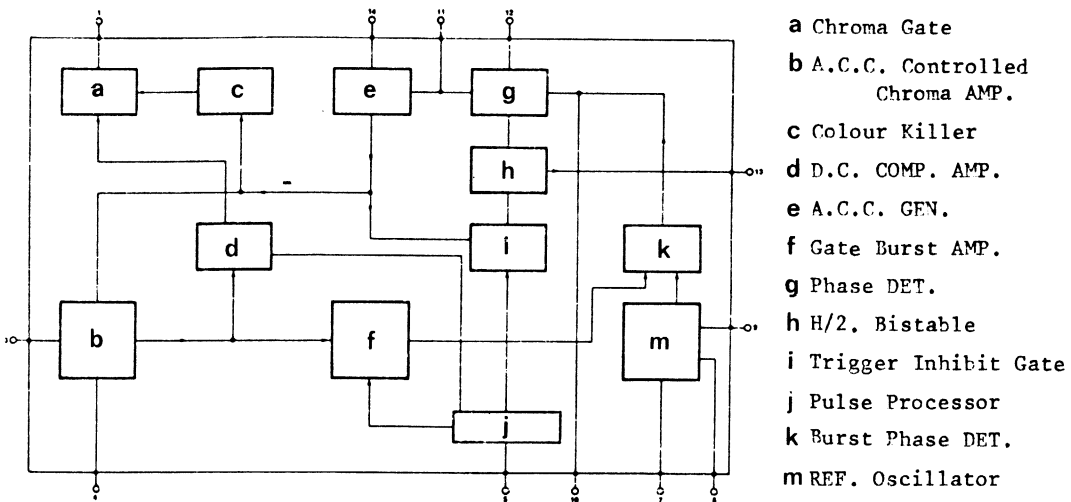
CD182



CD183

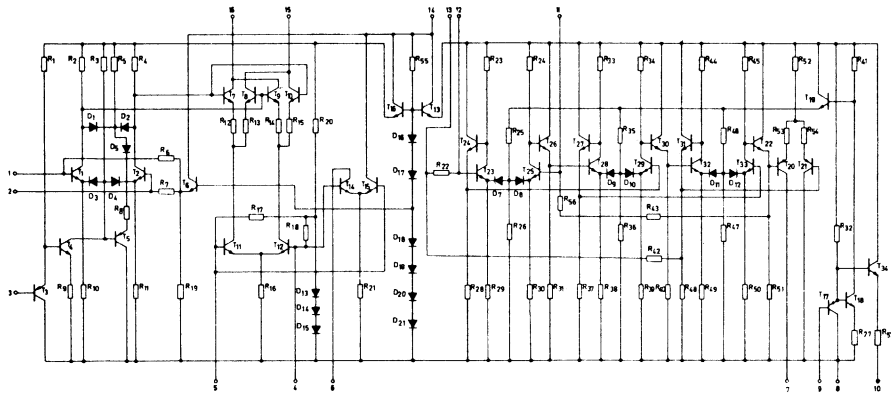


CD184

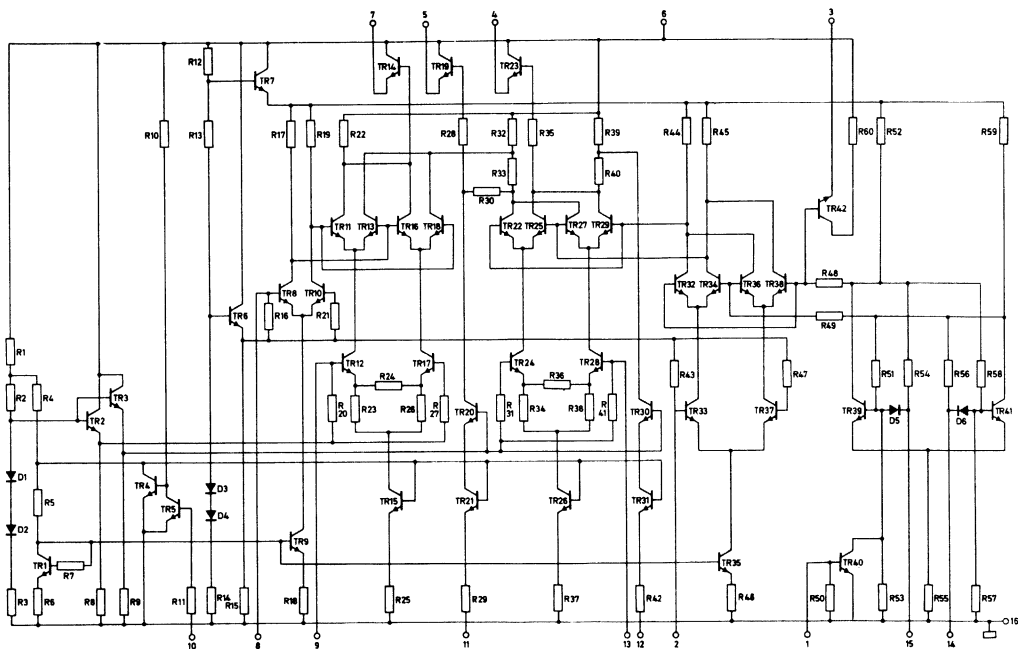


- a Chroma Gate
- b A.C.C. Controlled Chroma AMP.
- c Colour Killer
- d D.C. COMP. AMP.
- e A.C.C. GEN.
- f Gate Burst AMP.
- g Phase DET.
- h H/2. Bistable
- i Trigger Inhibit Gate
- j Pulse Processor
- k Burst Phase DET.
- m REF. Oscillator

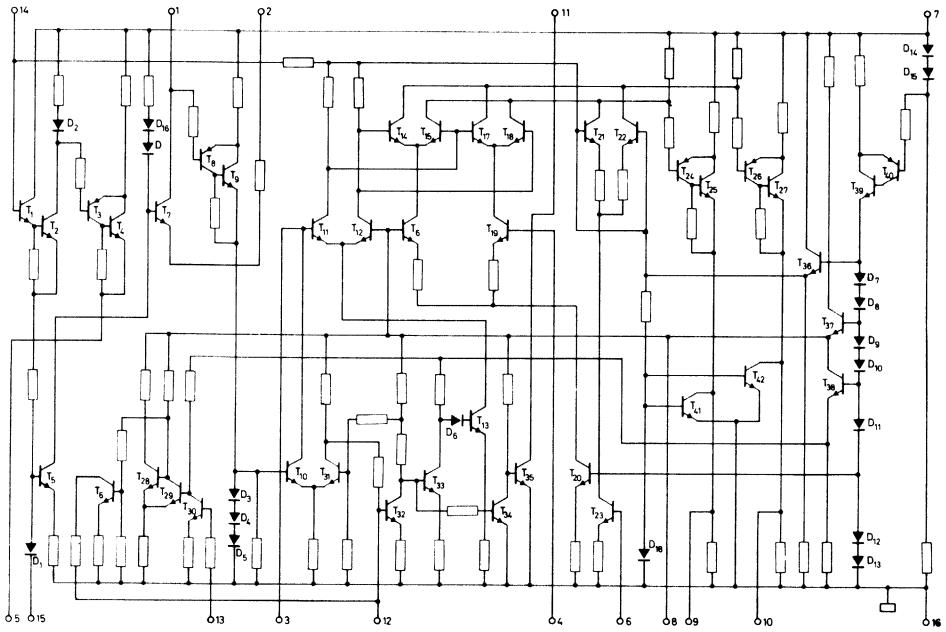
CD185



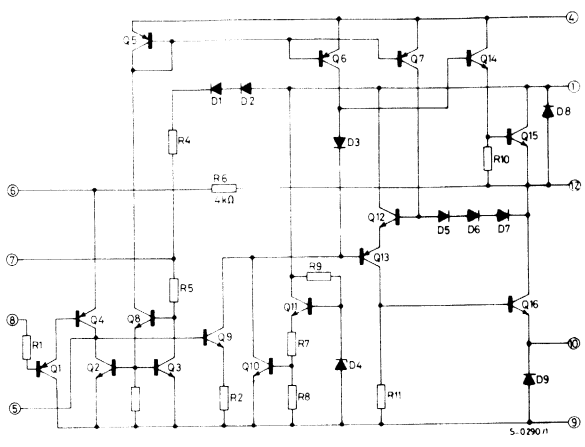
CD188

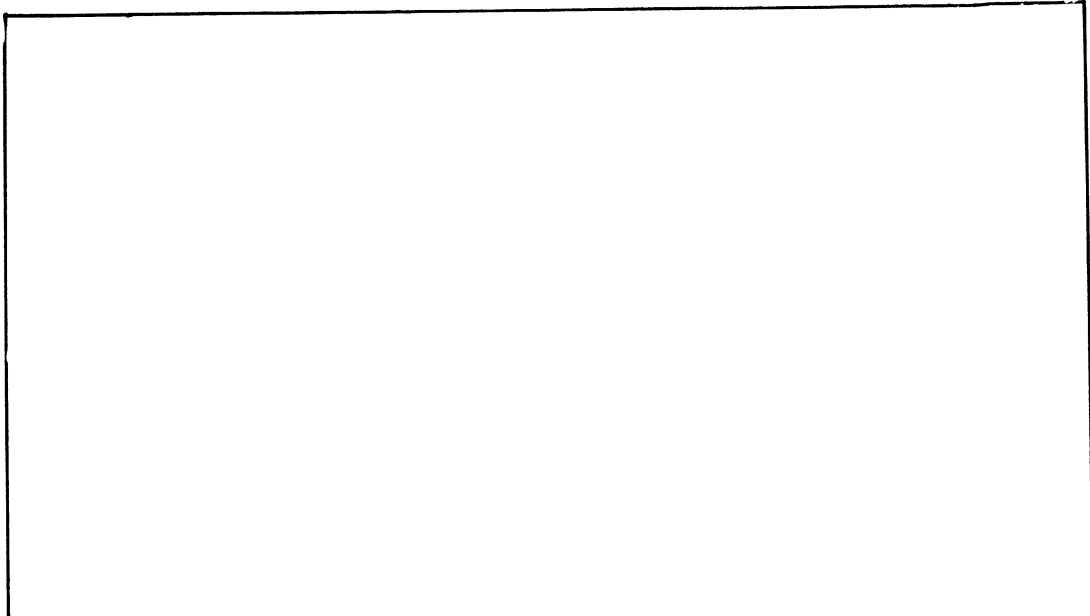


CD191

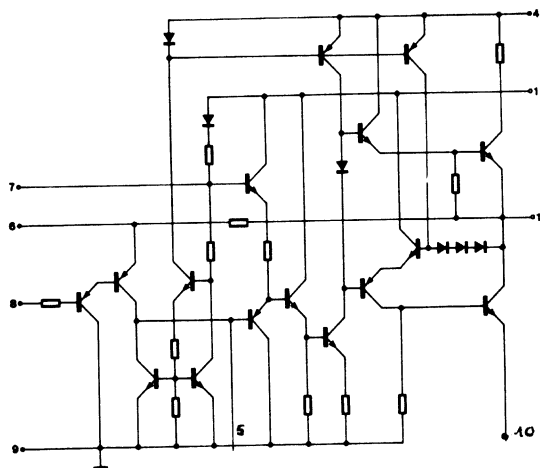


CD194

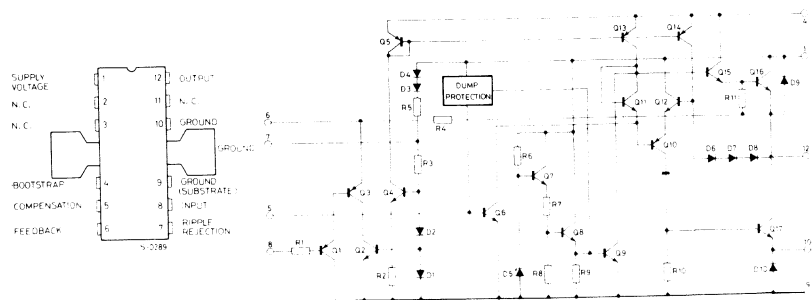




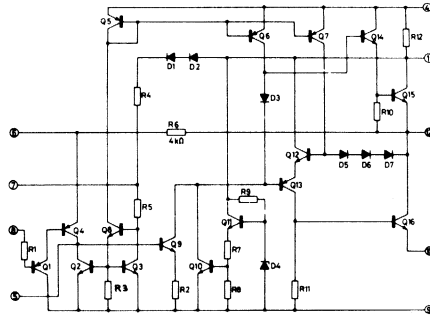
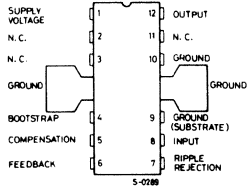
CD195



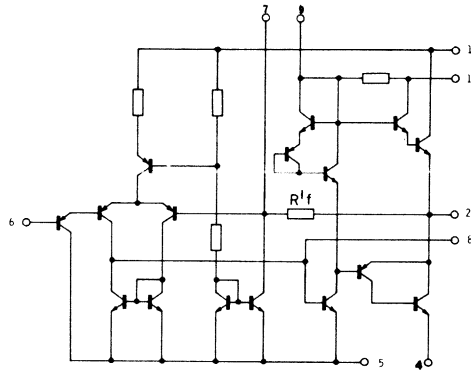
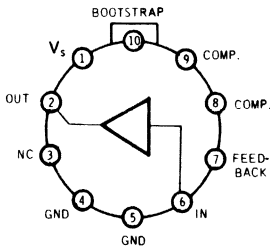
CD196



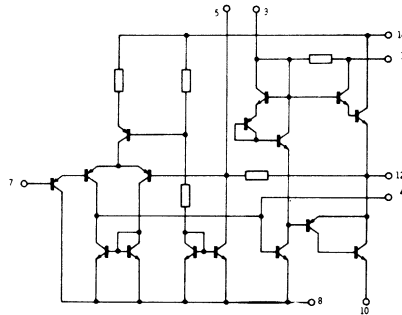
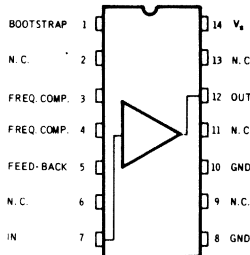
CD197



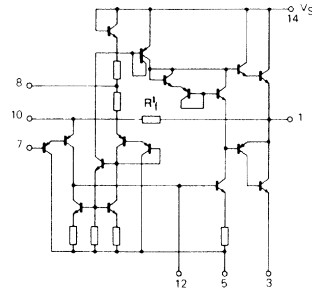
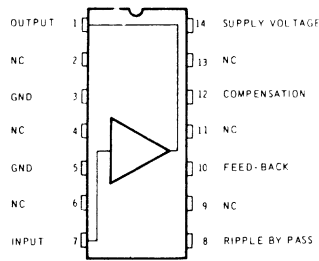
CD198A



CD198B

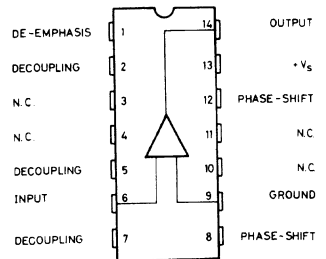
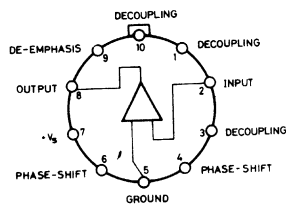
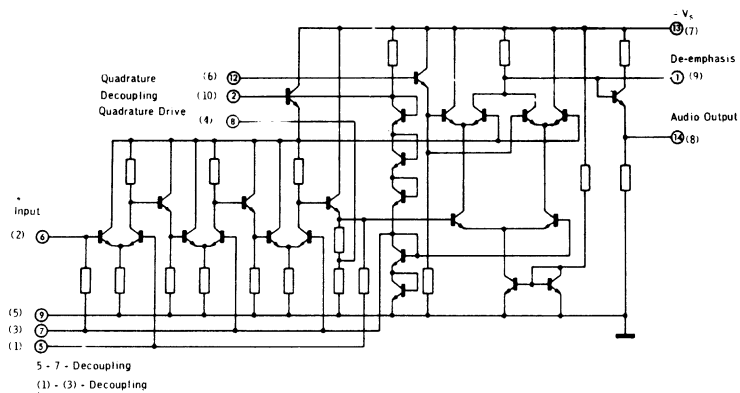


CD200



The heat-sink is connected to the substrate (pin 5)

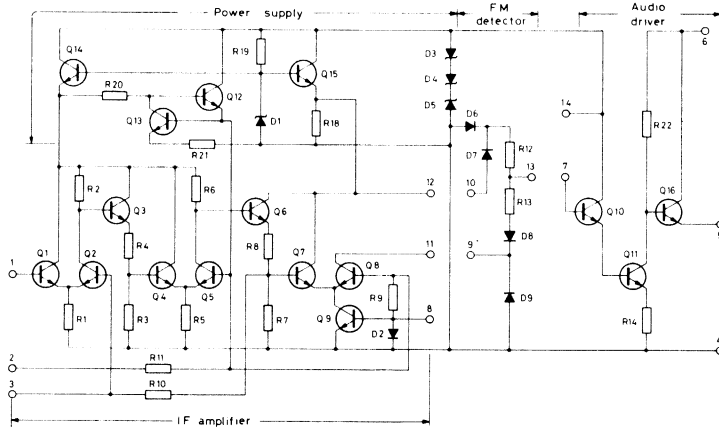
CD201



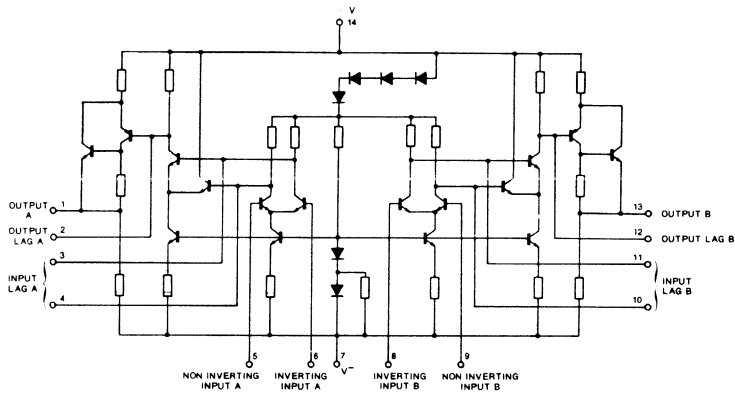
CD 201A

CD201B

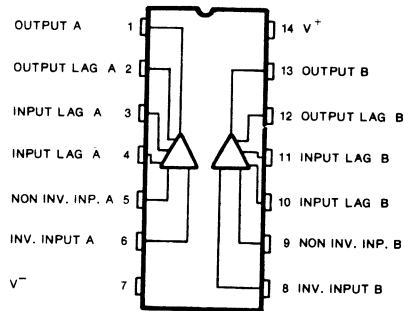
CD202



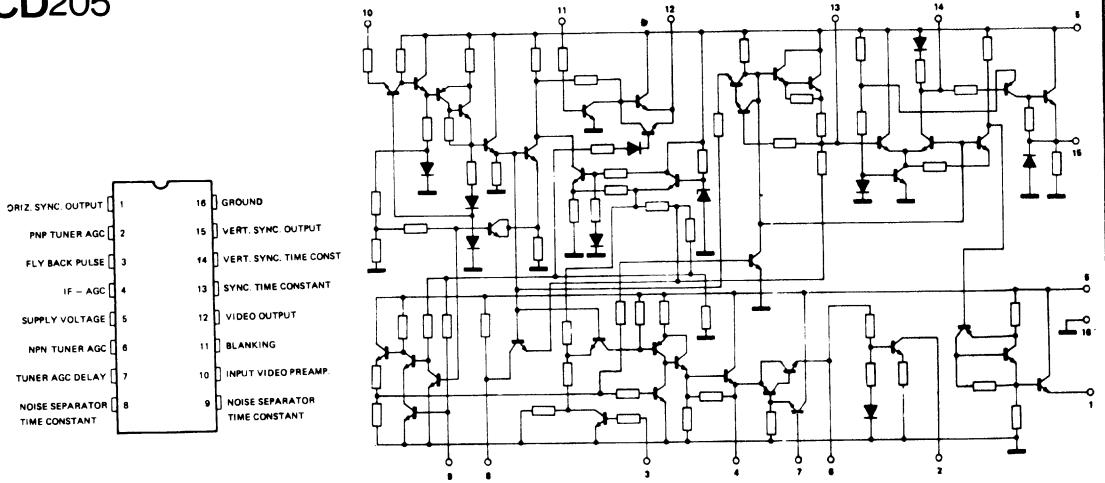
CD203



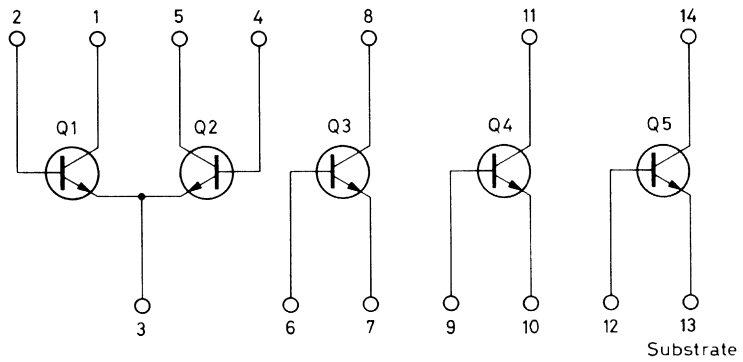
CONNECTION DIAGRAM
(top view)



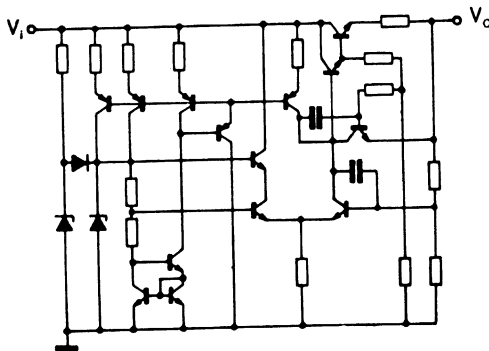
CD205



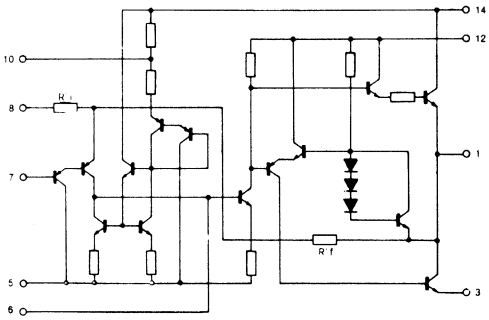
CD206



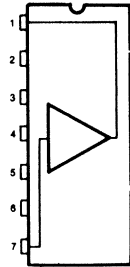
CD207



CD210

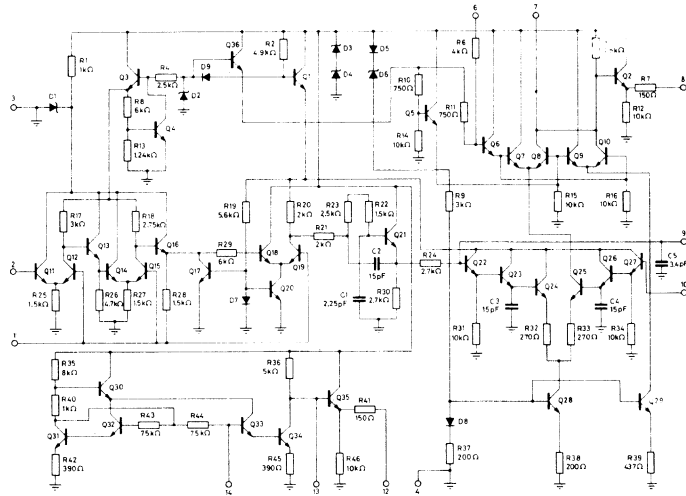


OUTPUT
N C
GROUND
N C
GROUND
COMPENSATION
INPUT

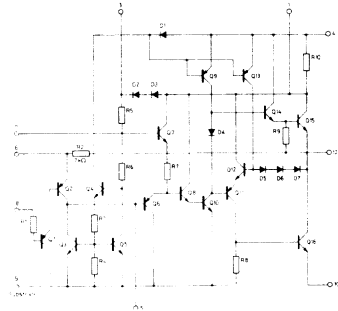
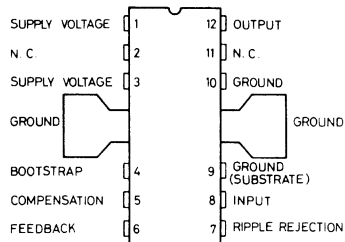


14 SUPPLY VOLTAGE
13 N C
12 BOOTSTRAP
11 N C
10 RIPPLE BY-PASS
9 N C
8 FEED-BACK

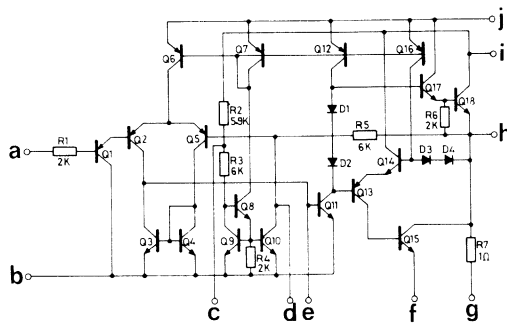
CD212



CD213

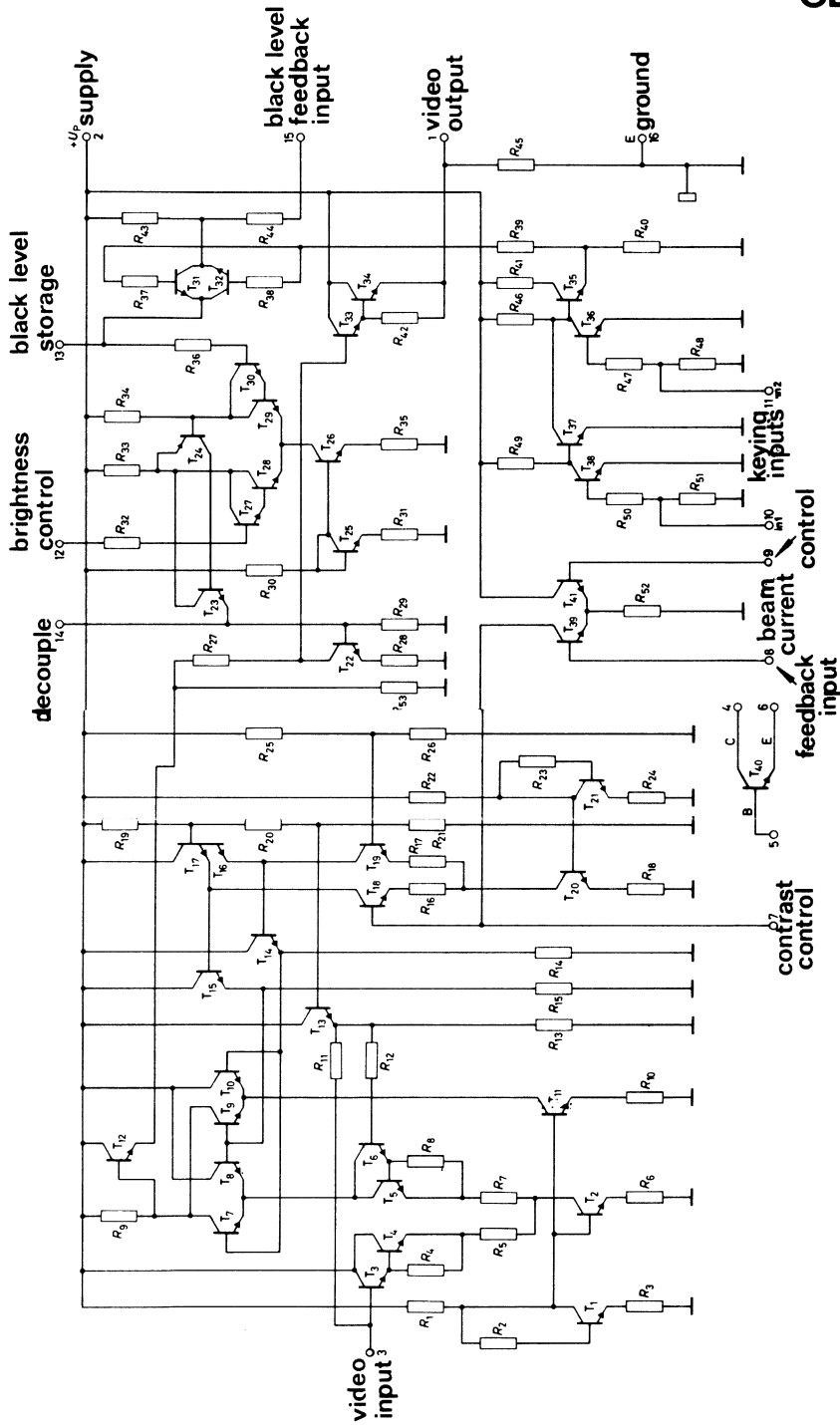


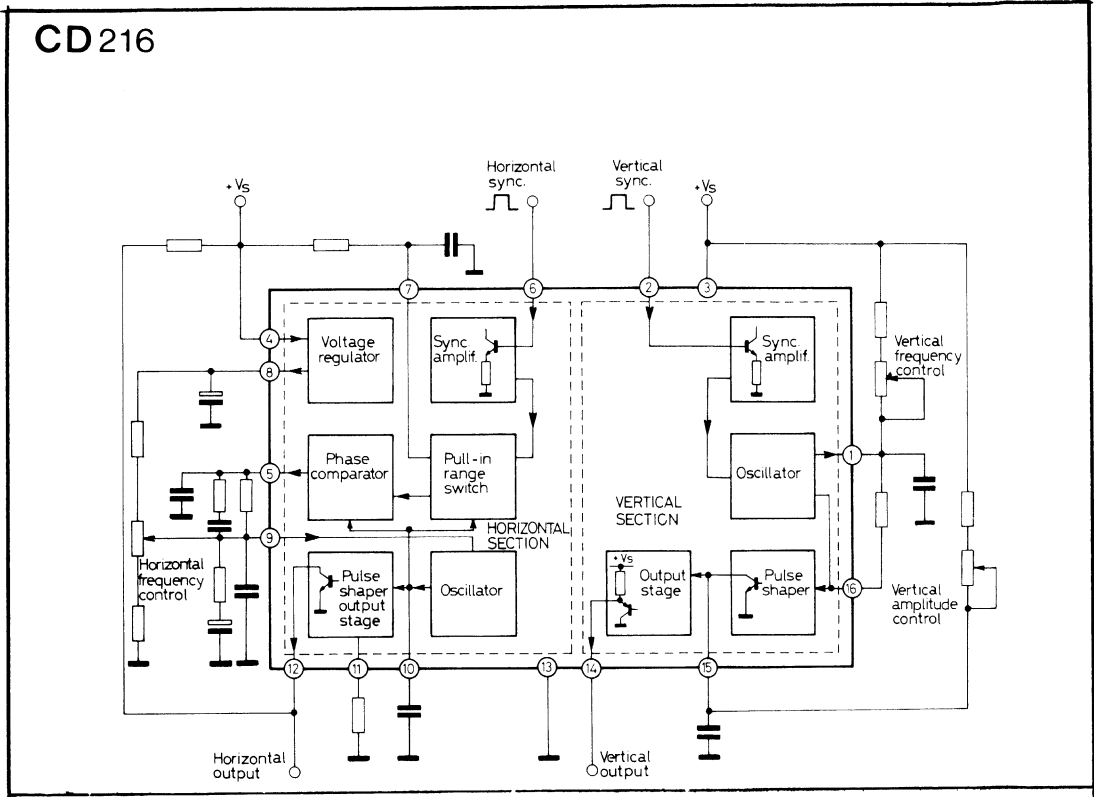
CD214A/B/C



	a	b	c	d	e	f	g	h	i	j
214A	7	8	2	5	4	10	13	12	14	1
214B	4	5	1	3	2	6	8	7	9	10
214C	3	-	8	2	1	4	-	5	6	7

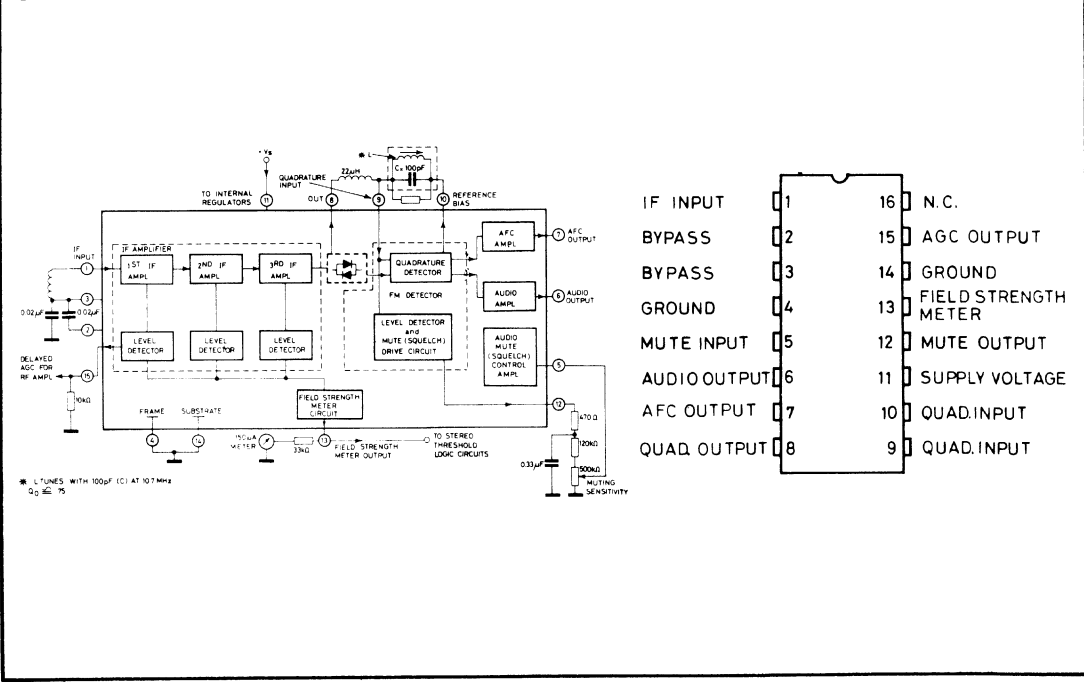
CD215



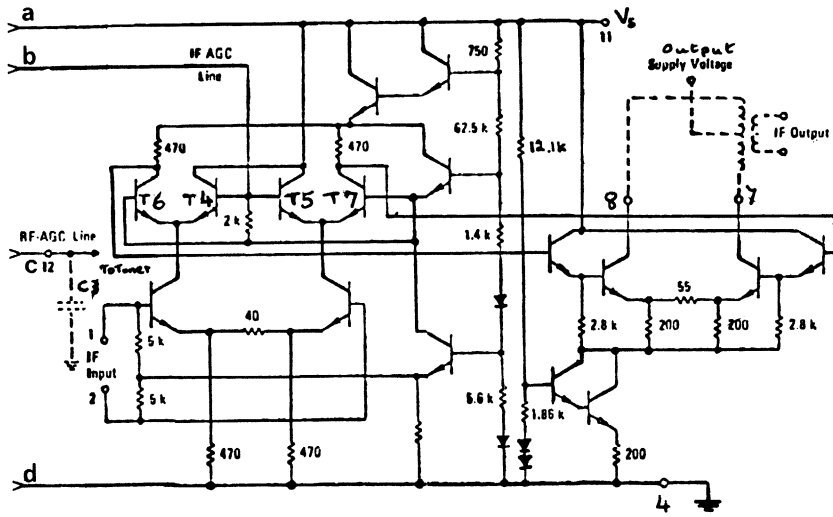
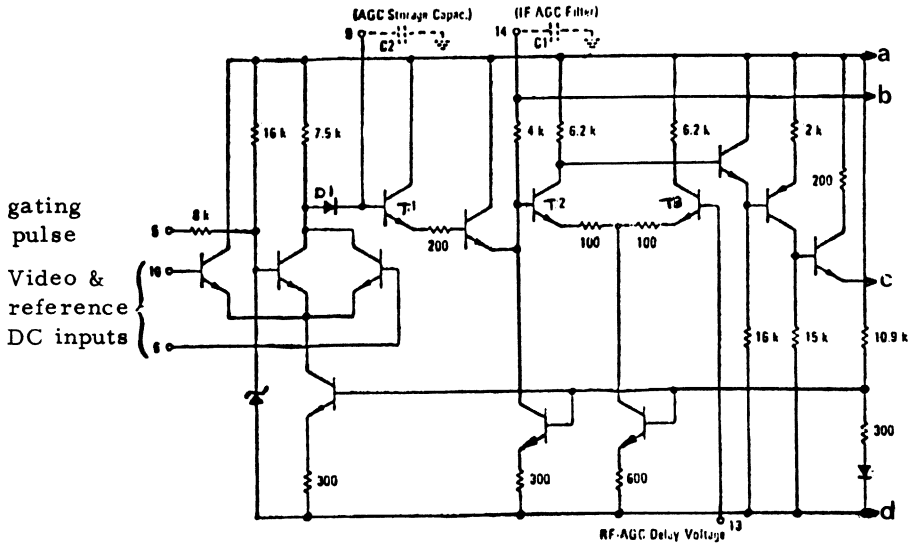


CD219: see next page

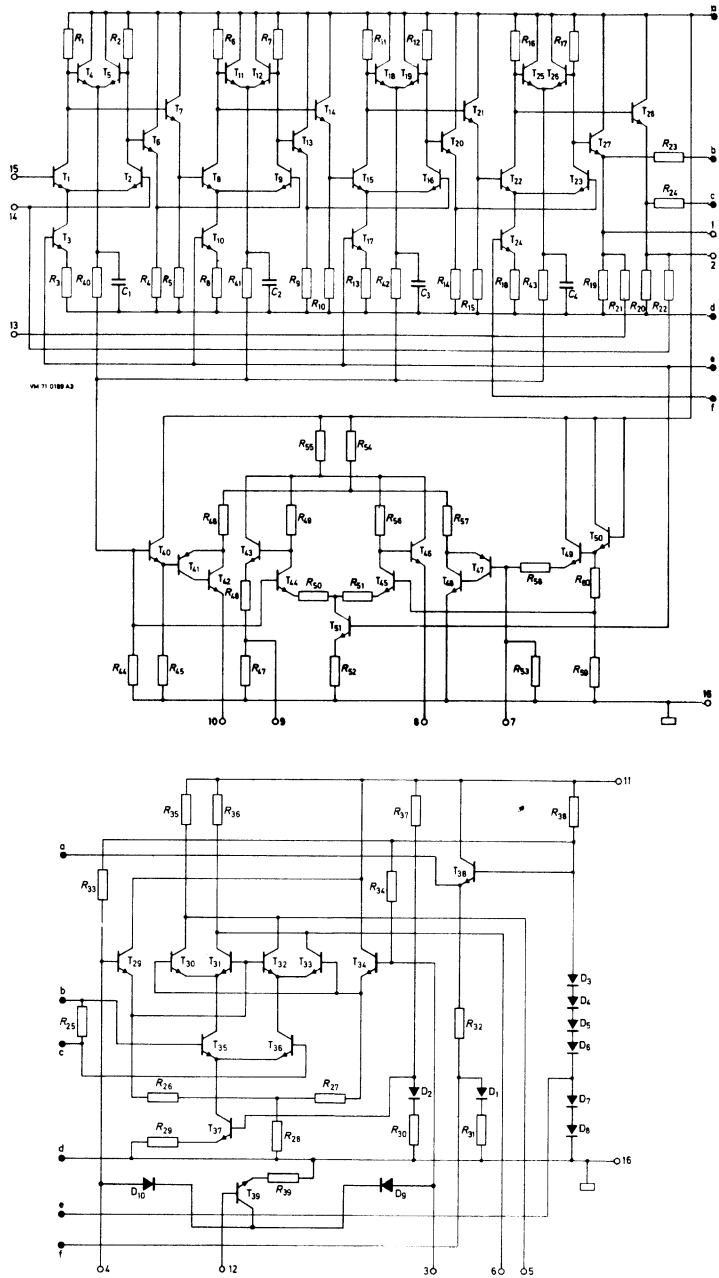
CD220



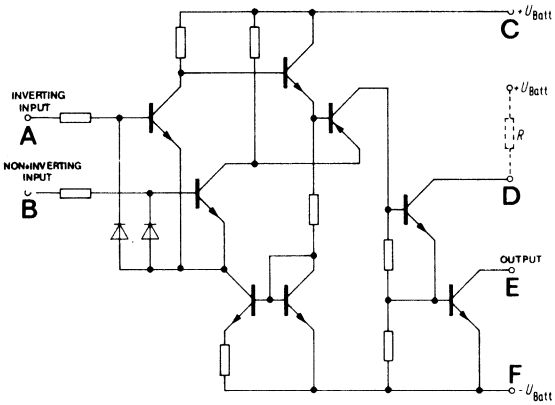
CD219



CD221

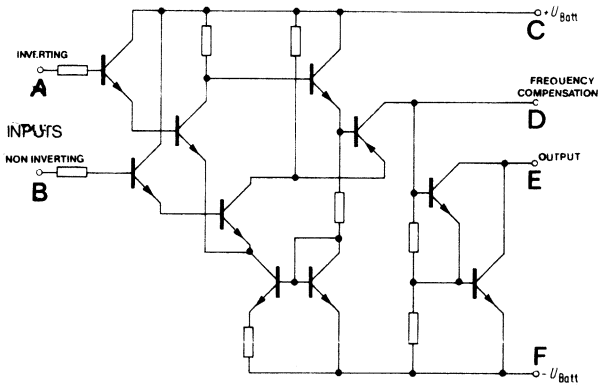


CD223



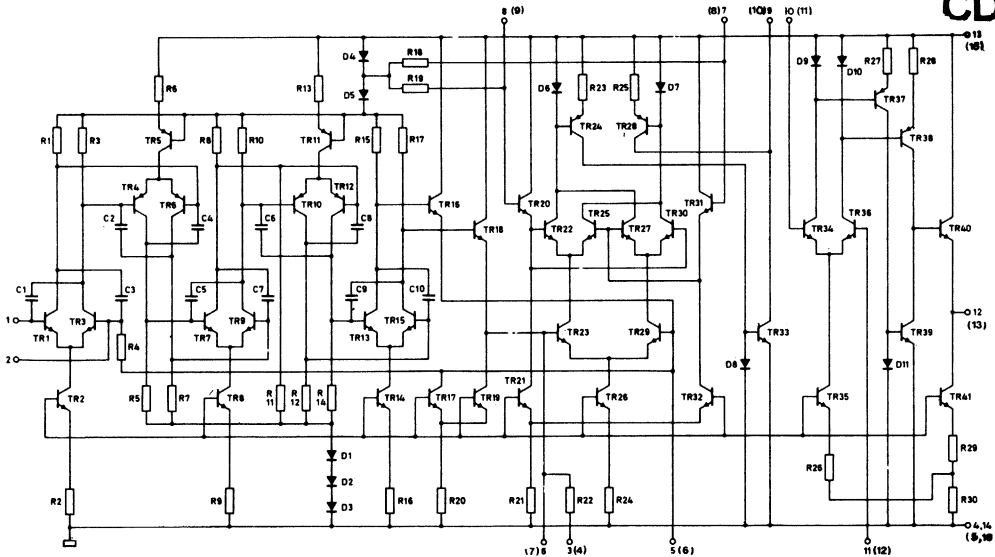
	A	B	C	D	E	F
CD223A	4	3	2	8	7	6
CD223B	3	2	1	6	5	4
CD223C	2	1	6	5	4	3

CD225



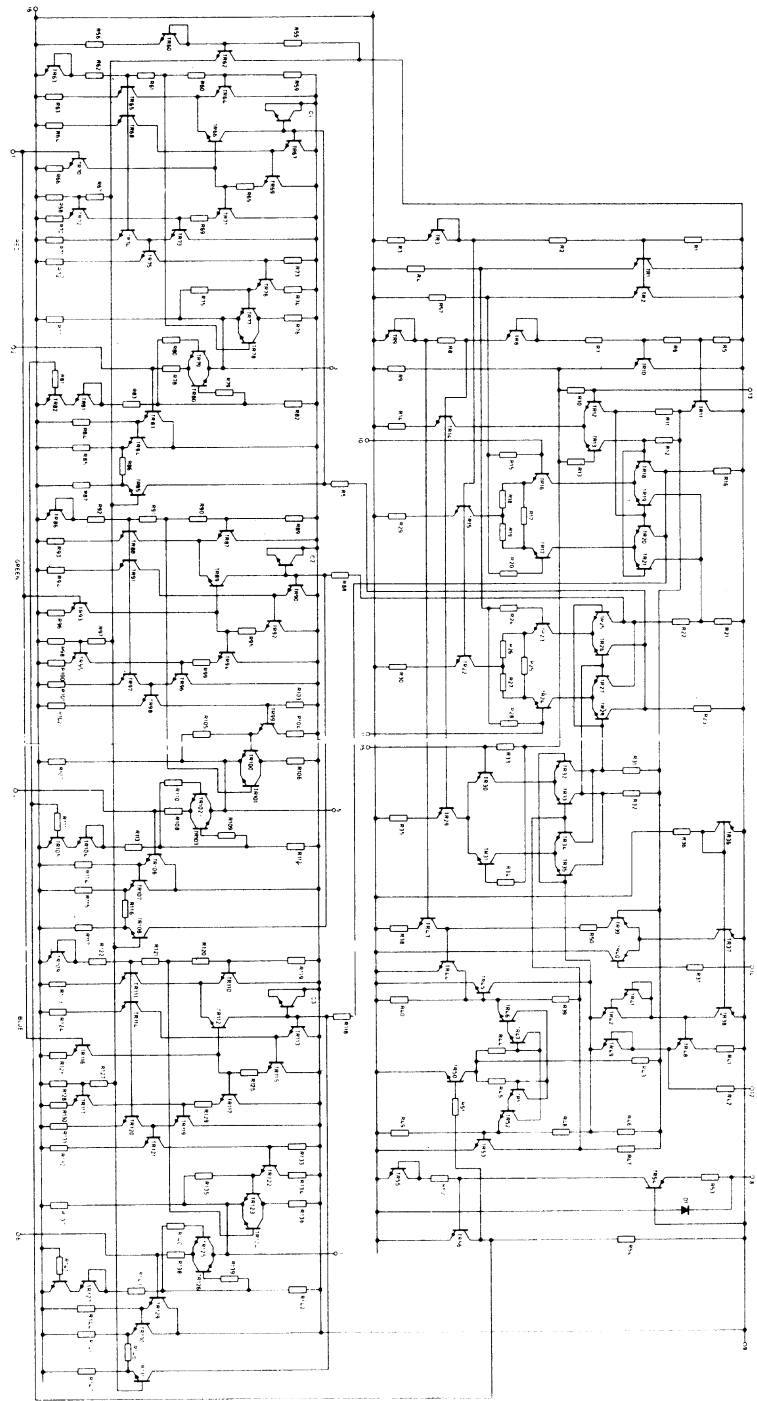
	A	B	C	D	E	F
CD225A	4	3	2	8	7	6
CD225B	3	2	1	6	5	4
CD225C	2	1	6	5	4	3

CD227

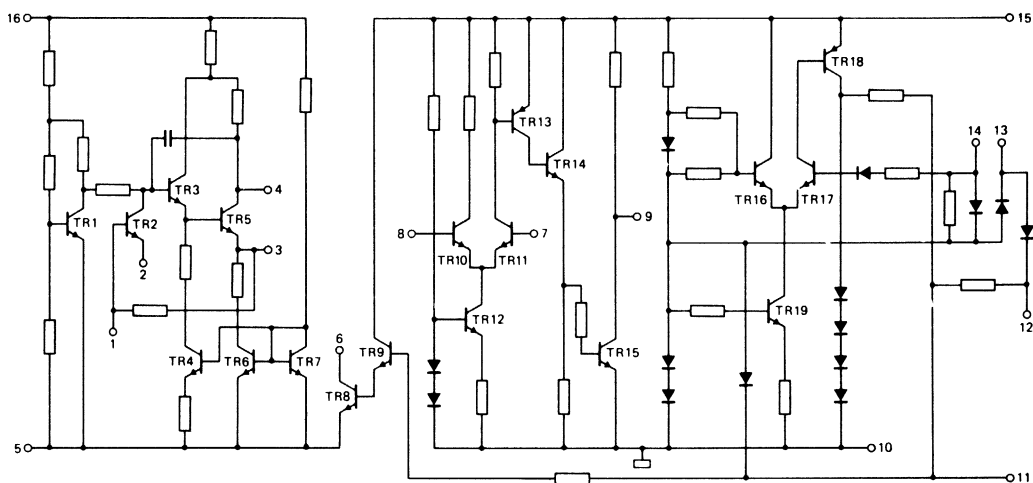


pin numbers between brackets: TCA770A

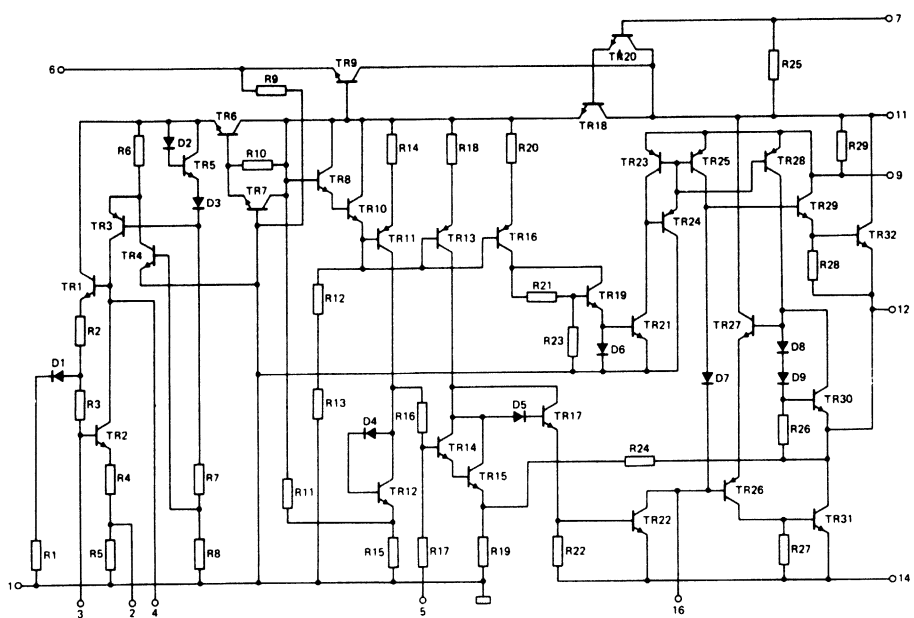
CD228



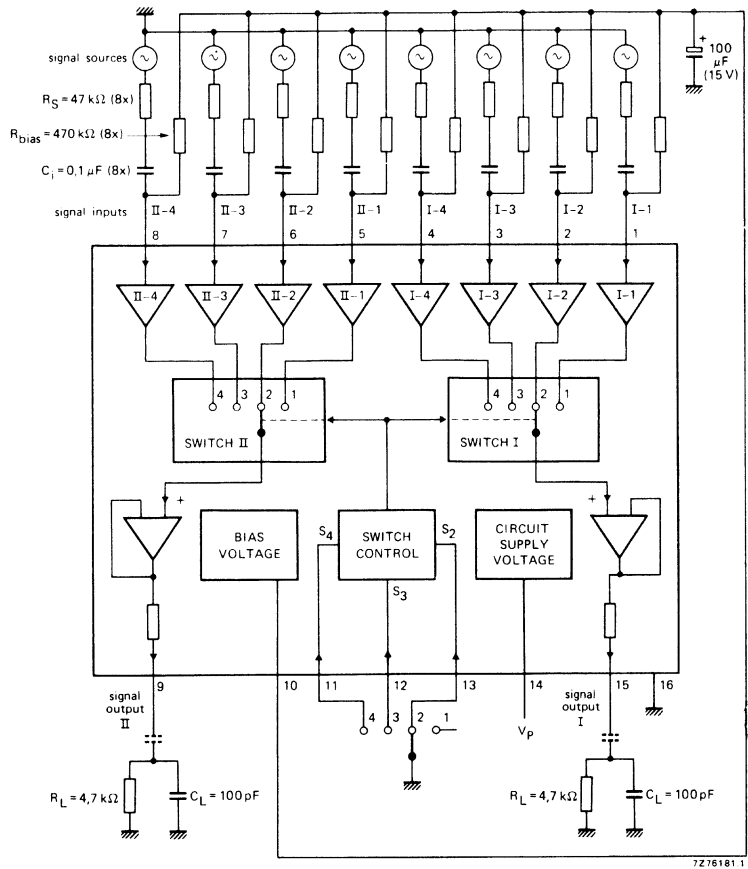
CD229



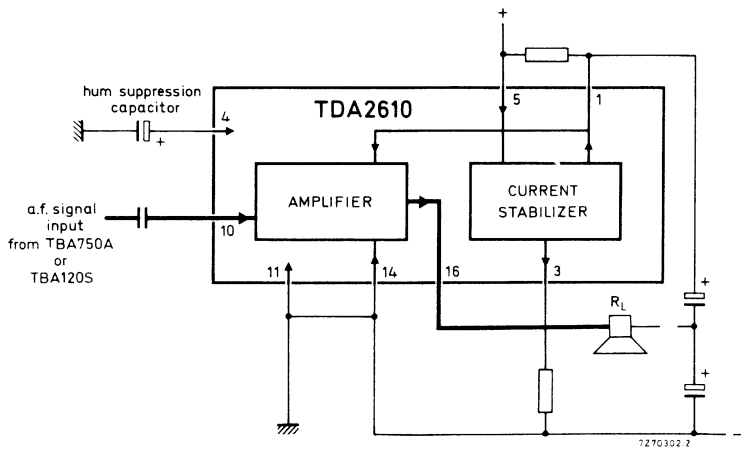
CD230



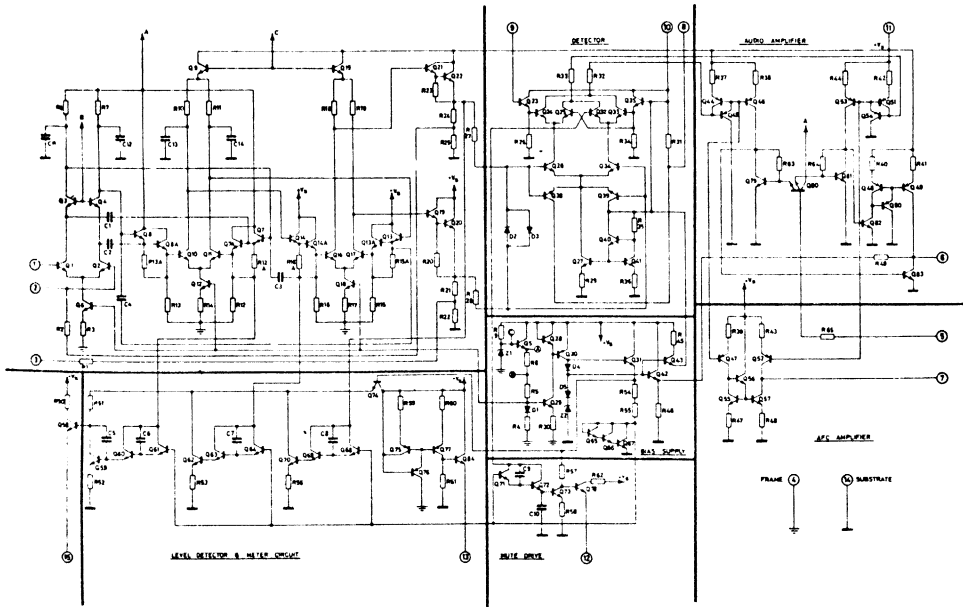
CD231



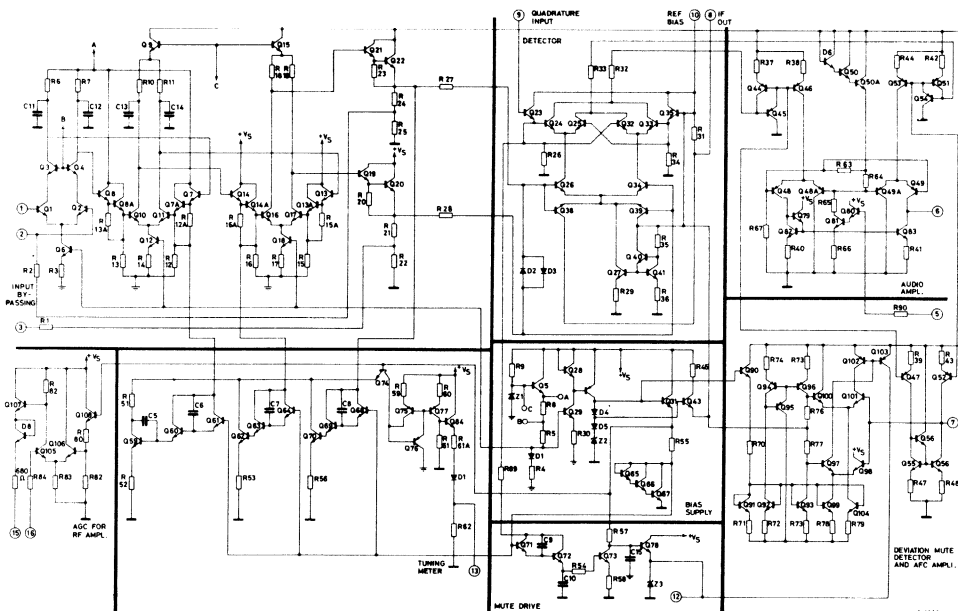
CD234



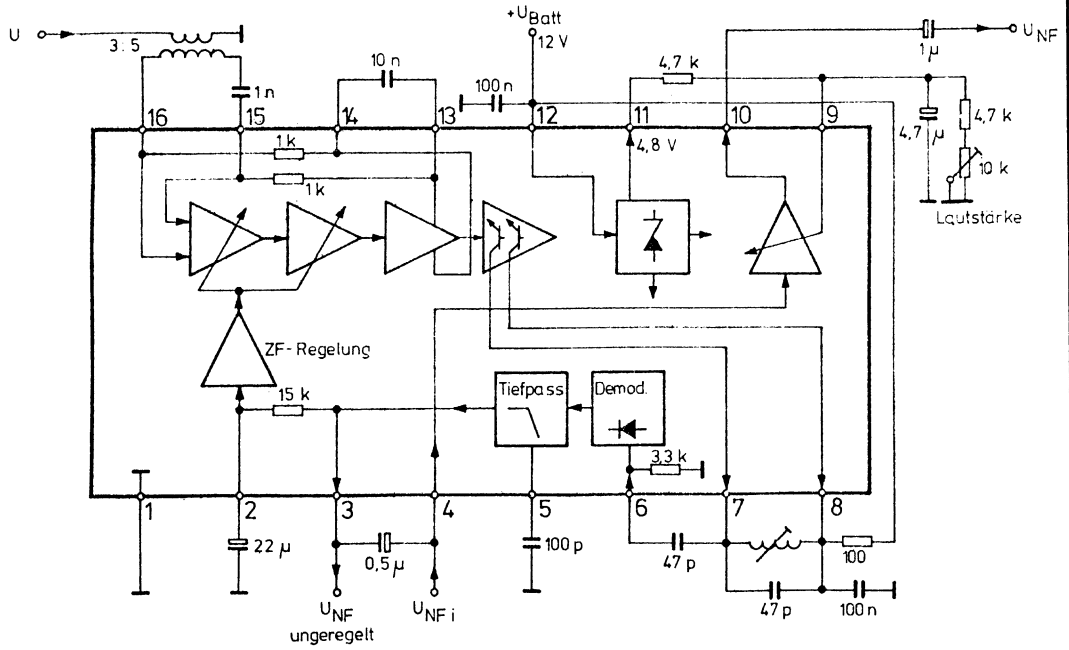
CD235A



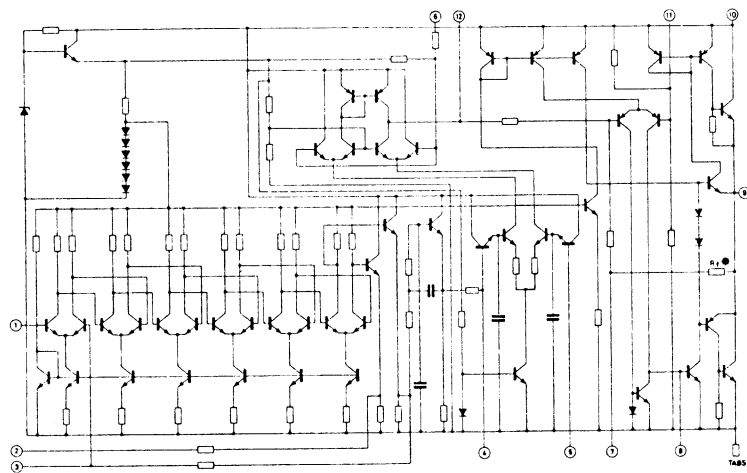
CD235B



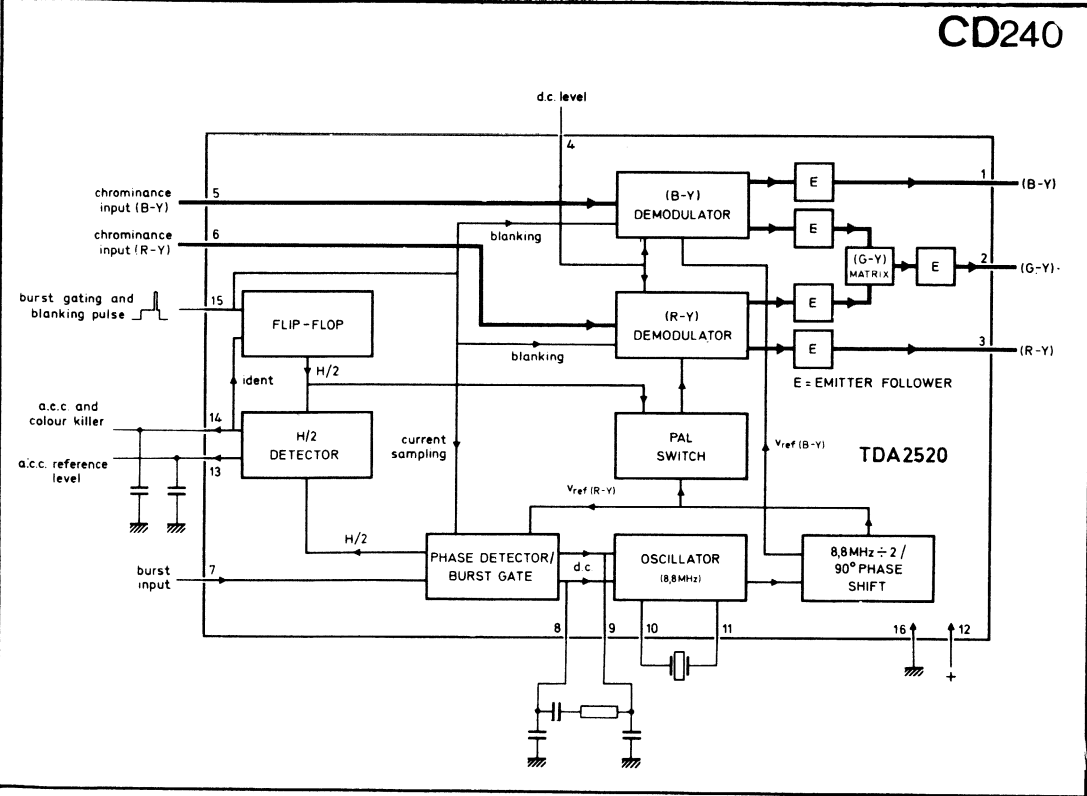
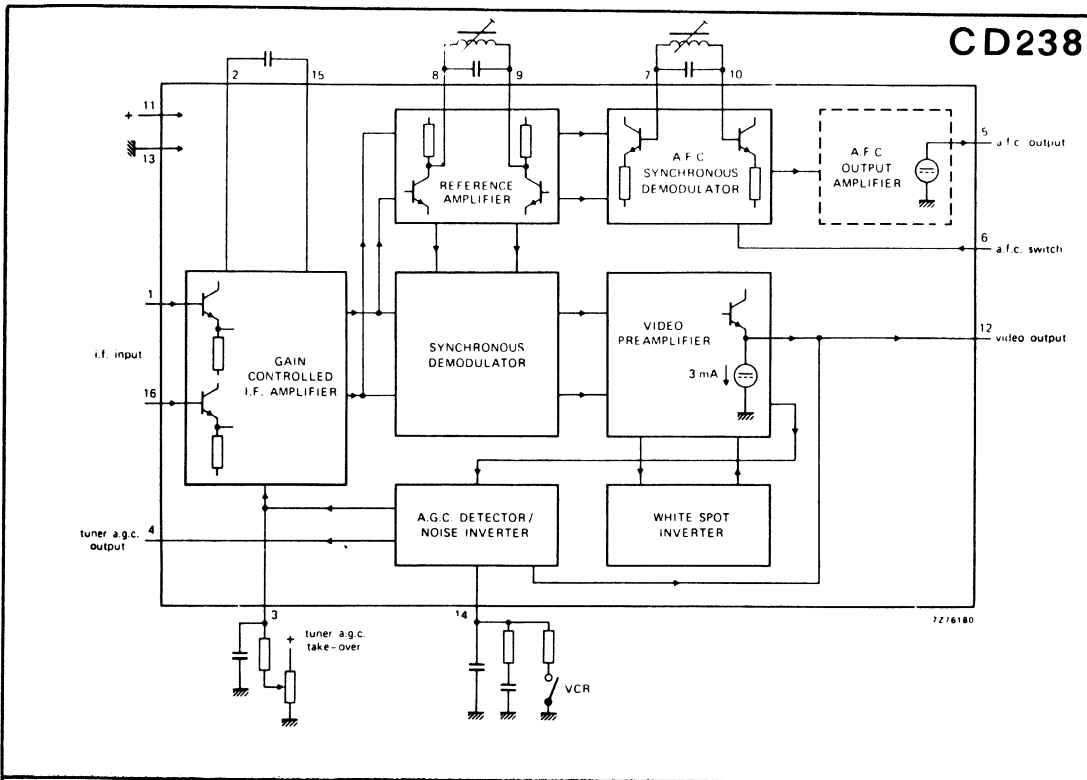
CD236



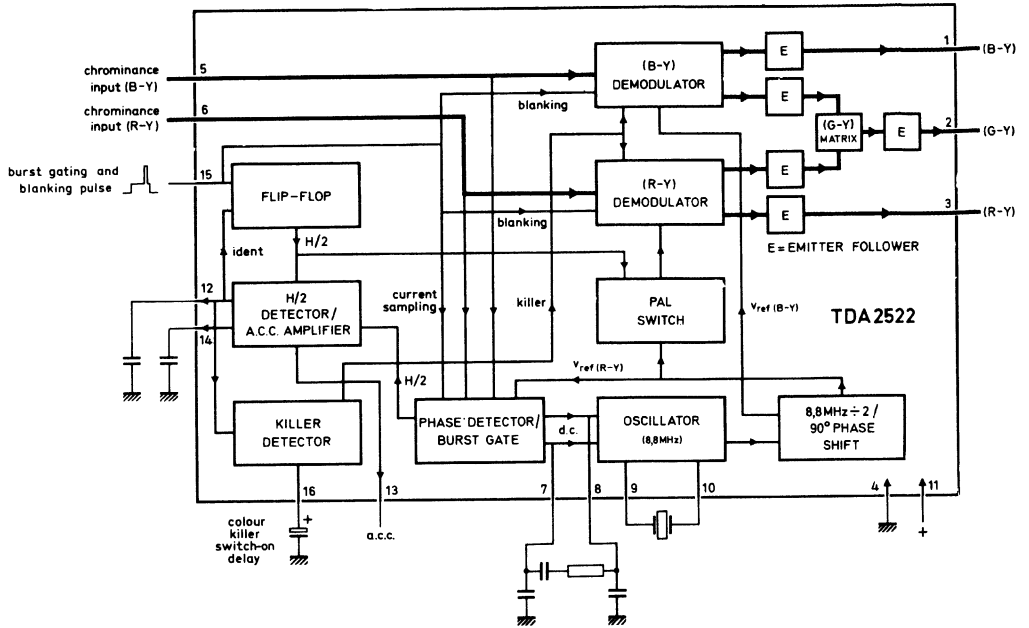
CD237



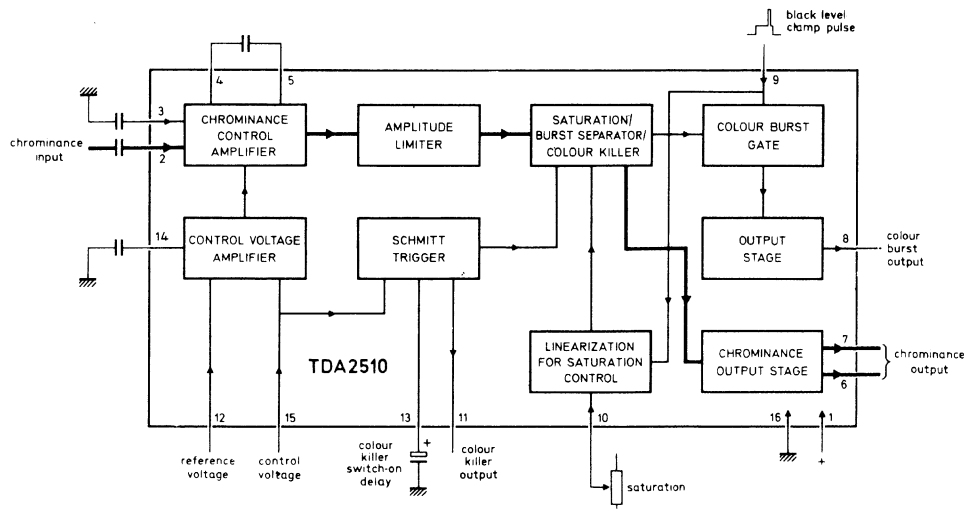
*no R_f for the TDA1190Z



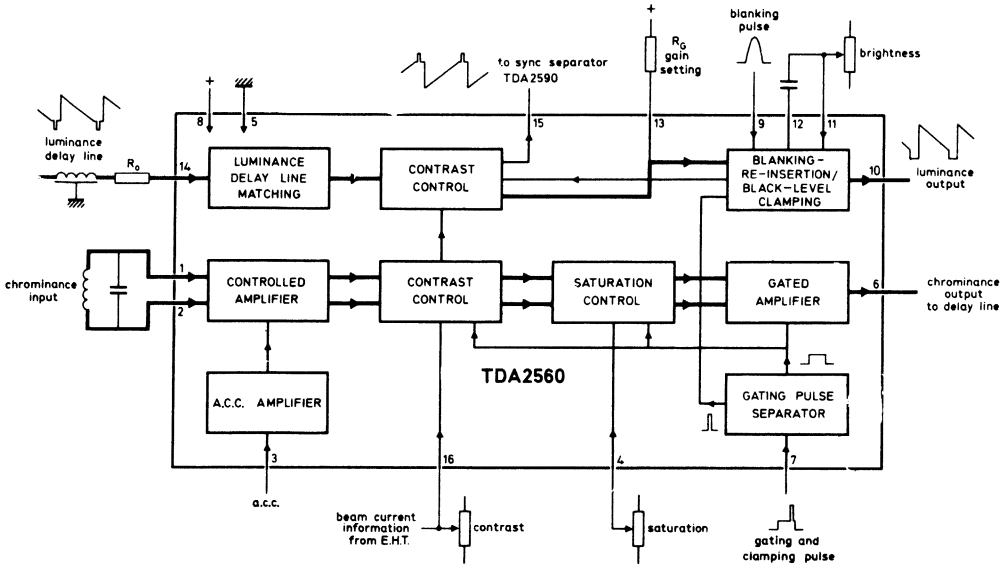
CD241



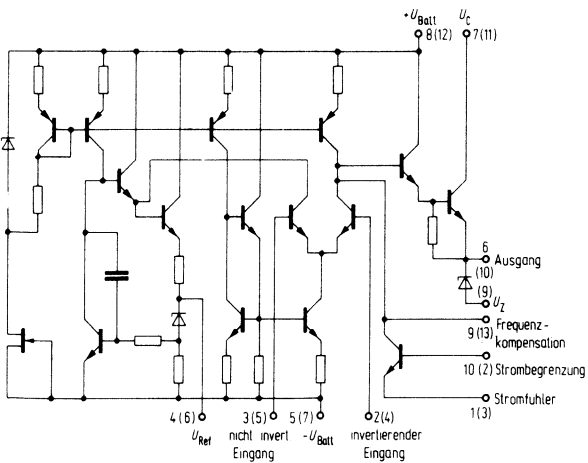
CD243



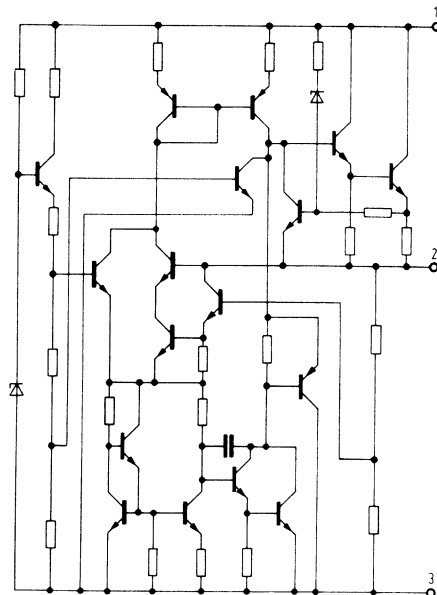
CD244



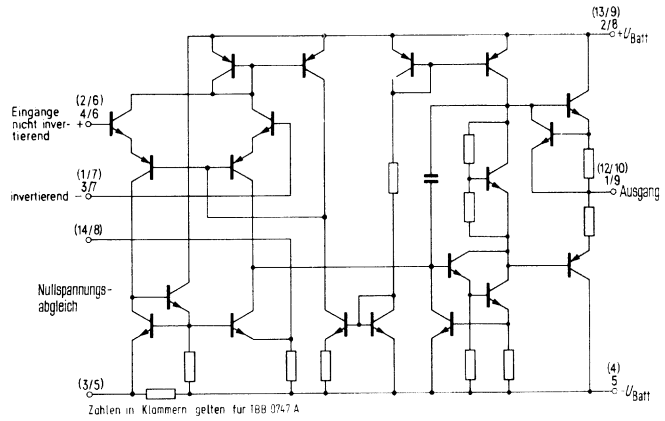
CD245



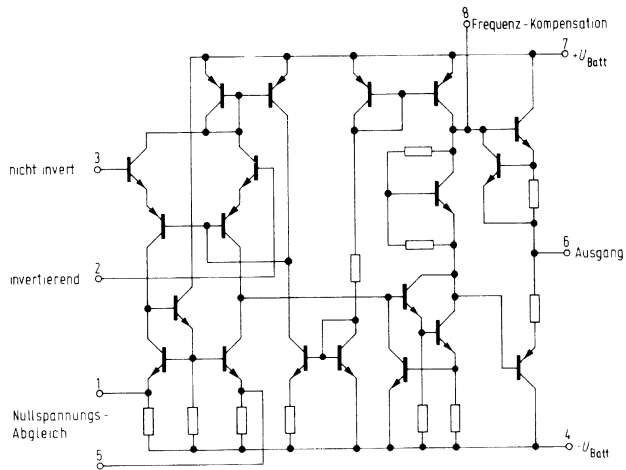
CD246



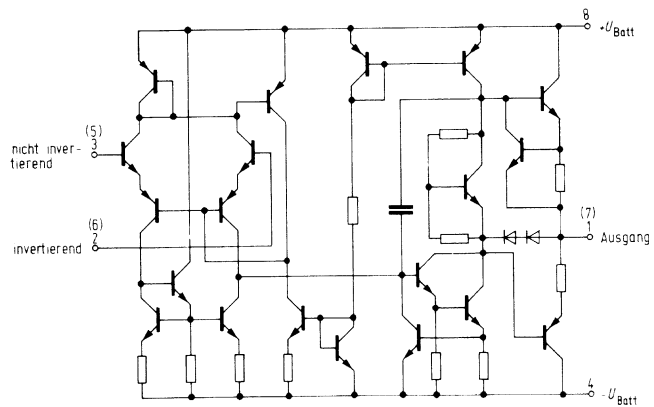
CD247



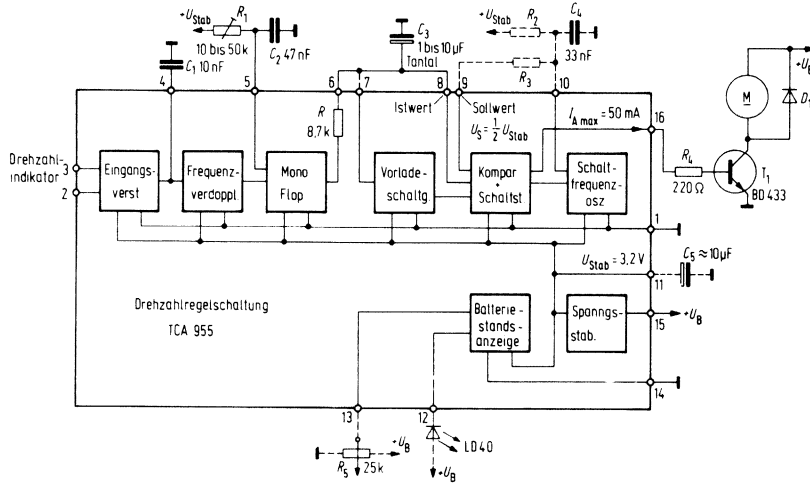
CD248



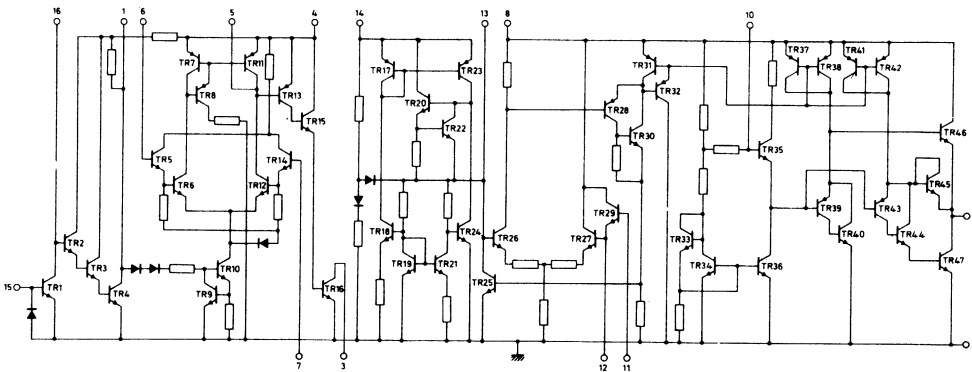
CD249



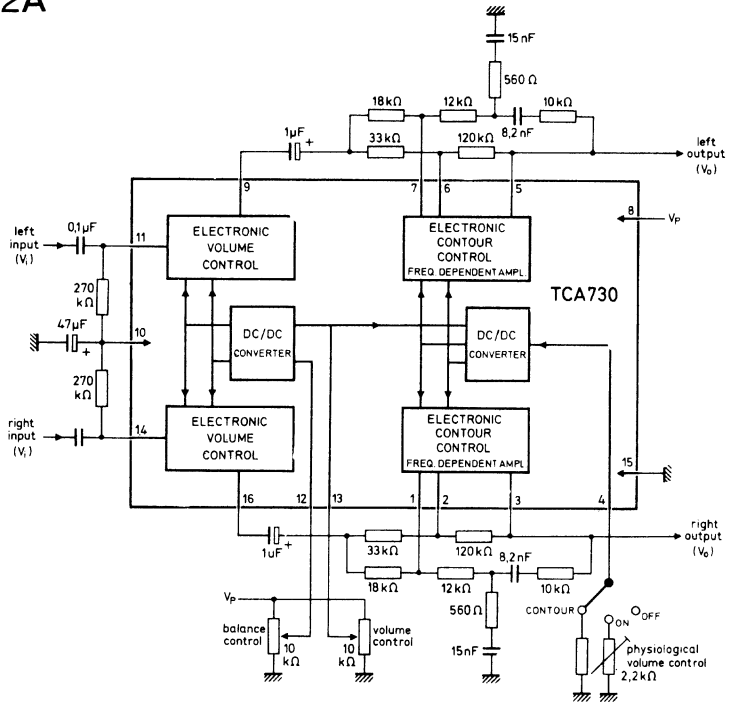
CD250



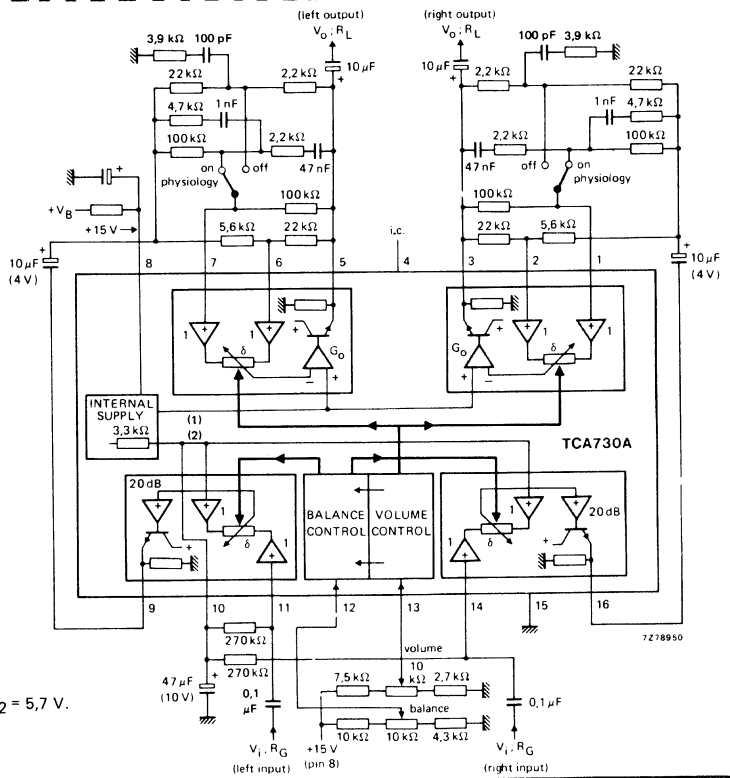
CD251



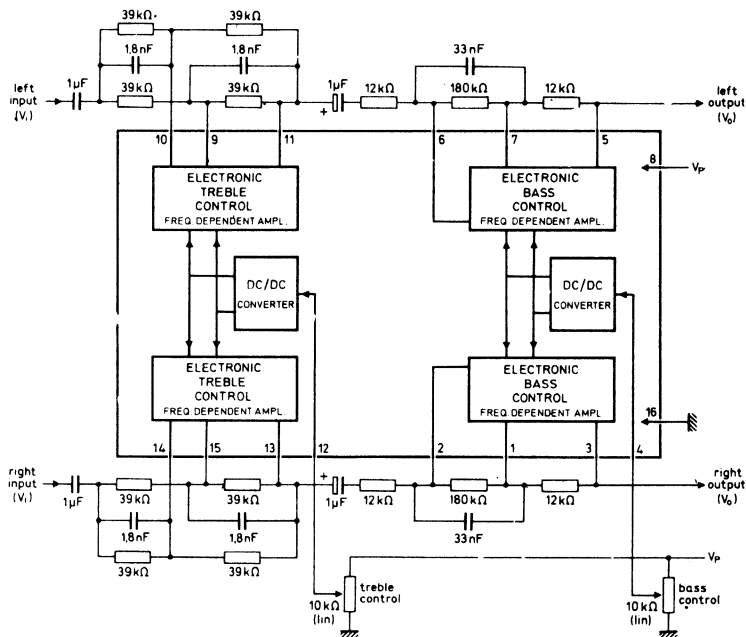
CD252A



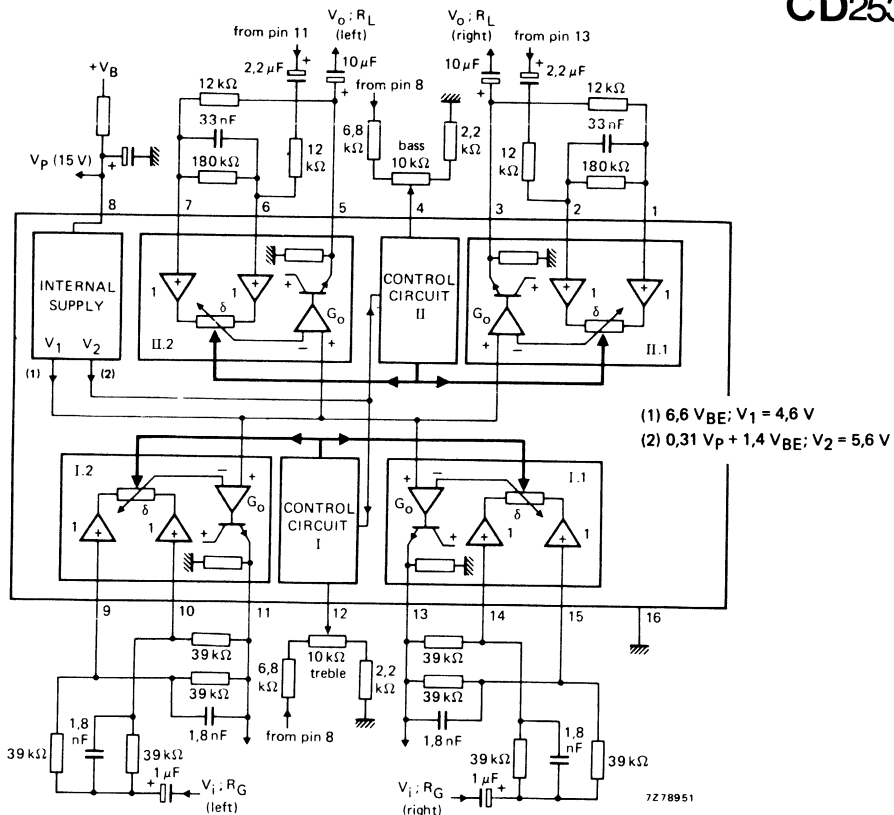
CD252B



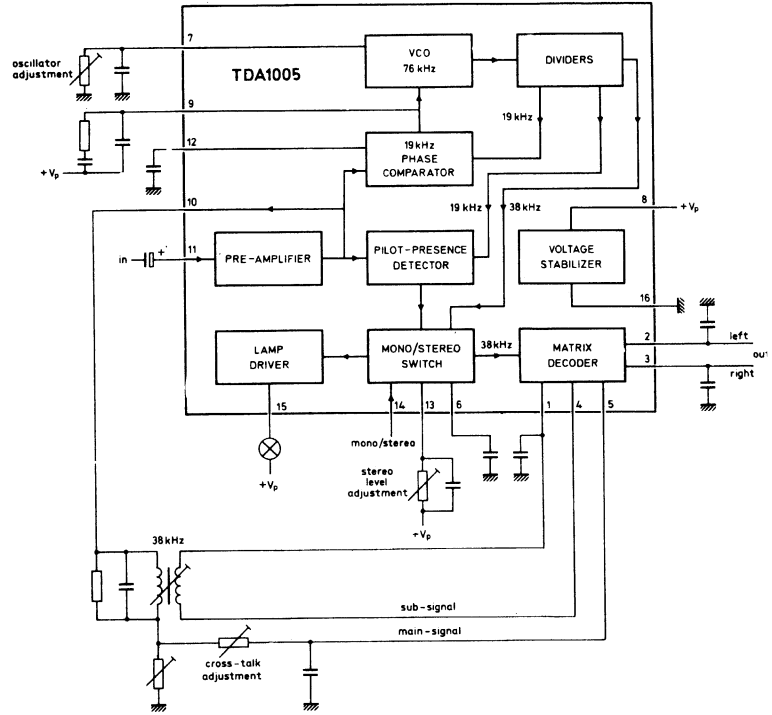
CD253A



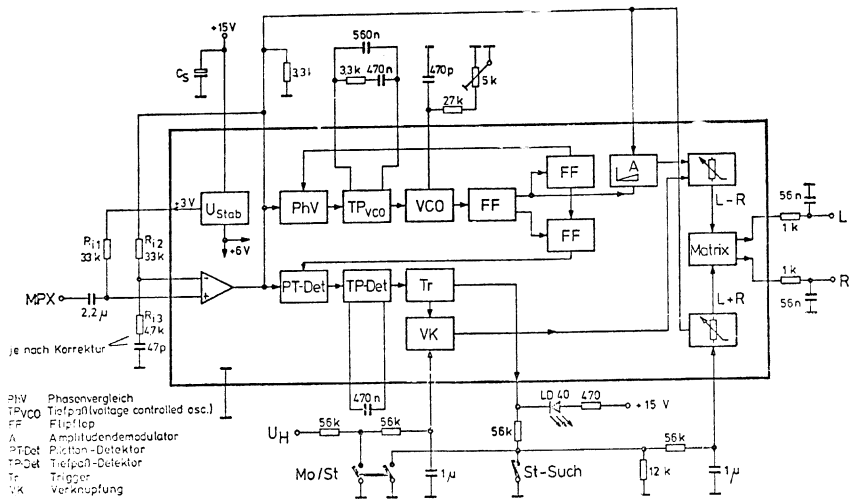
CD253B



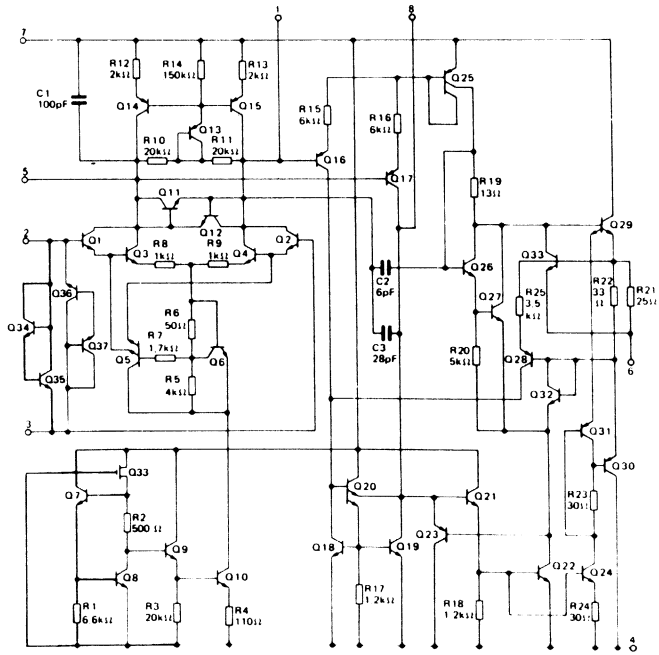
CD254



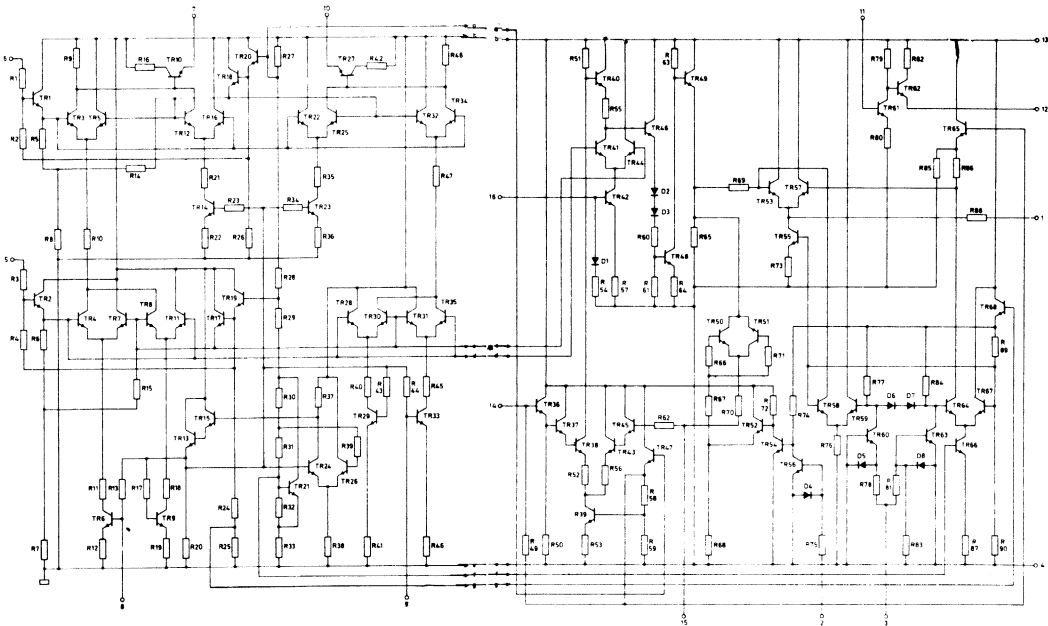
CD255



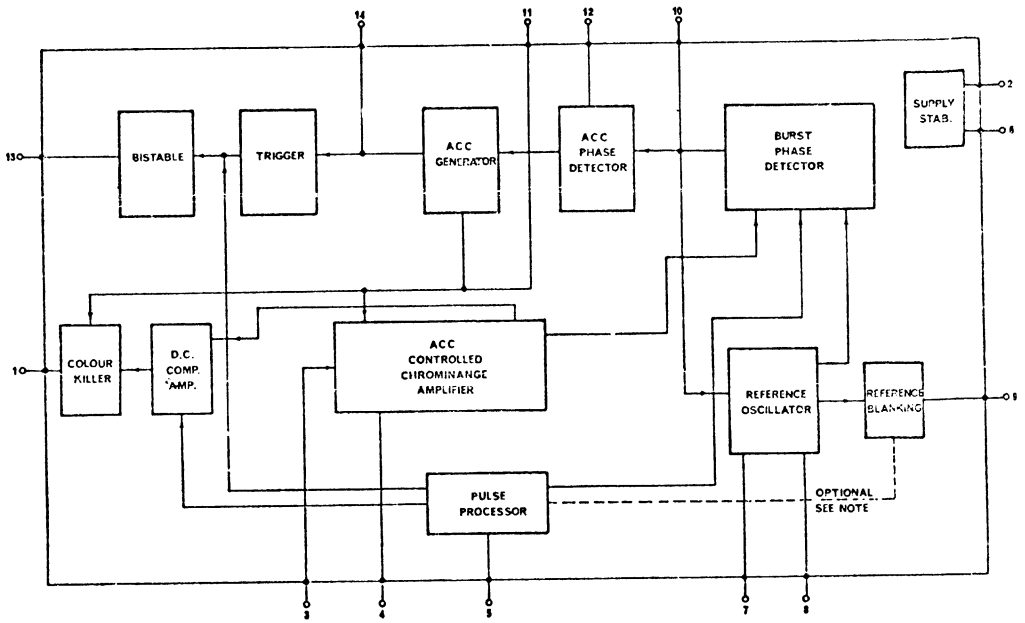
CD256



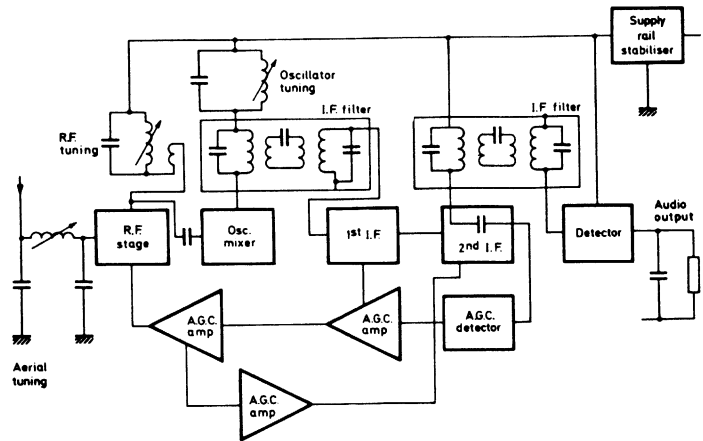
CD258



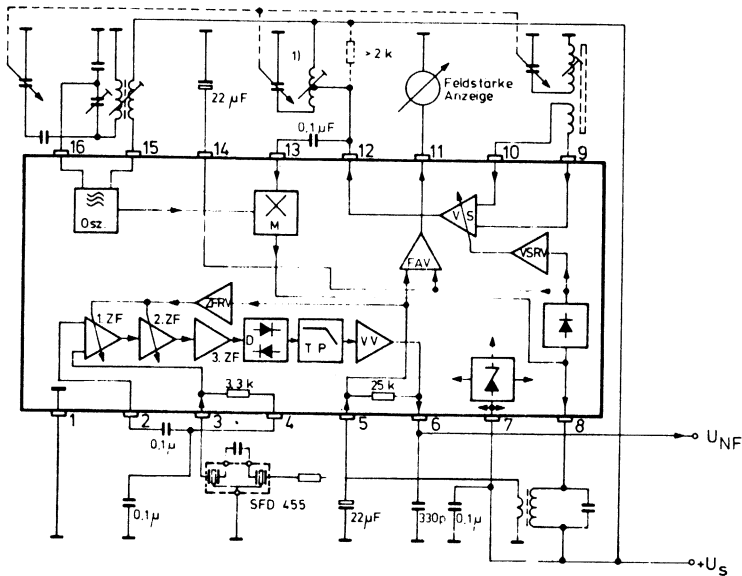
CD259



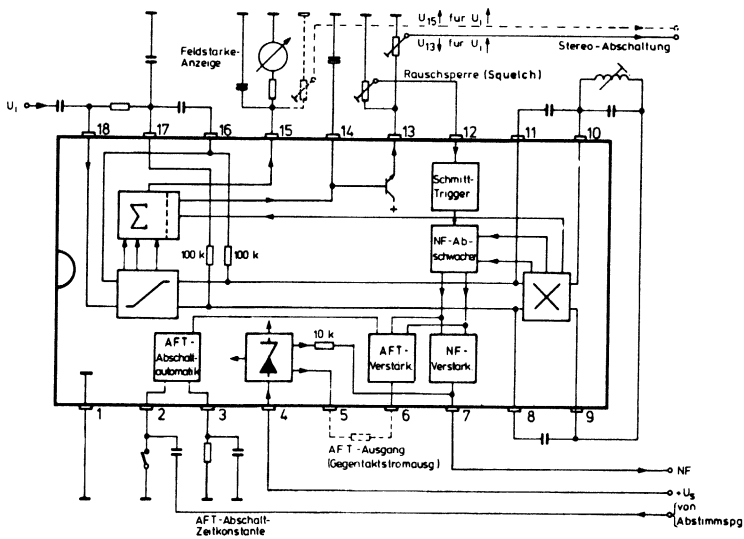
CD260



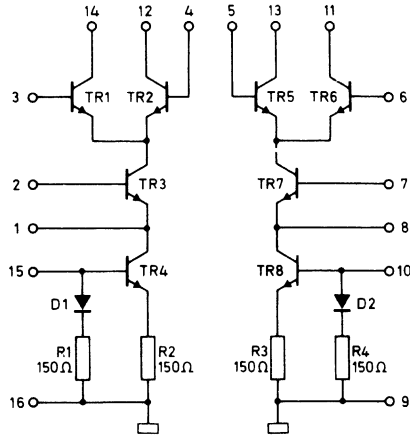
CD261



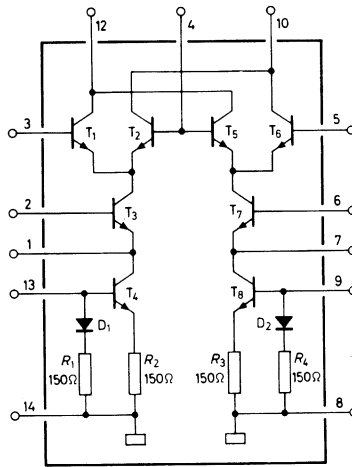
CD262



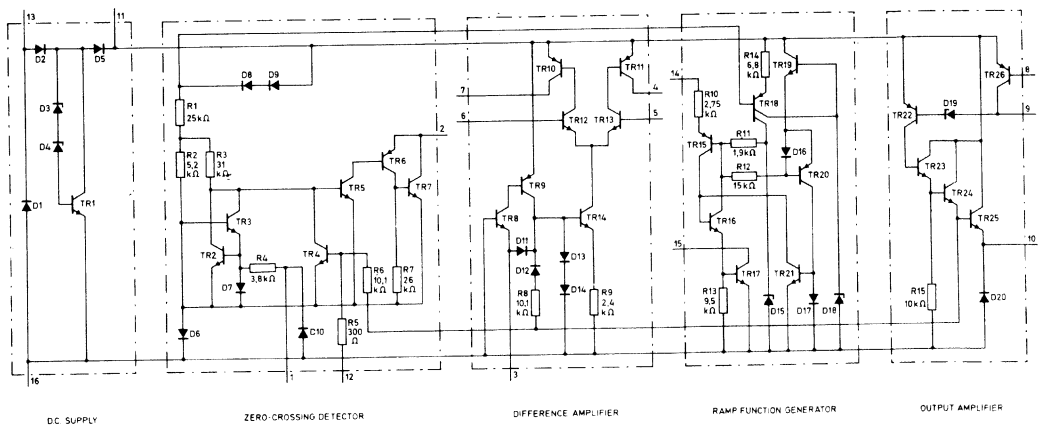
CD263A

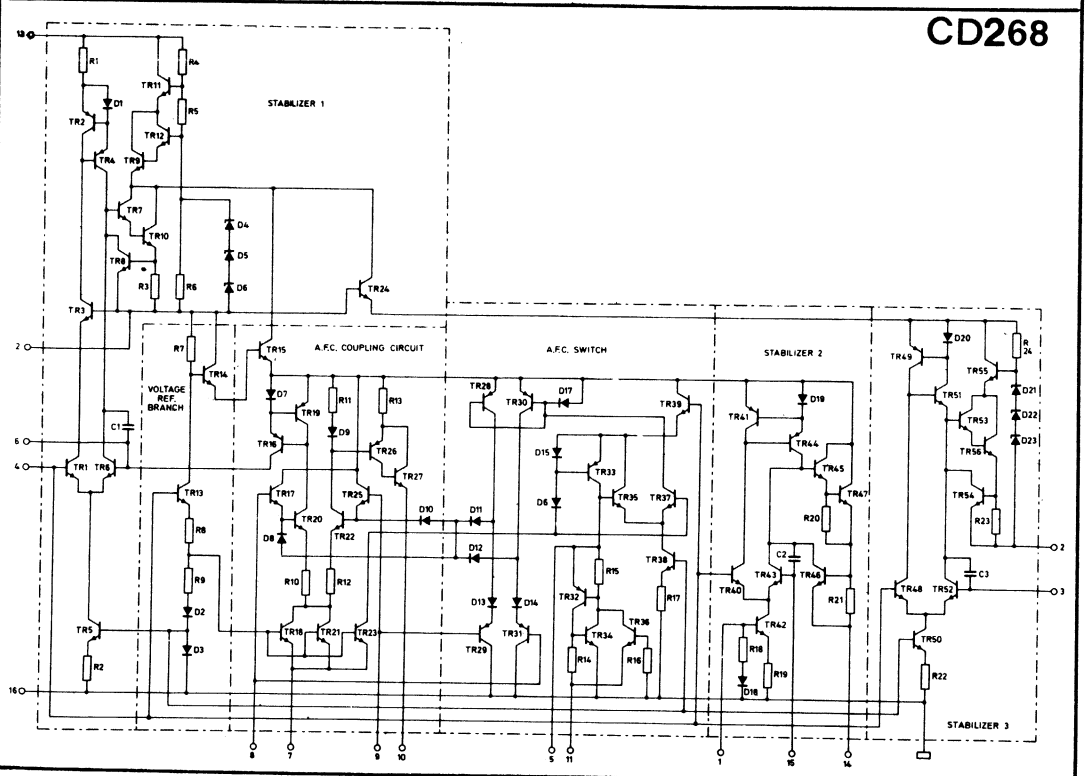
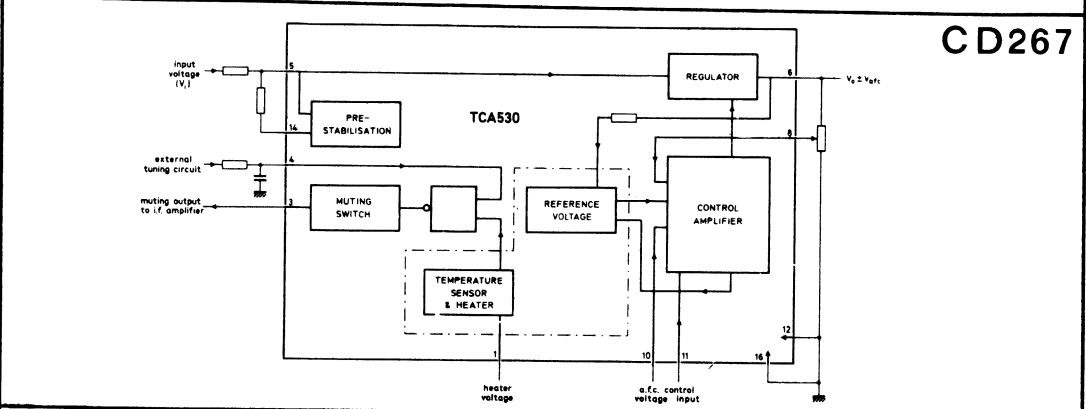
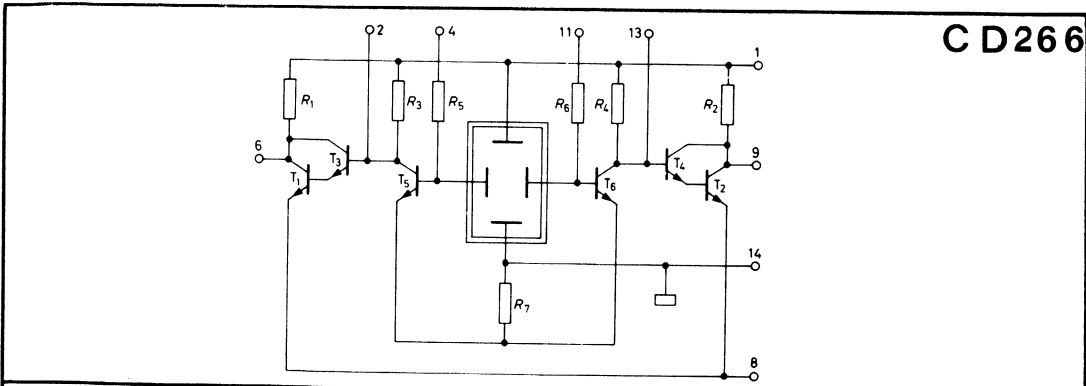


CD263B

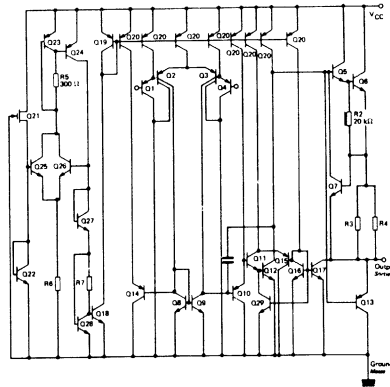


CD264

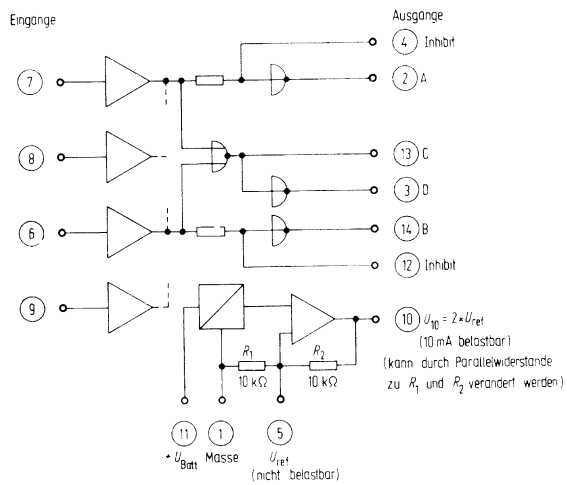




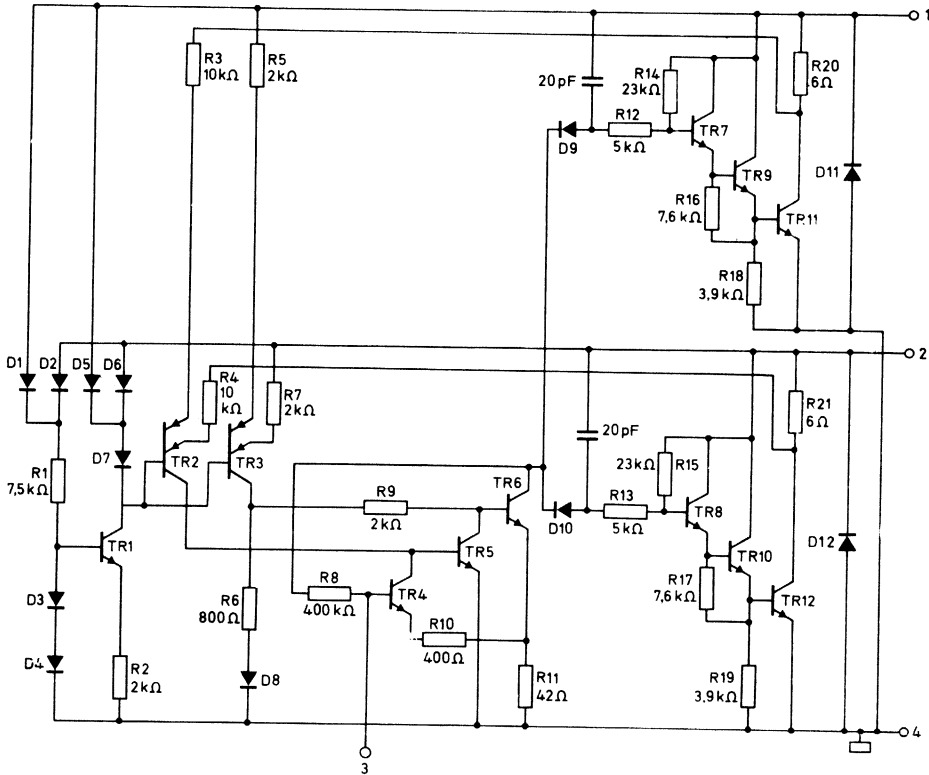
CD270



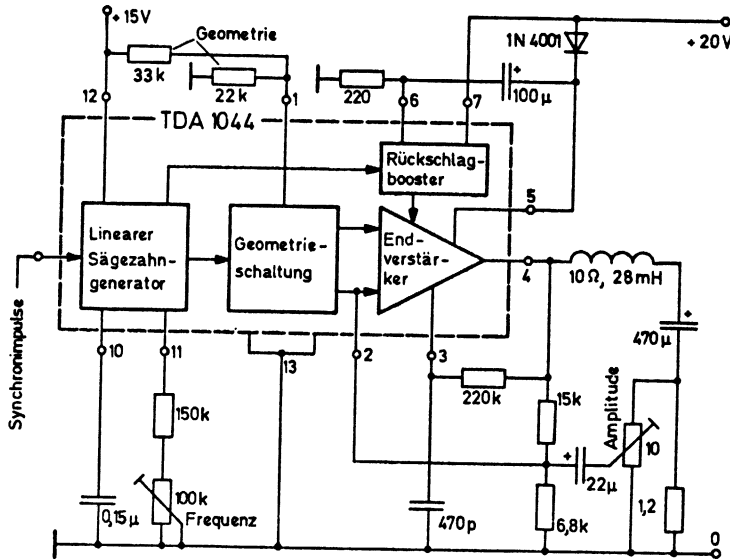
CD271



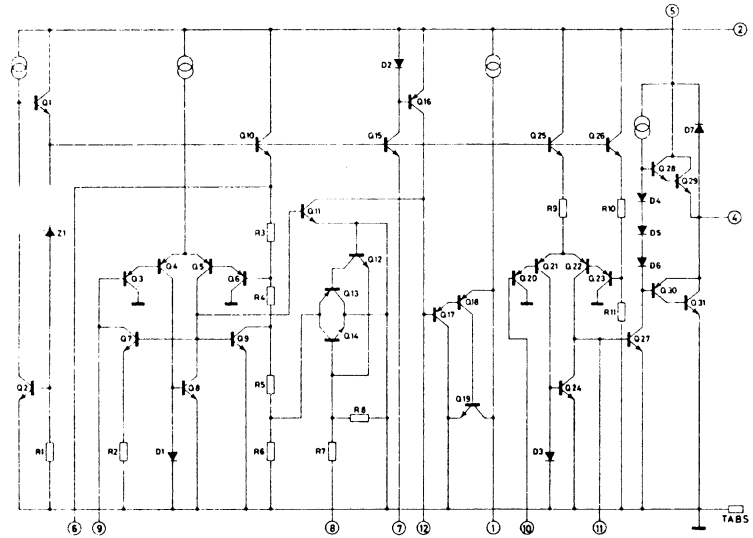
CD272



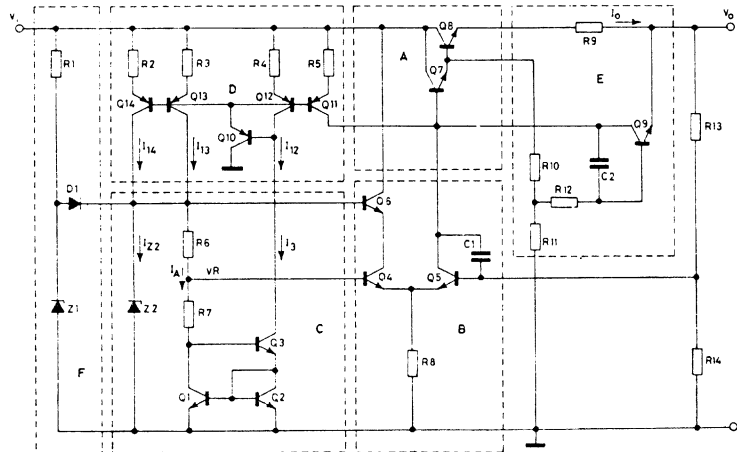
CD273



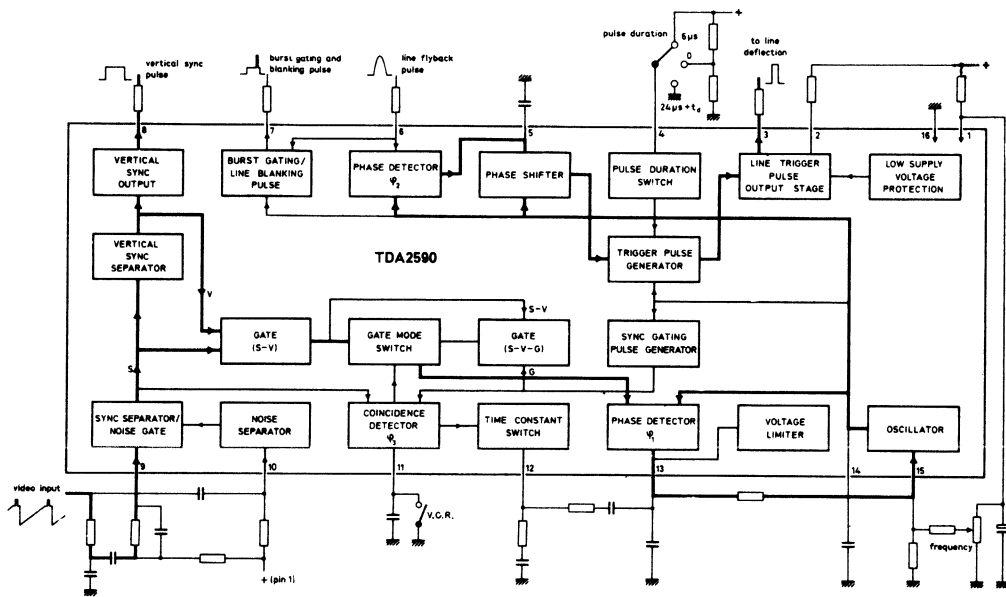
CD274



CD275

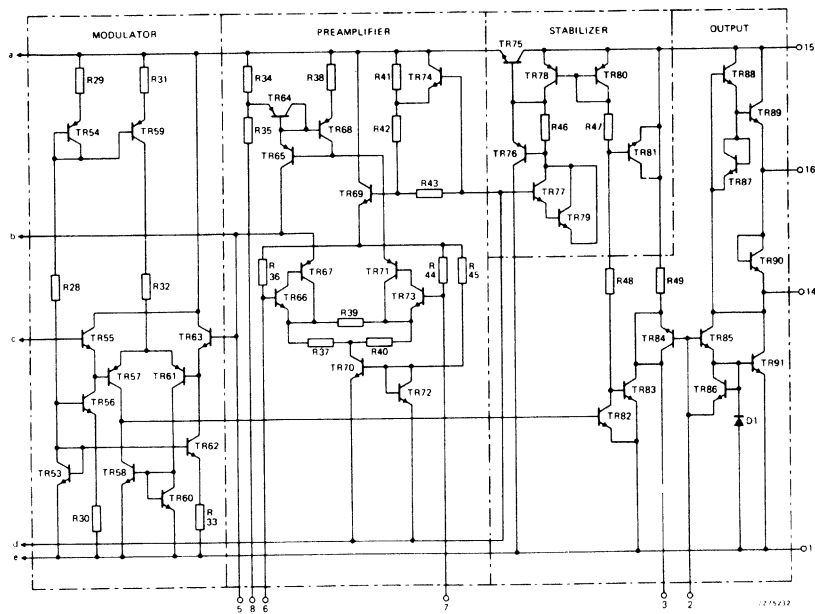
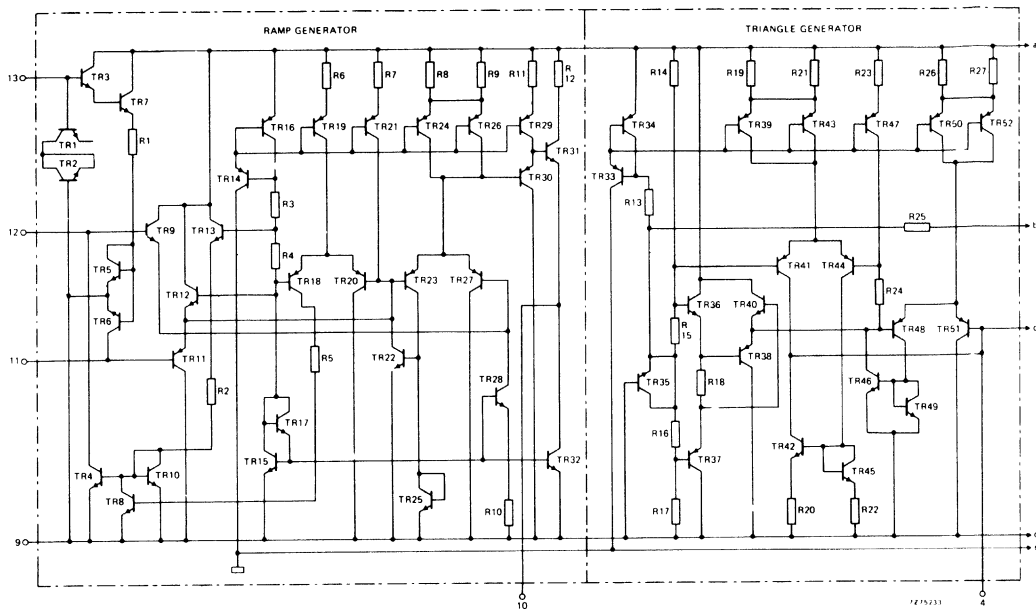


CD280

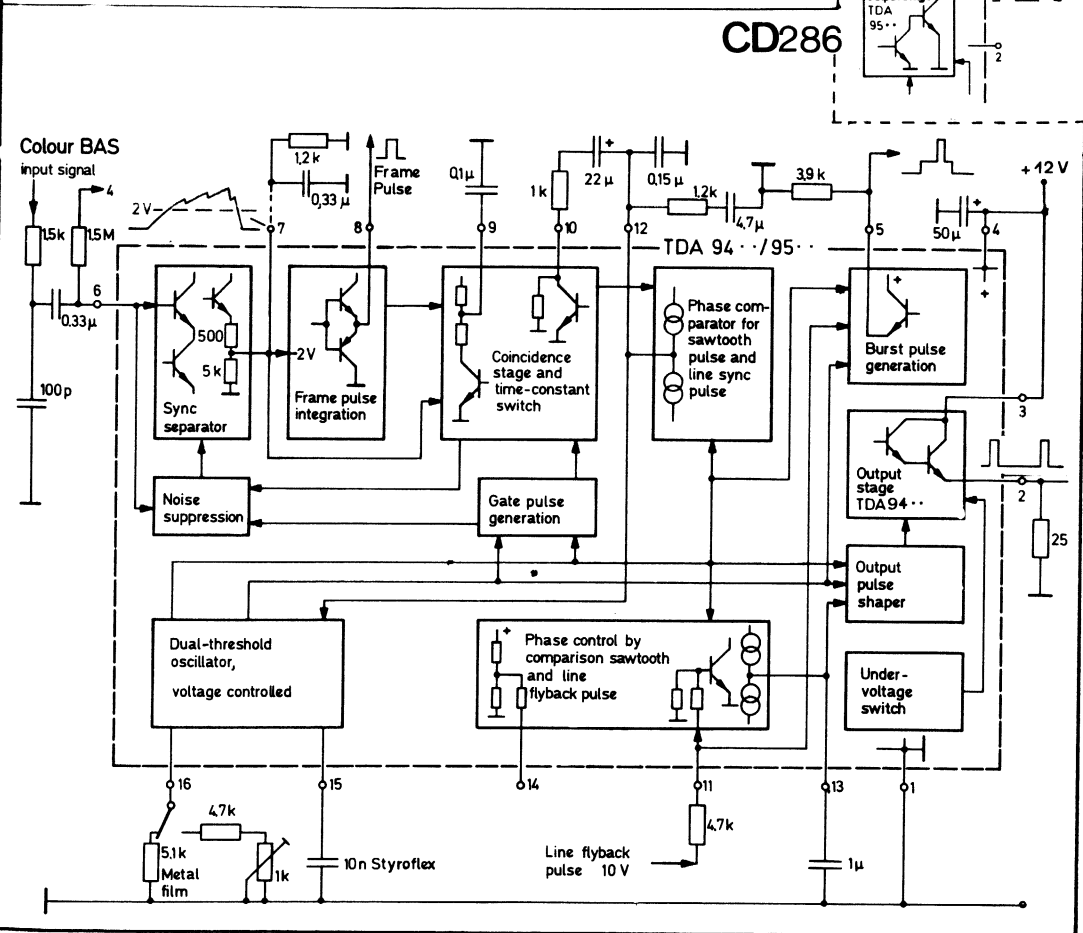
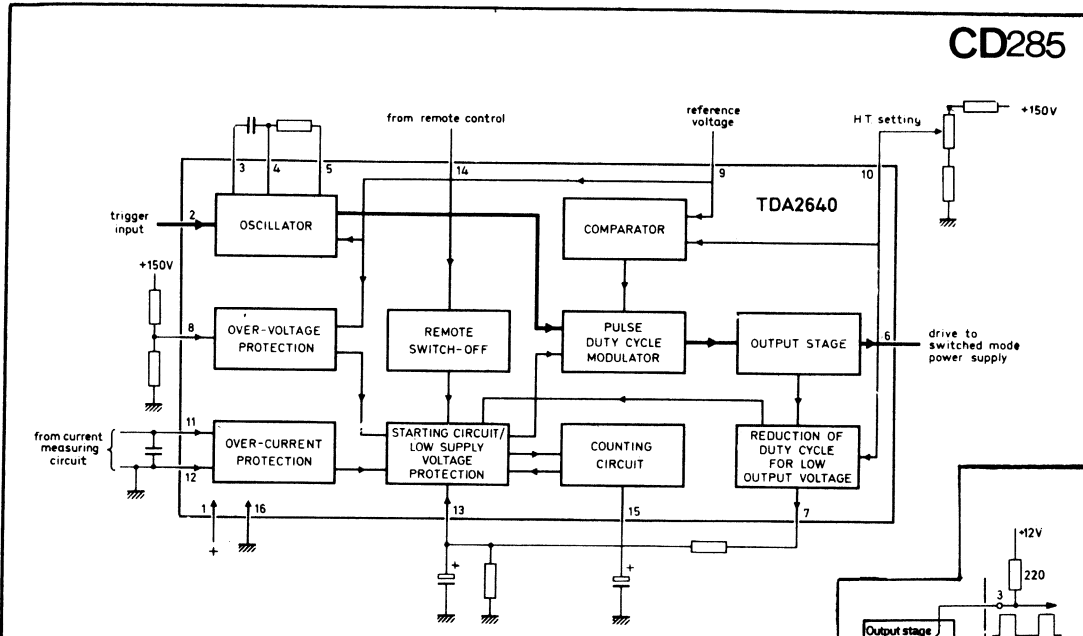


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder

CD281

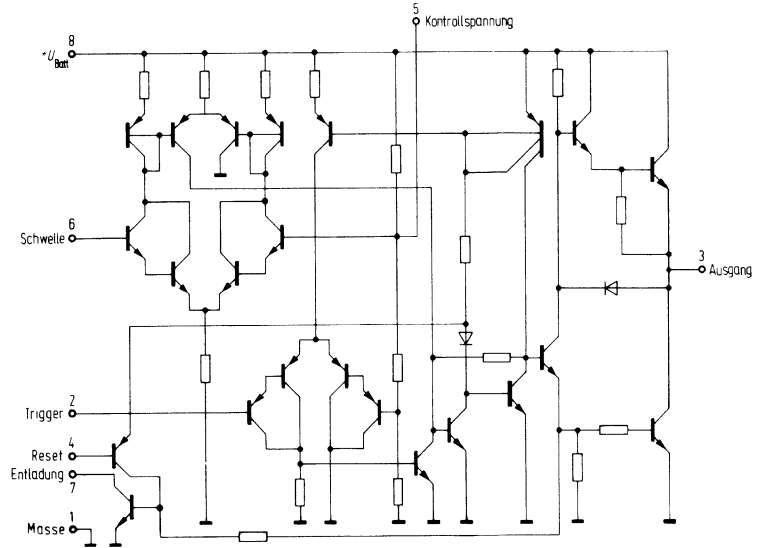


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder

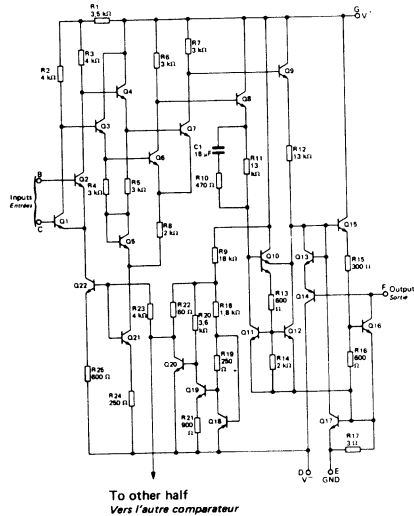


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBILDER

CD287 (1/2 TDB 0556A)

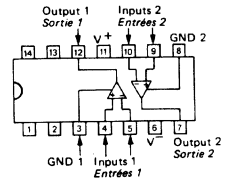


CD288



TO-116
DUAL IN LINE
PACKAGE
Boîtier enfichable

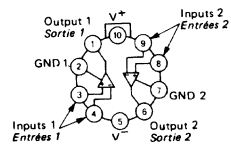
Top view
Vue de dessus



TDC0119-DG, TDB0119-DP, TDE0119-DP

TO-100
METAL CAN
Boîtier métal

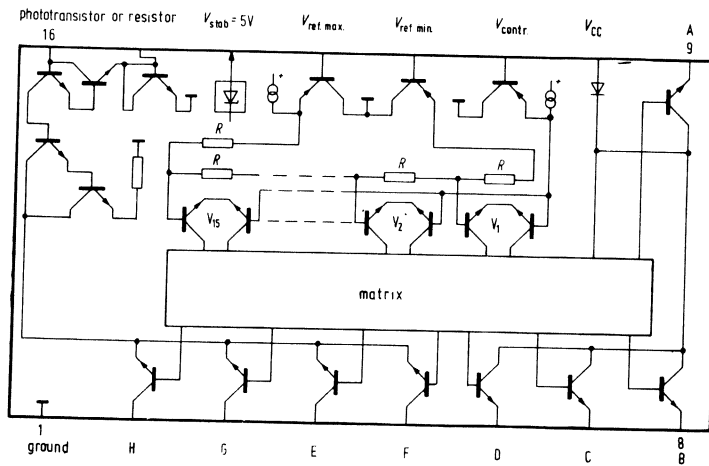
Top view
Vue de dessus



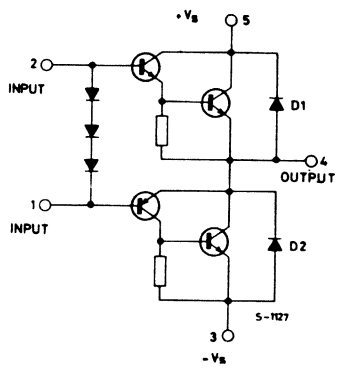
TDC0119-CM, TDB0119-CM, TDE0119-CM

CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder

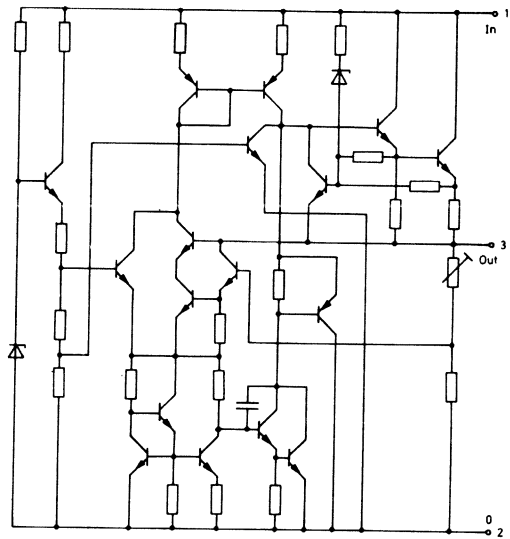
CD289



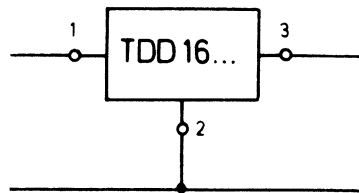
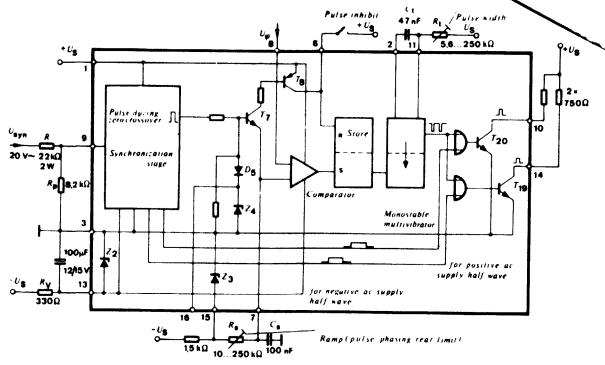
CD290



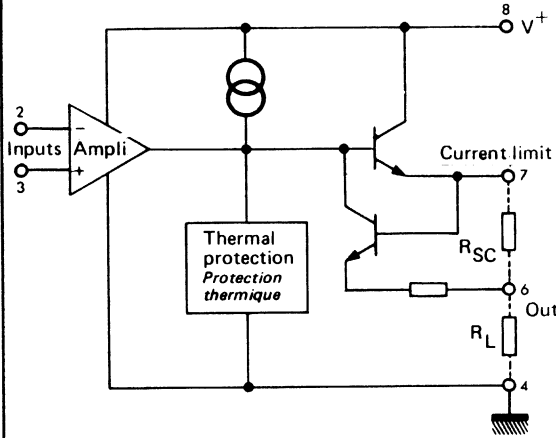
CD291



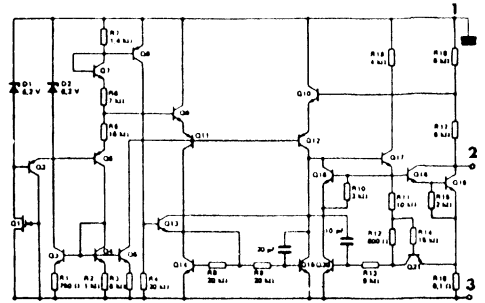
CD292



CD294

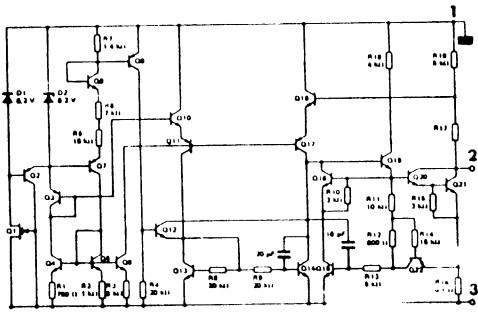


CD295



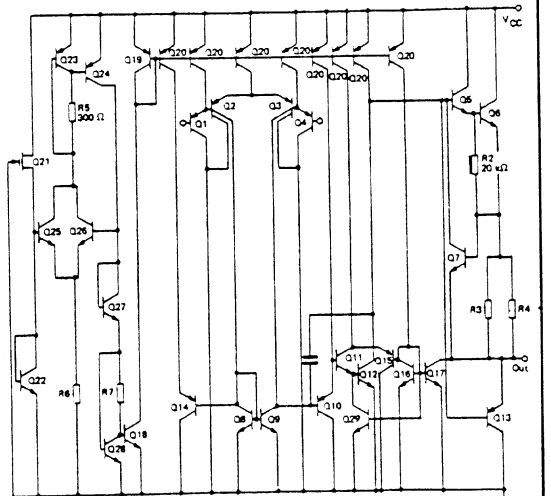
-5 V & -5,2 V

CD296

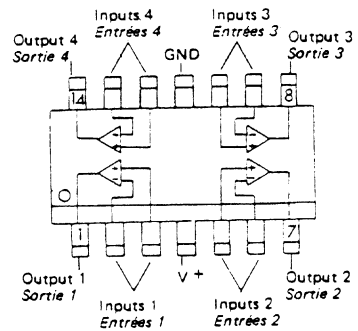
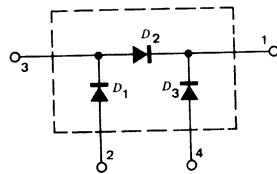


-12 V & -15 V

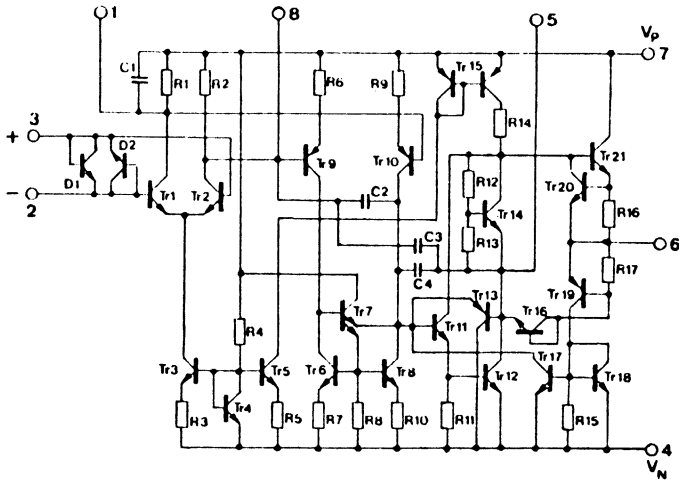
CD297



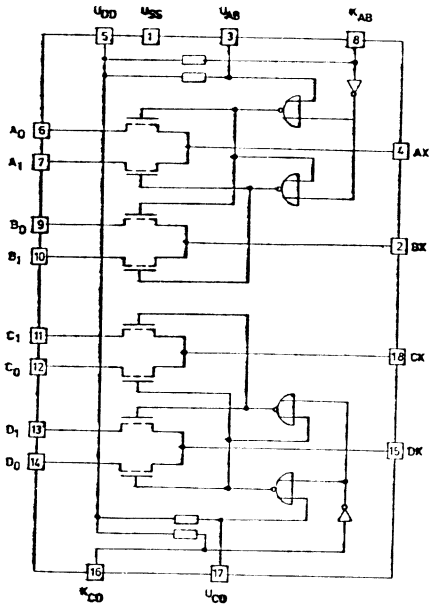
CD298



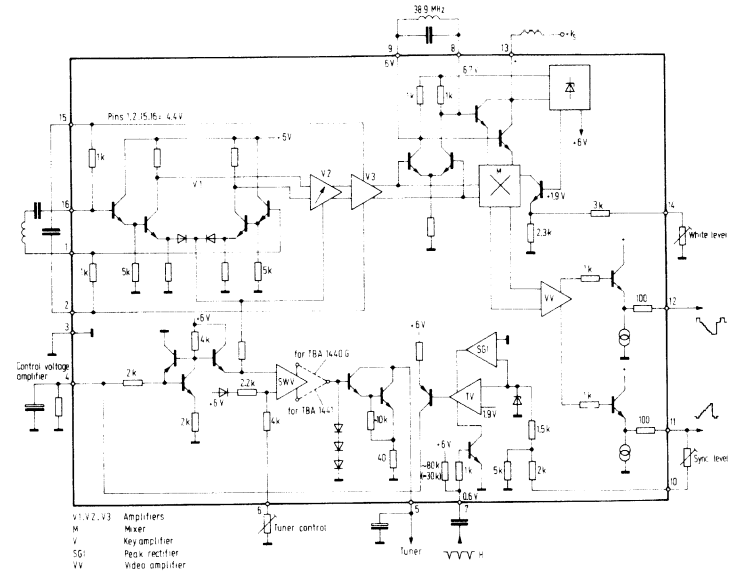
CD304



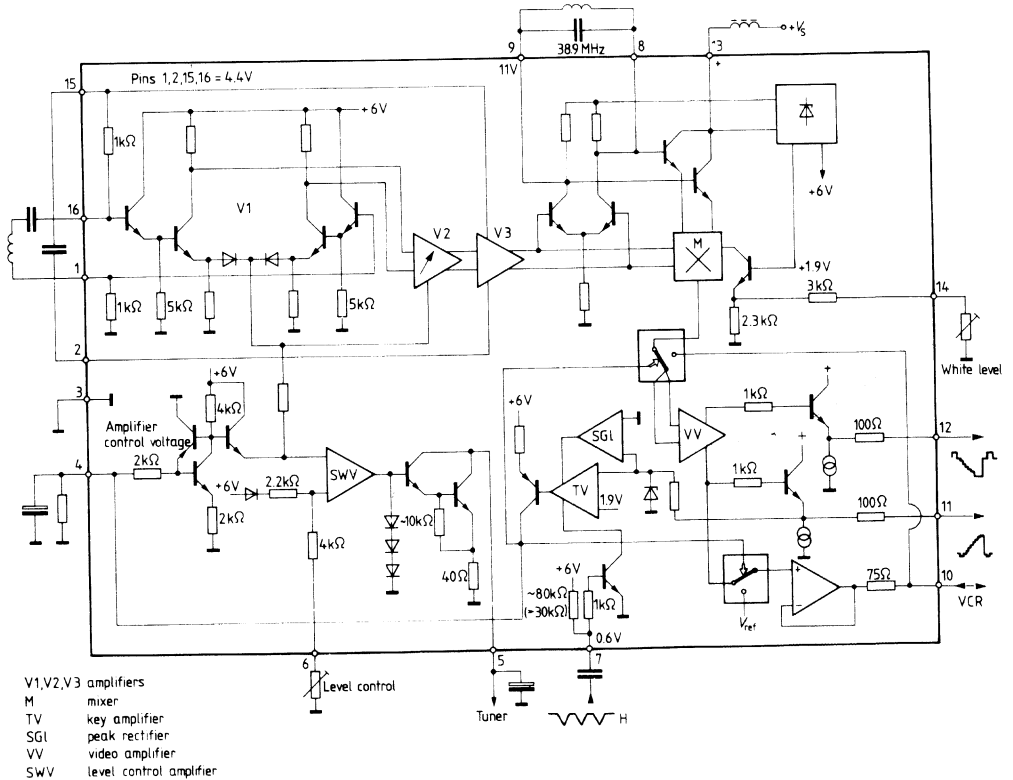
CD310



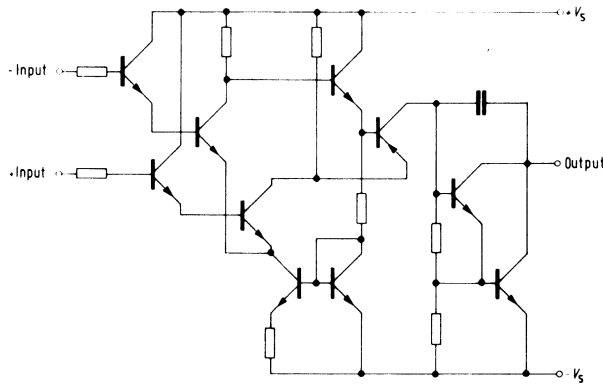
CD312A



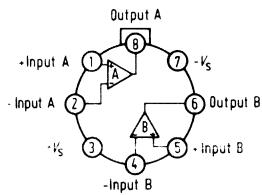
CD312B



CD314/315

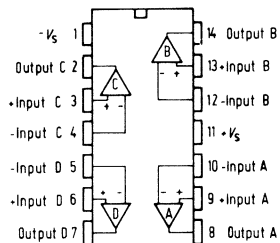
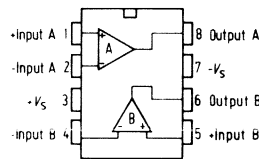


TBB 2331, TBC 2332, TBE 2335



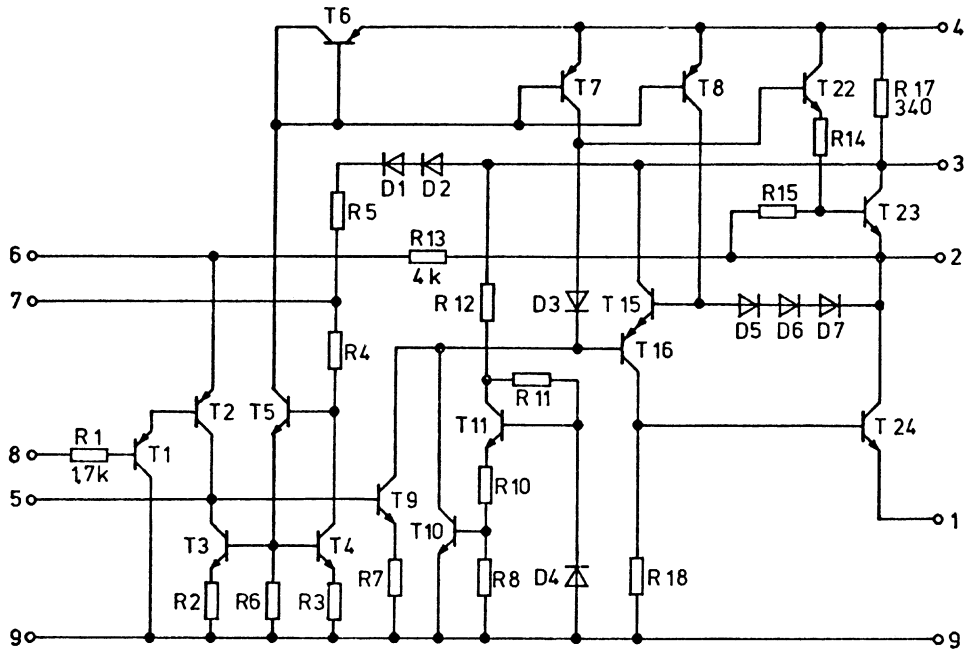
CD314

TBB 2331 B, TBE 2335 B

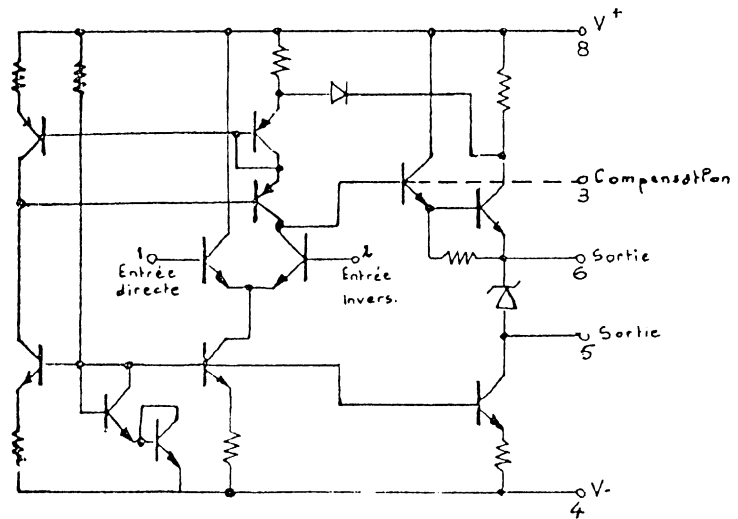


CD315

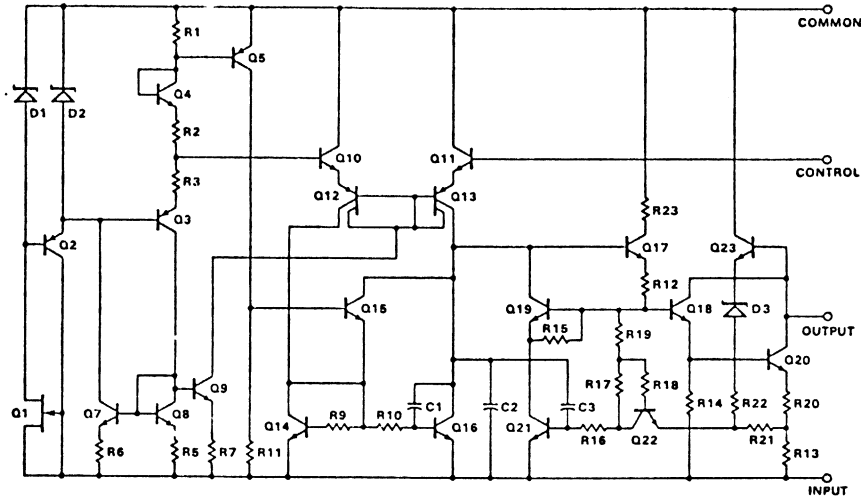
CD317



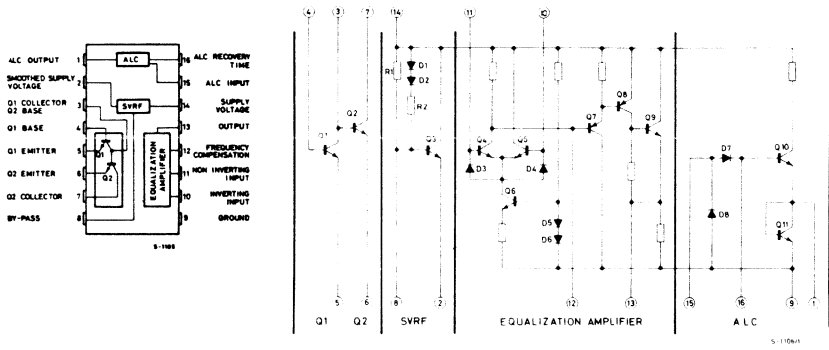
CD318



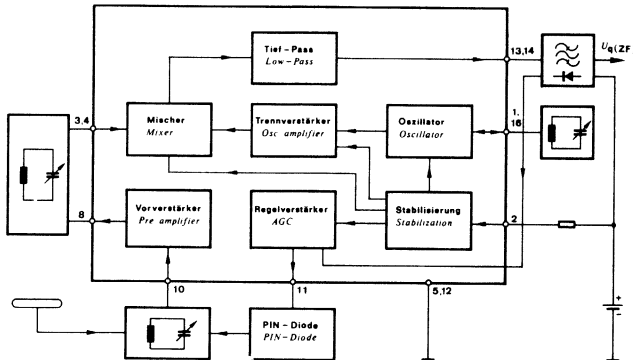
CD320



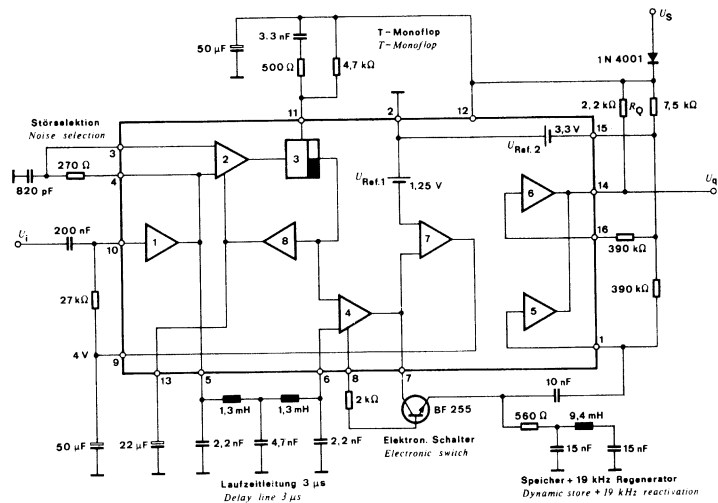
CD323



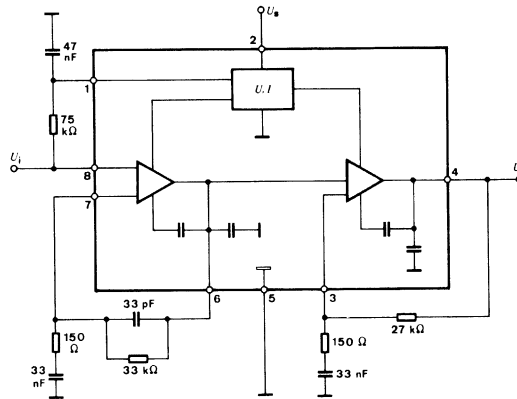
CD324



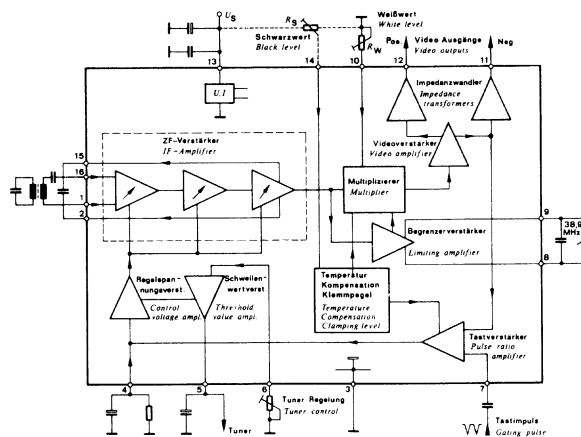
CD325



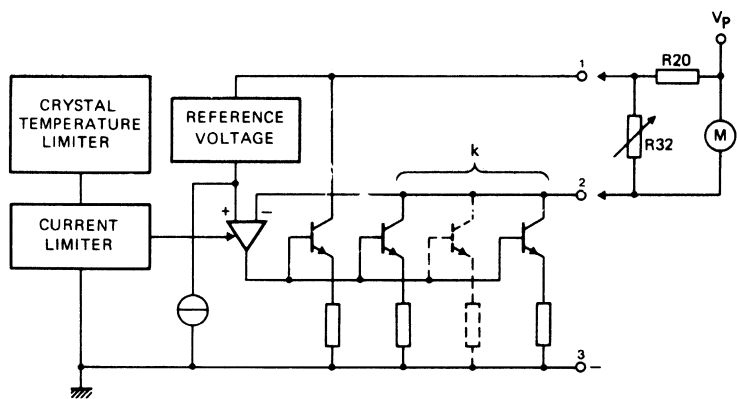
CD326

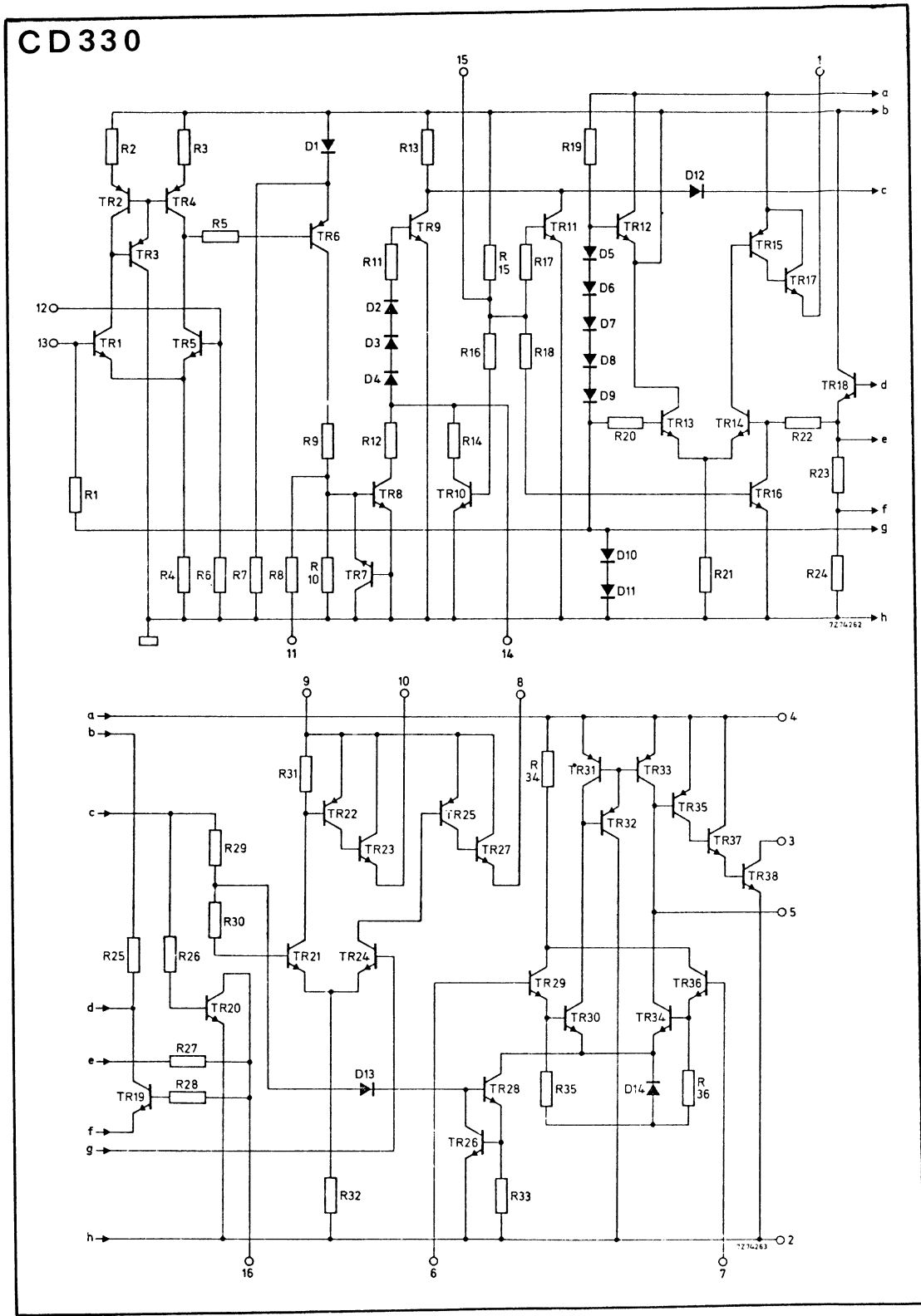


CD327

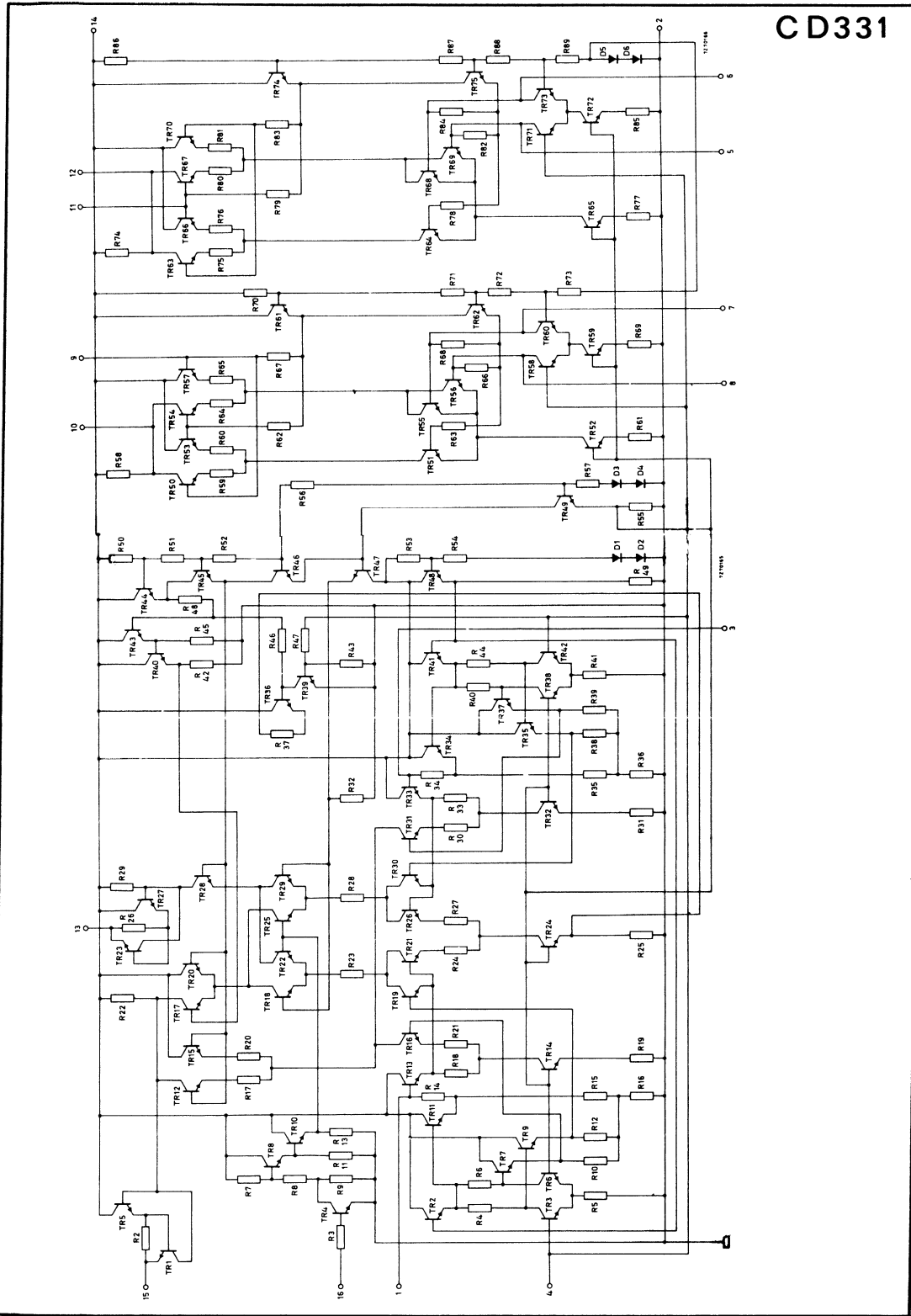


CD329

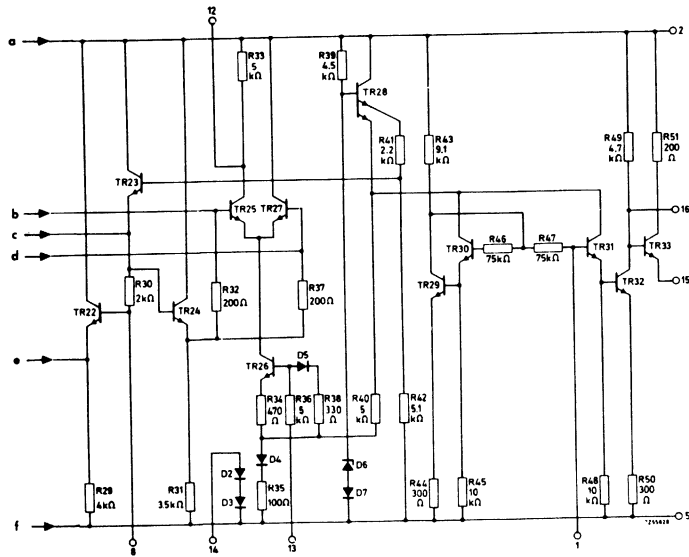
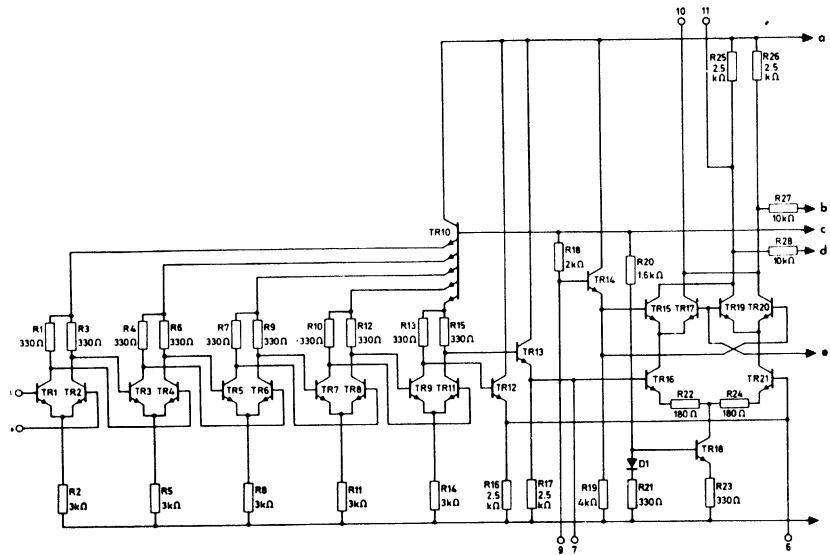




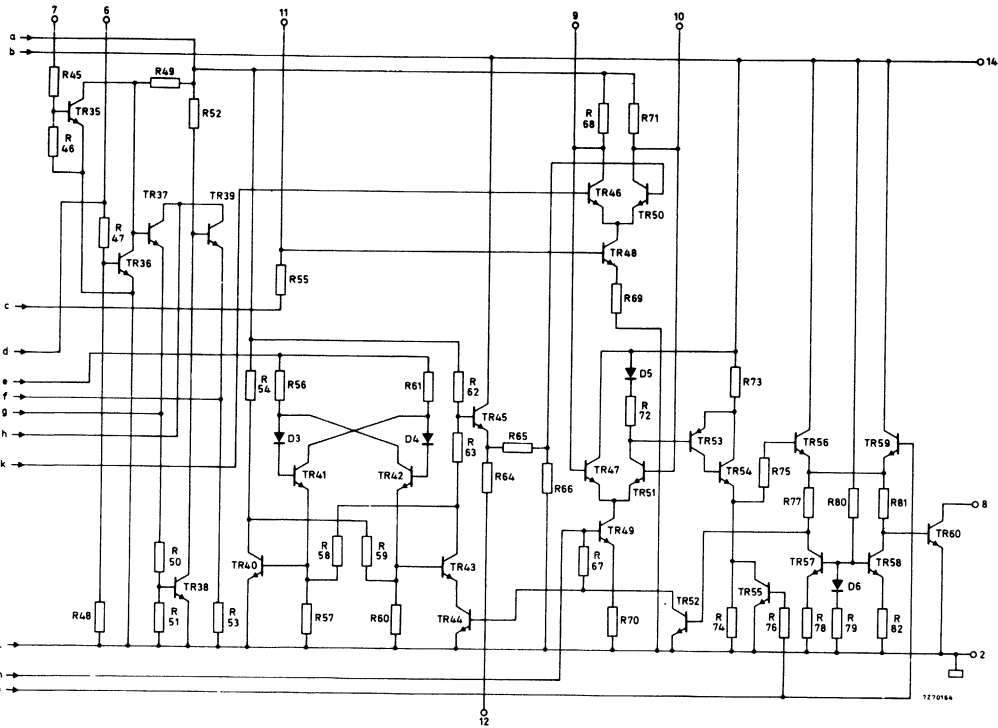
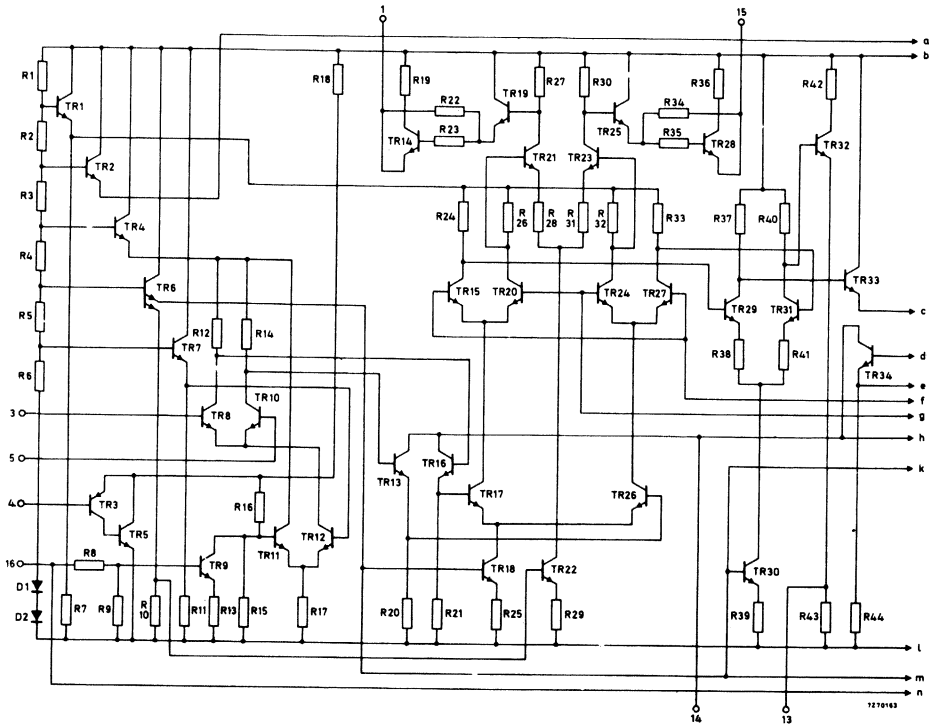
CD331



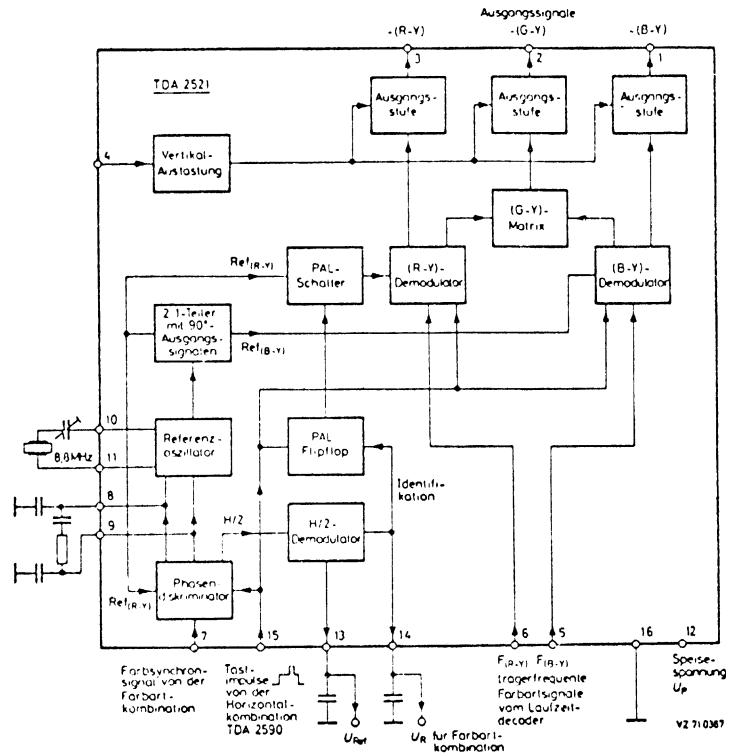
CD332



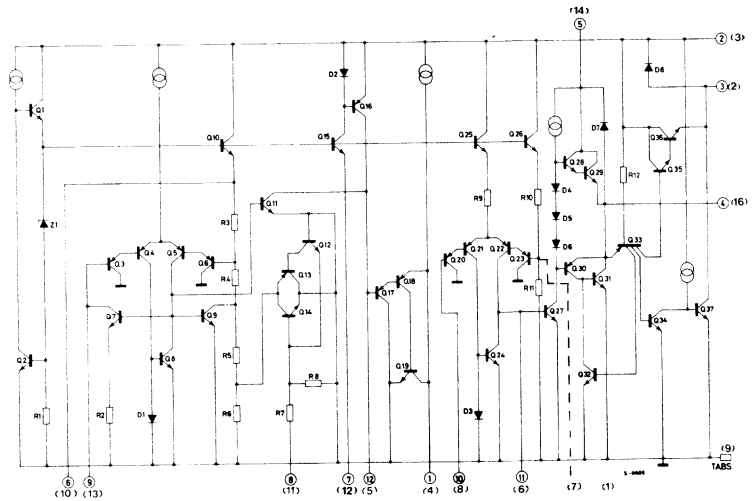
C D333



CD334

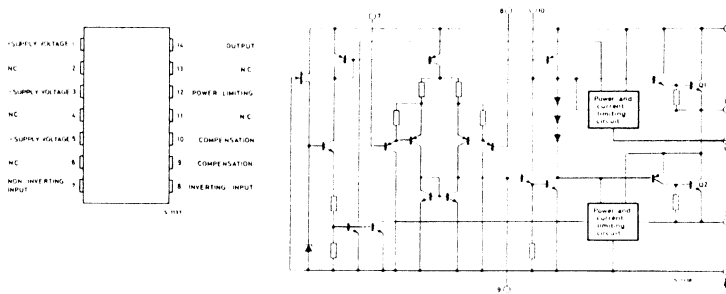


CD336/A

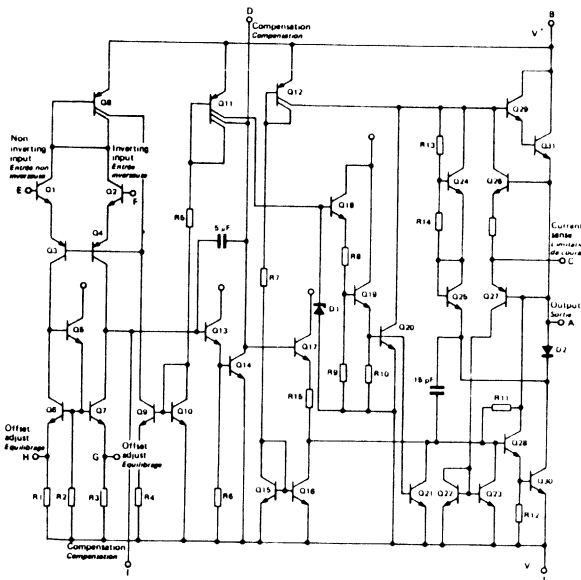


CD336A: pin numbers between brackets

CD337



CD338

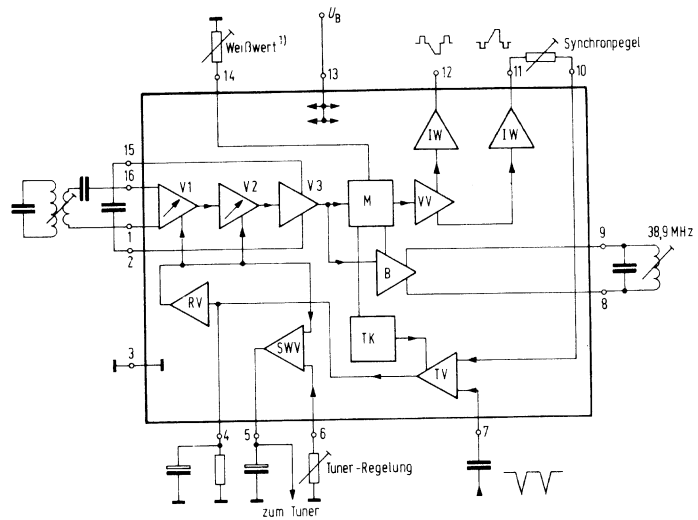


A	B	C	D	E	F	G	H	I	J
1	2	3	4	5	6	7	8	9	10
5	3	2	1	14	13	12	10	9	7
	4							8	

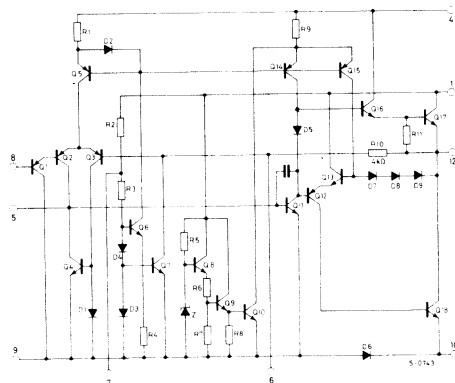
(1)
(2)

PACKAGE : (1) : KM
(2) : EP

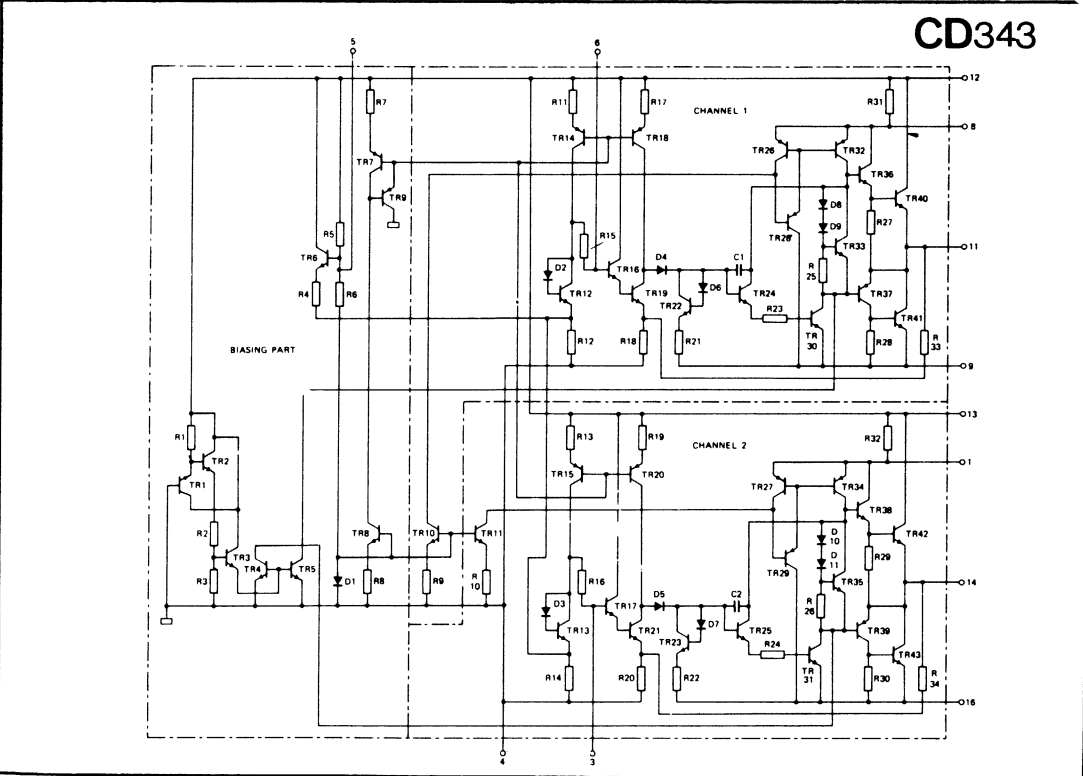
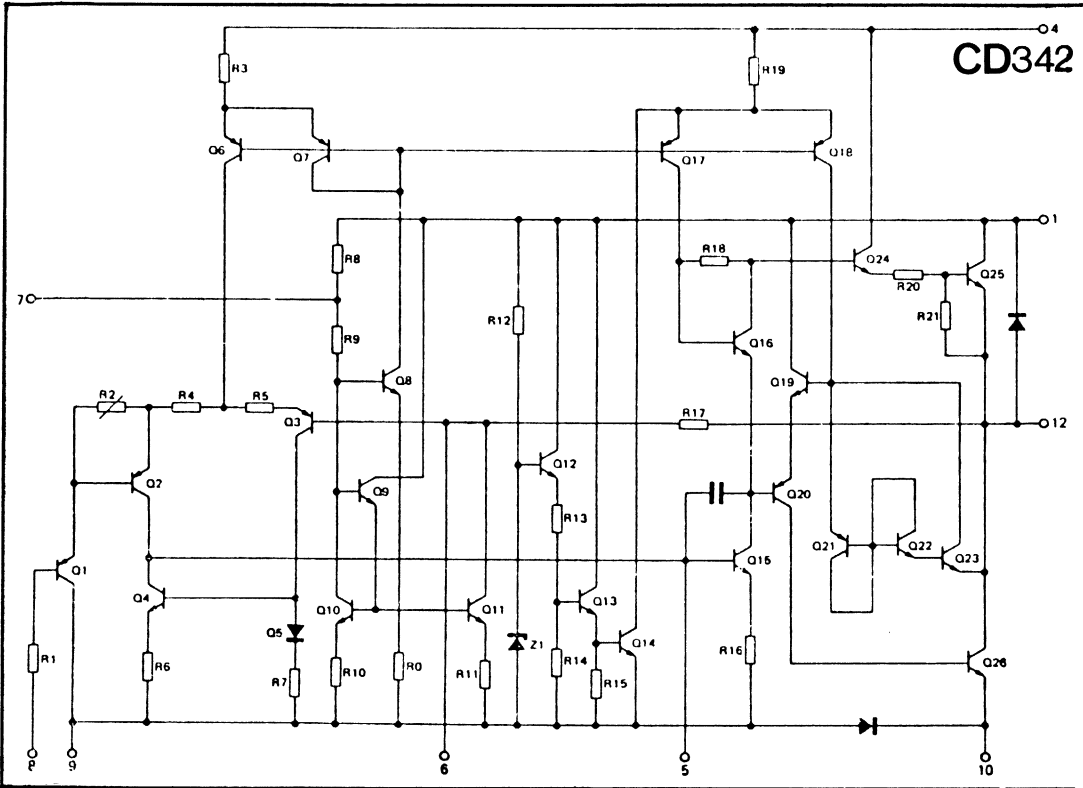
CD340



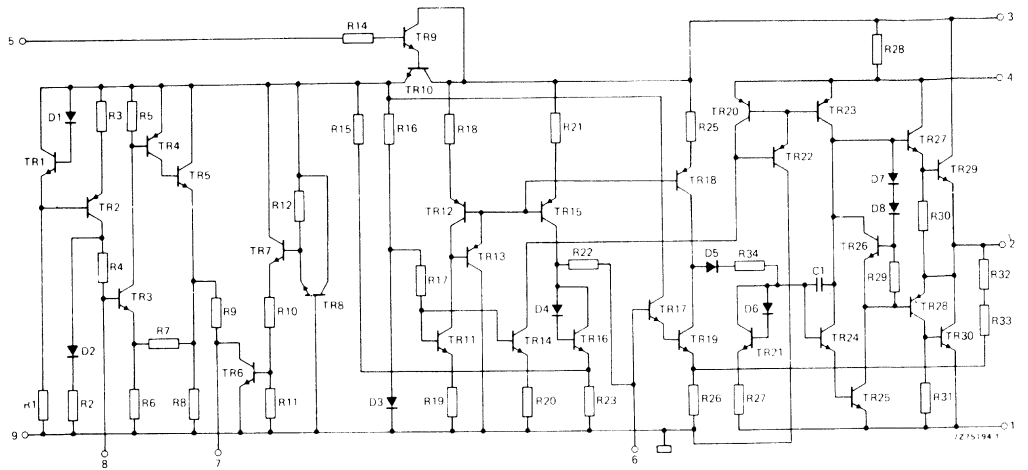
CD341



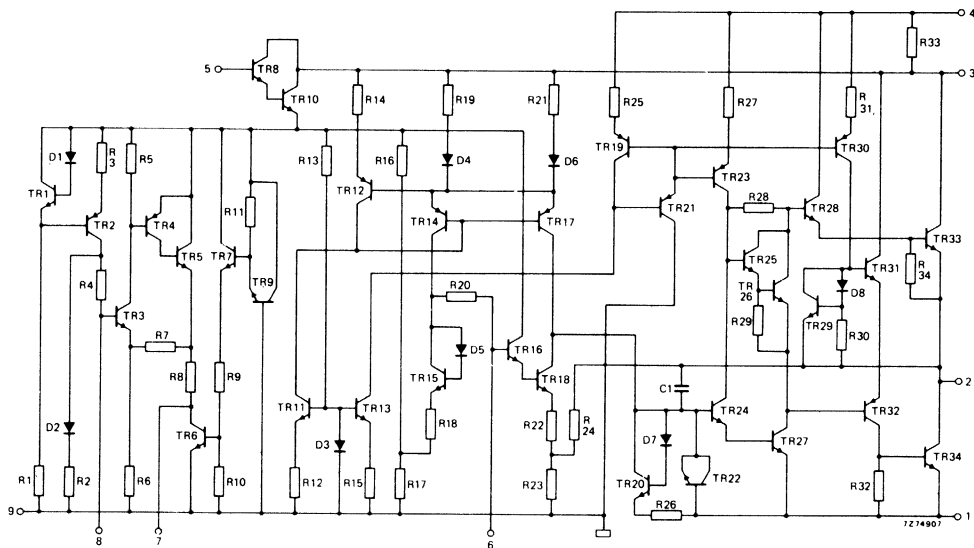
CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder



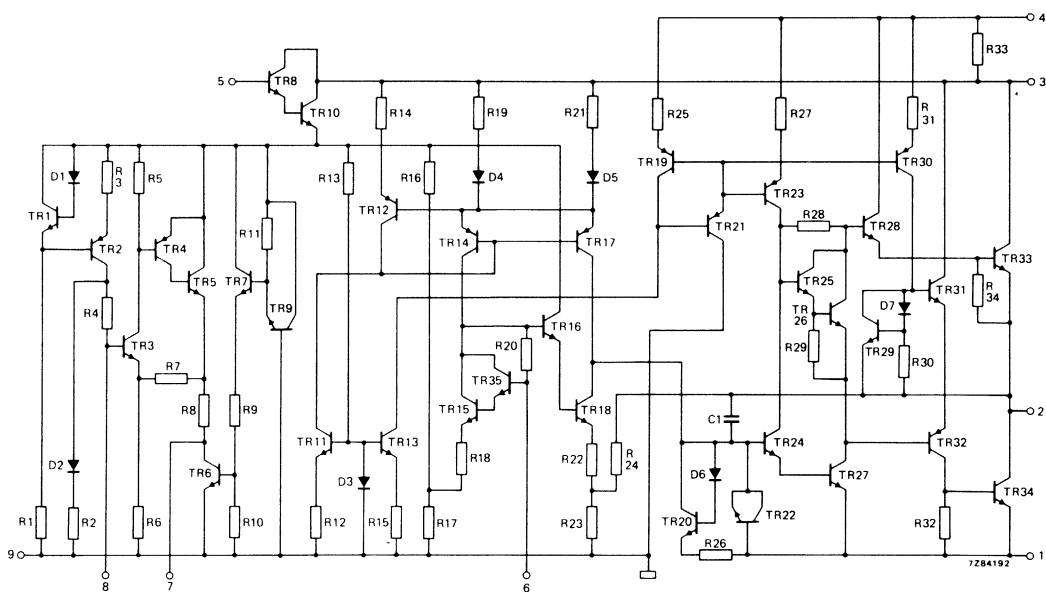
CD344

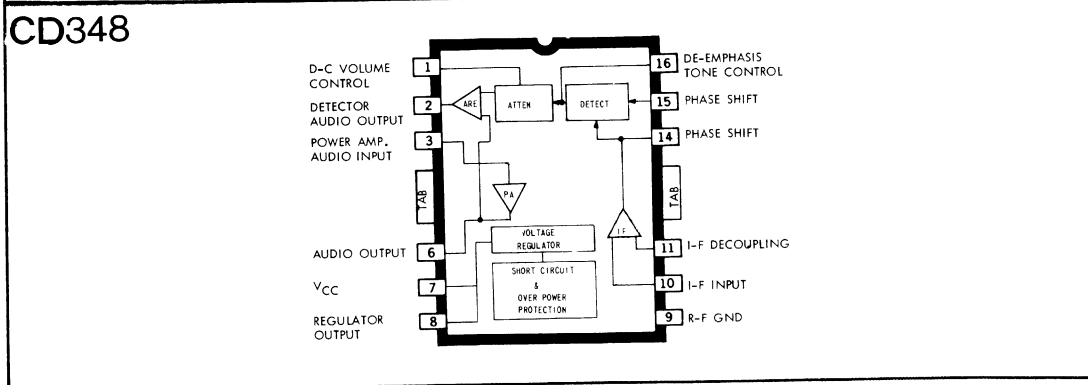
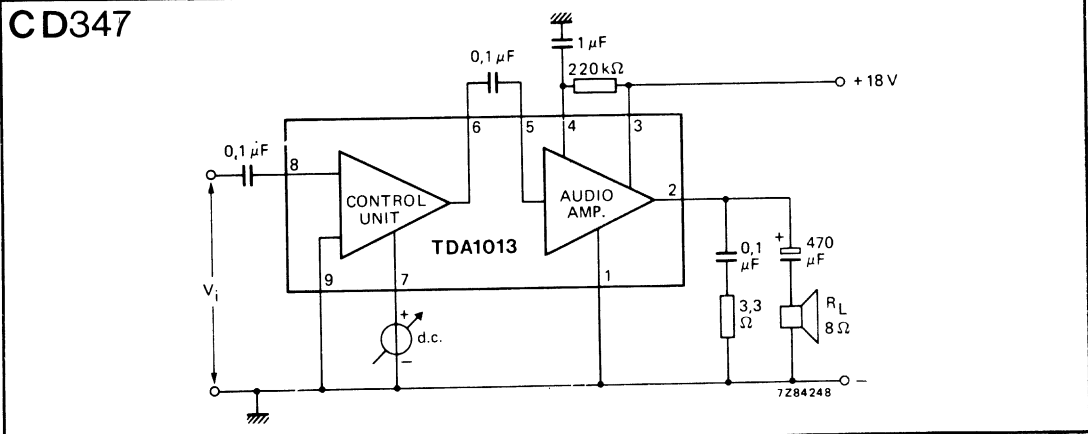
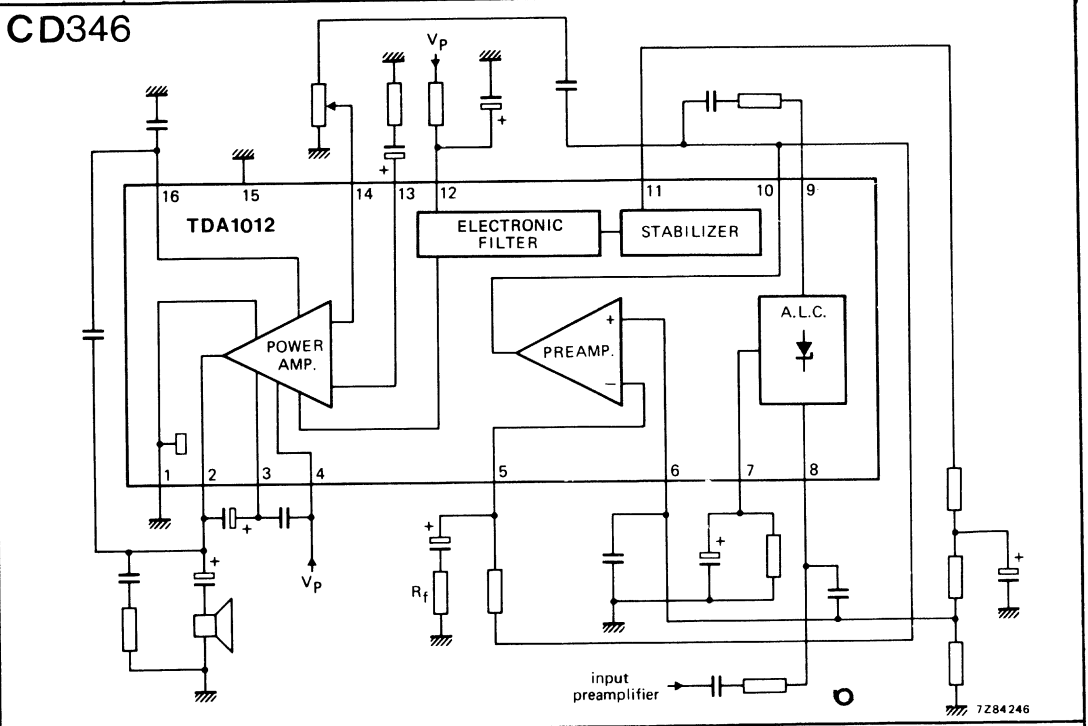


CD345

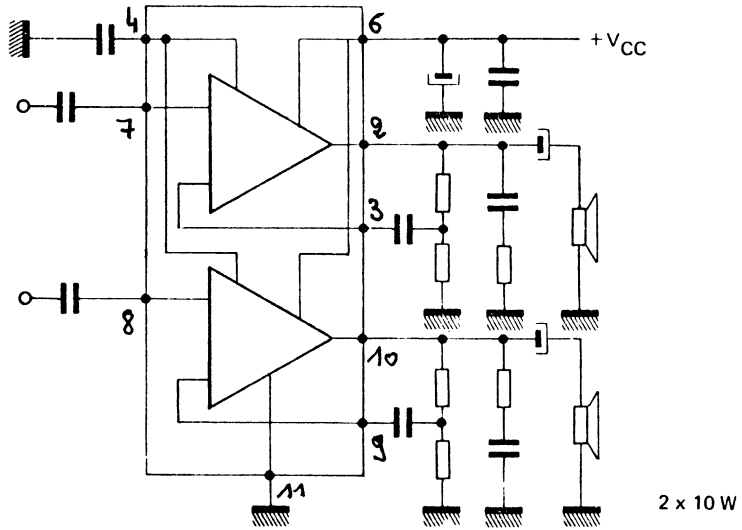


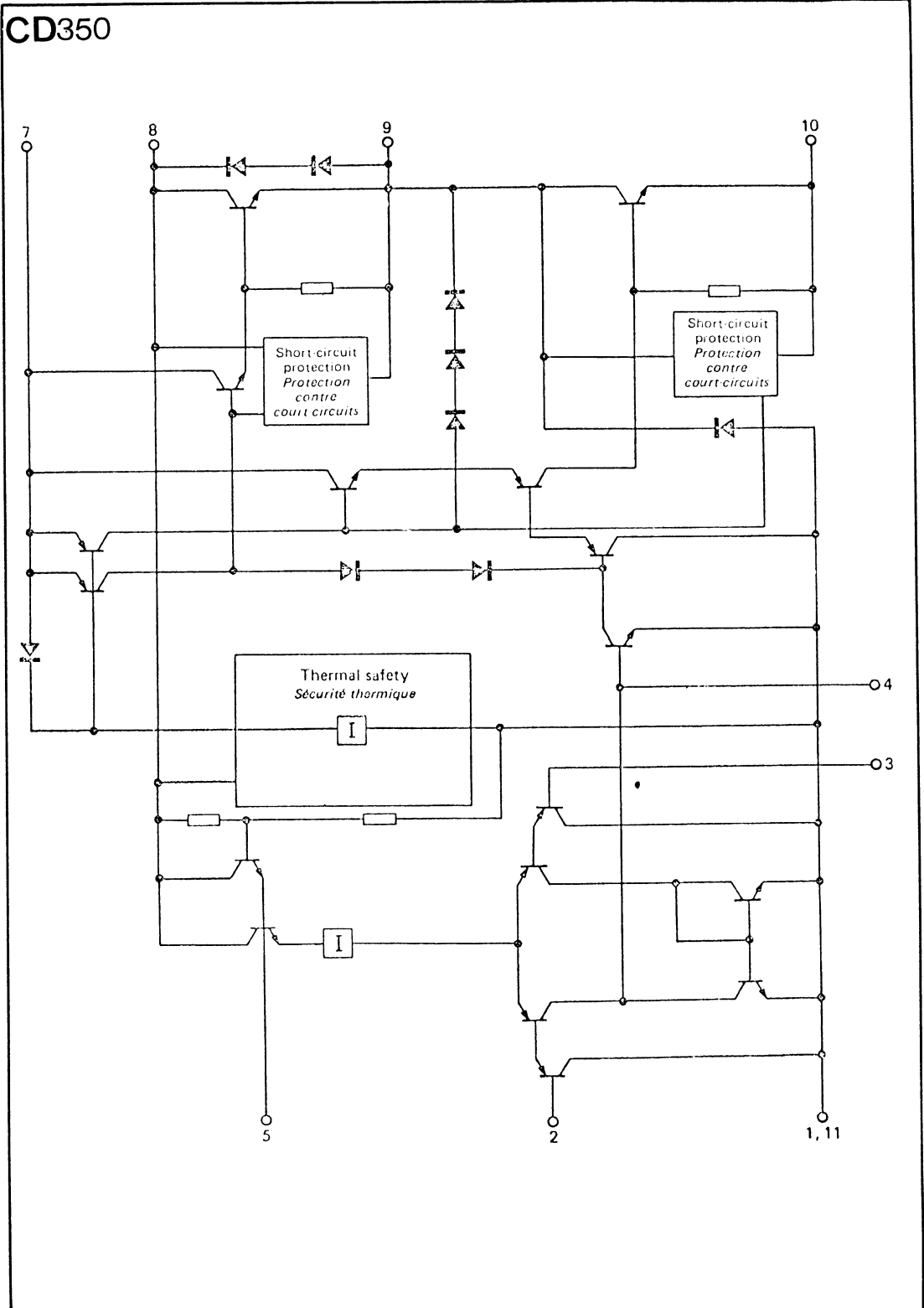
CD345A



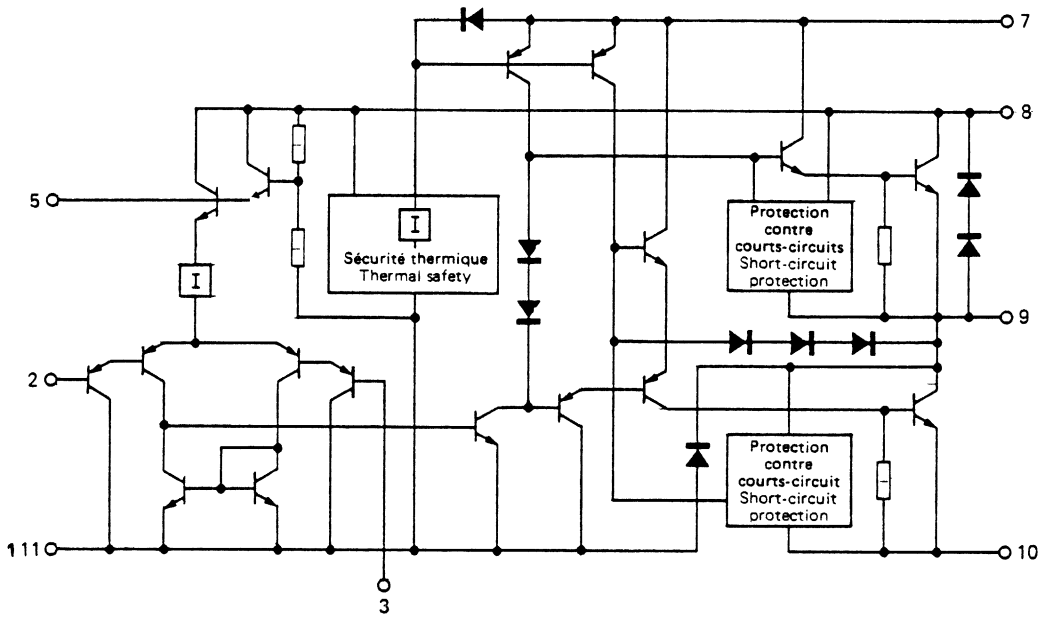


CD349

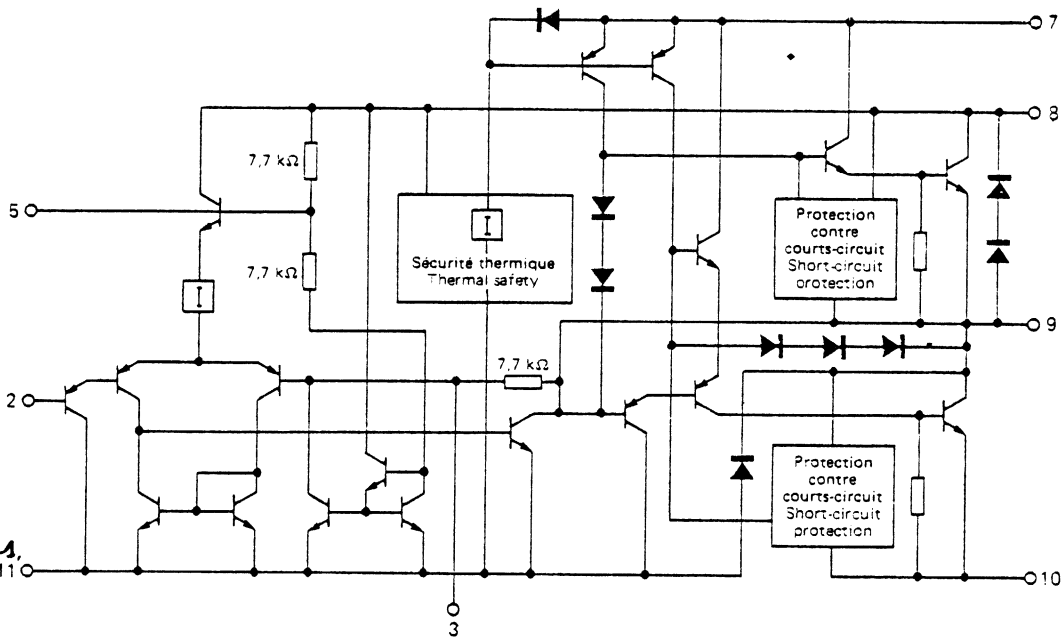




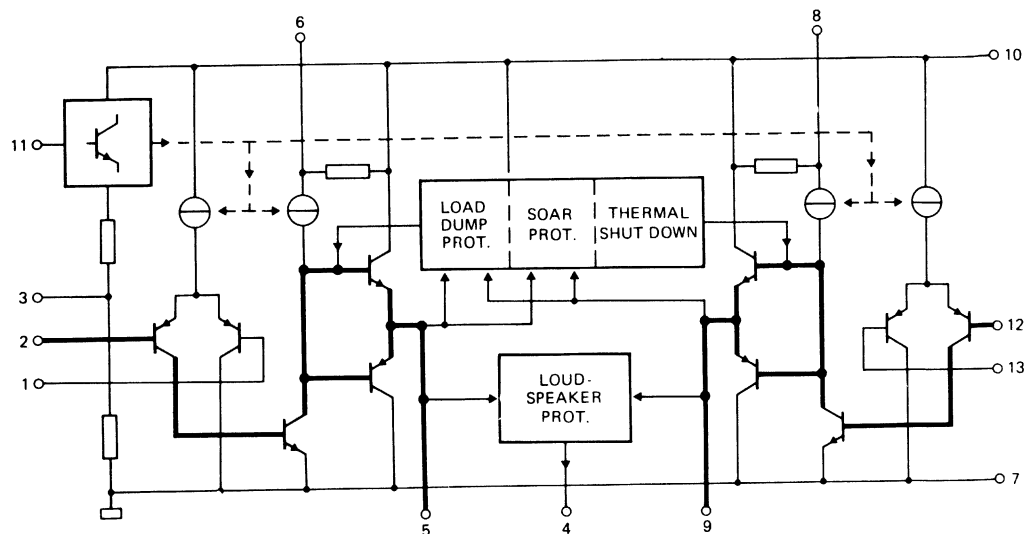
CD351



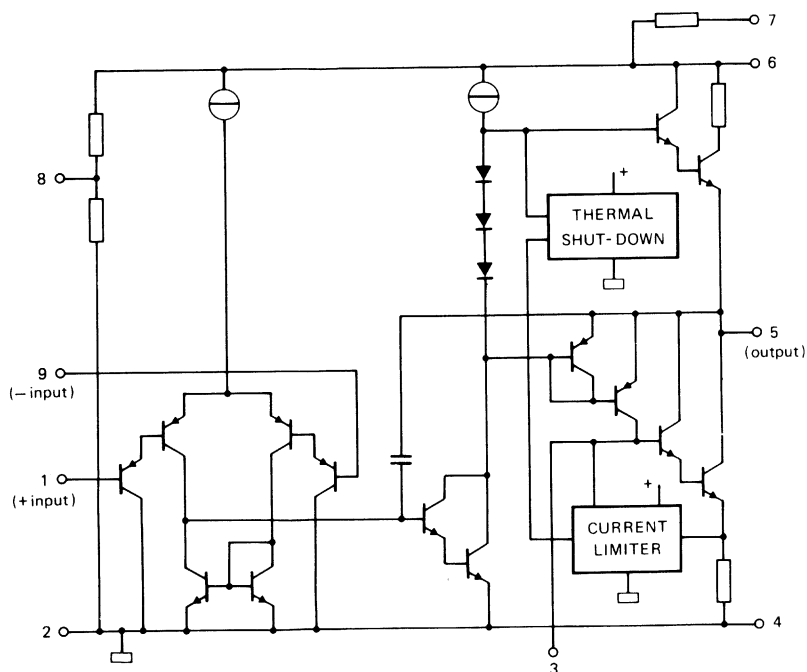
CD352



CD353



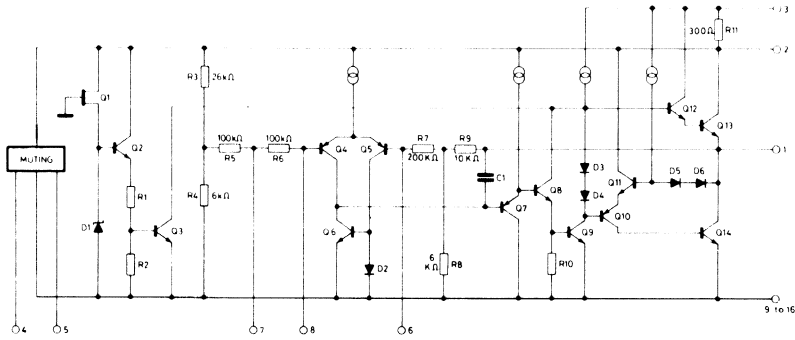
CD354



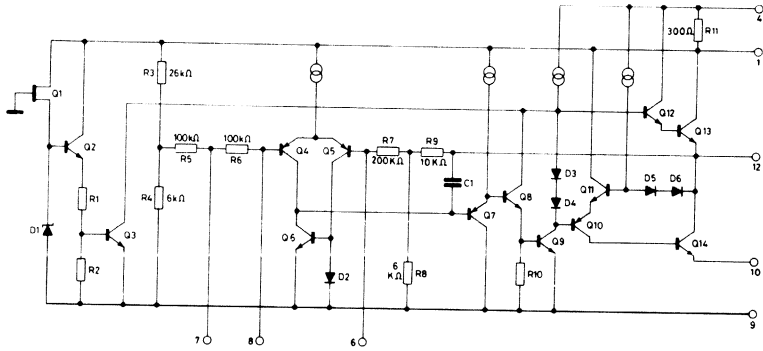
PINNING

1. Non-inverting input
2. Input ground (substrate)
3. Compensation
4. Negative supply (ground)
5. Output
6. Positive supply (V_p)
7. Externally connected to pin 6
8. Ripple rejection
9. Inverting input (feedback)

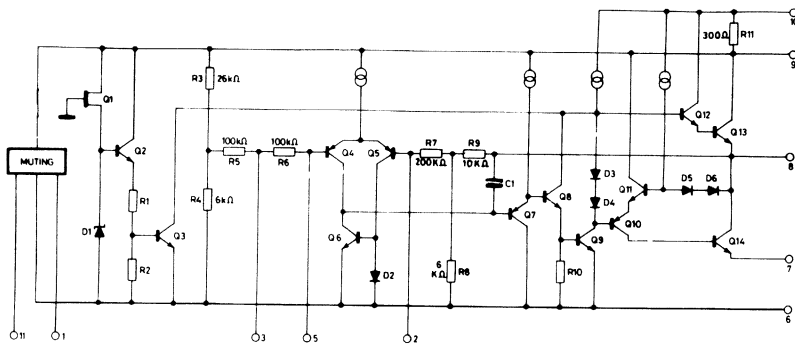
CD355A



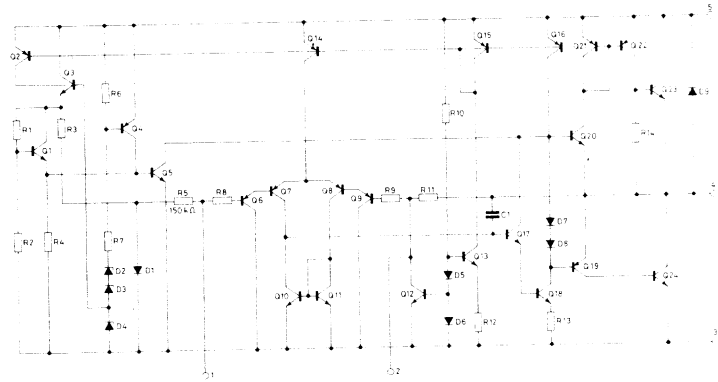
CD355B



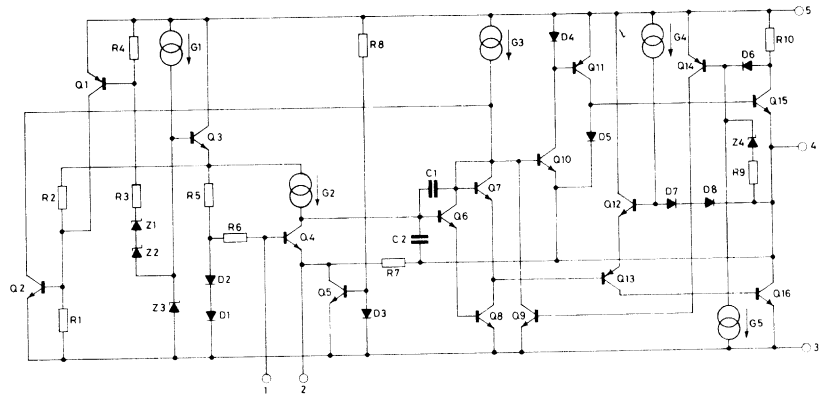
CD355C



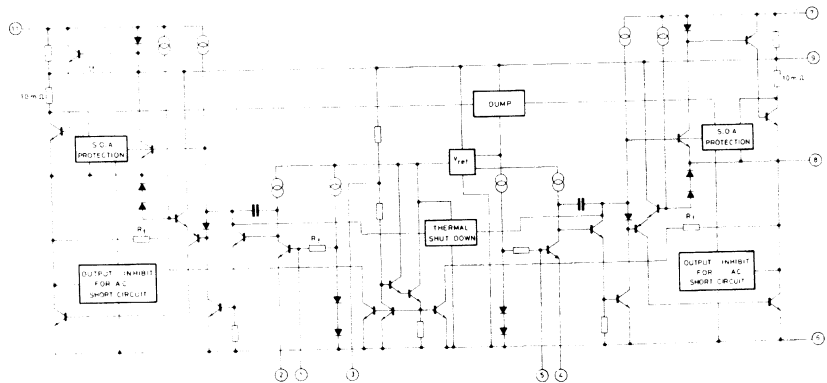
CD356



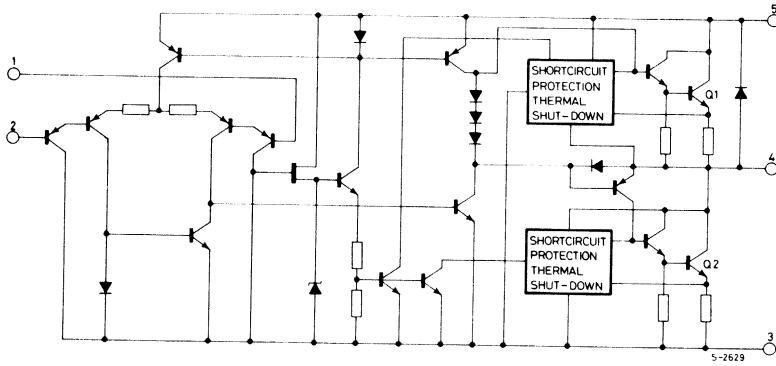
CD357



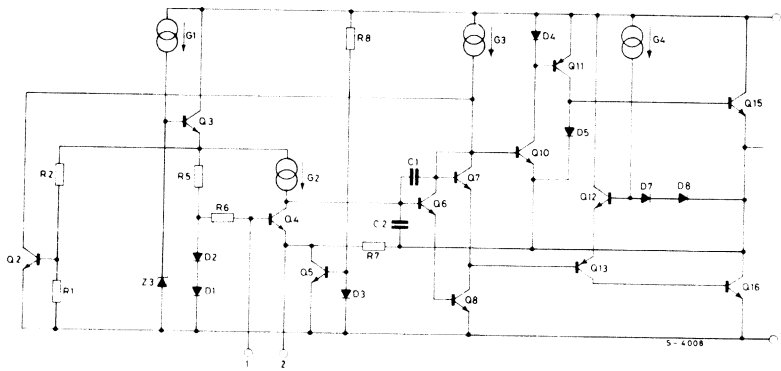
CD358



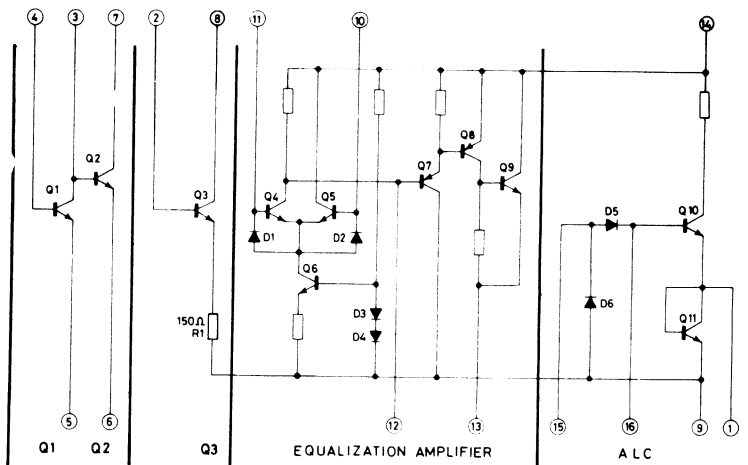
CD359



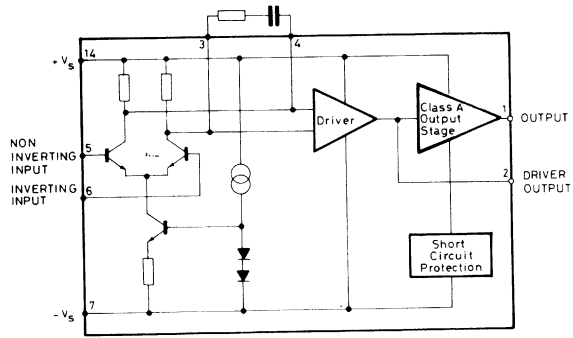
CD360



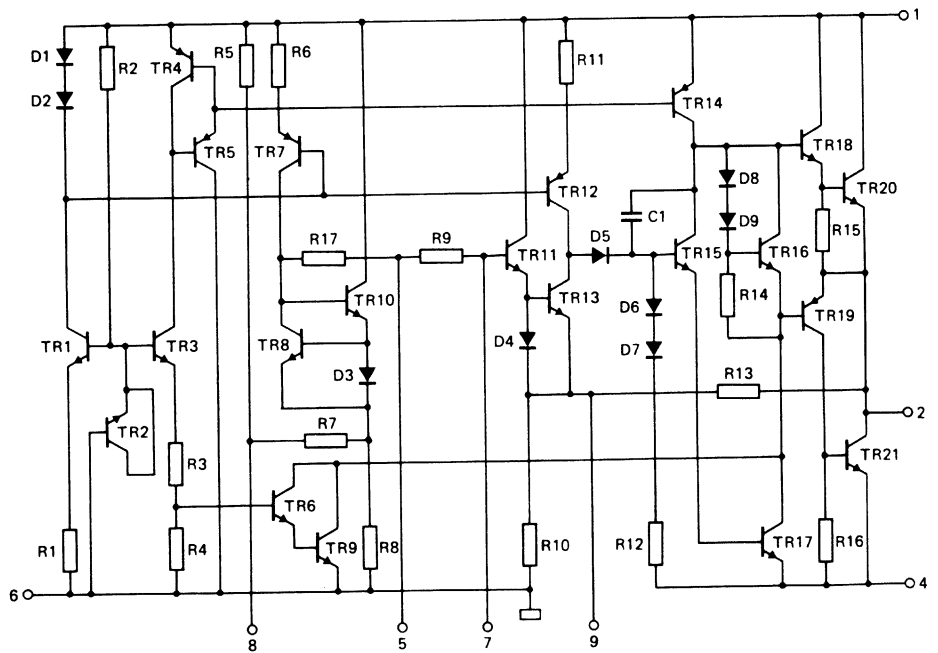
CD361

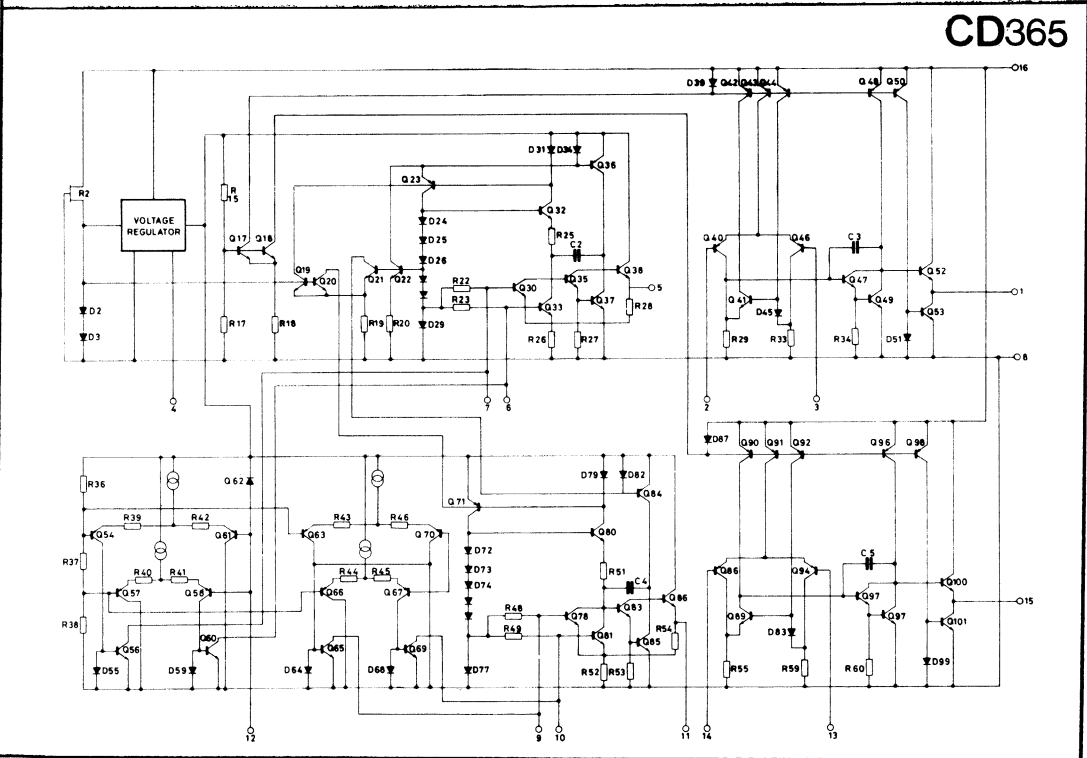
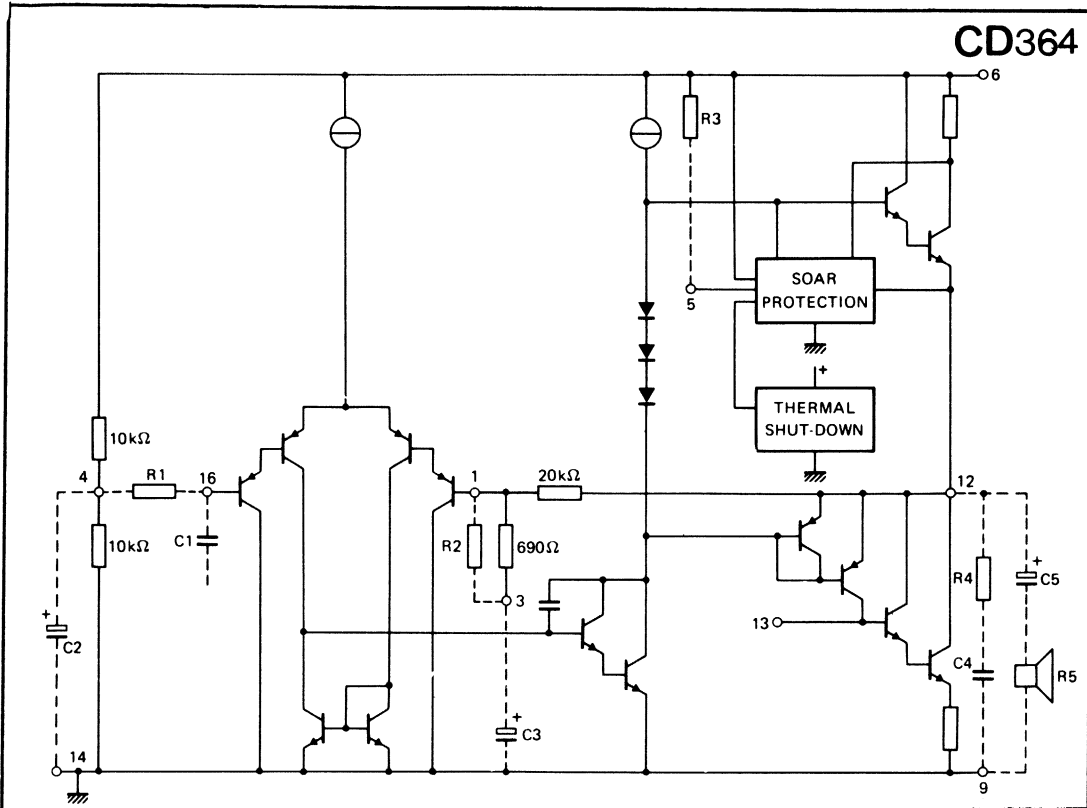


CD362

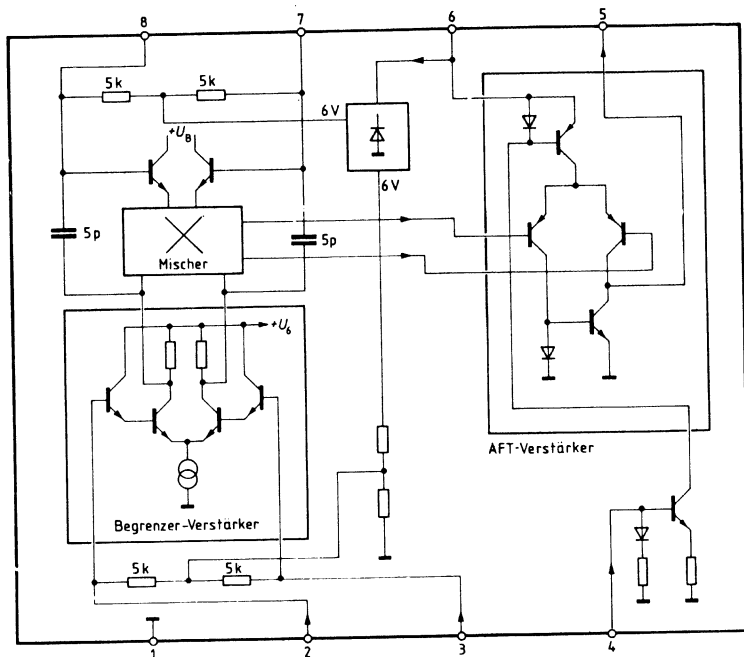


CD363

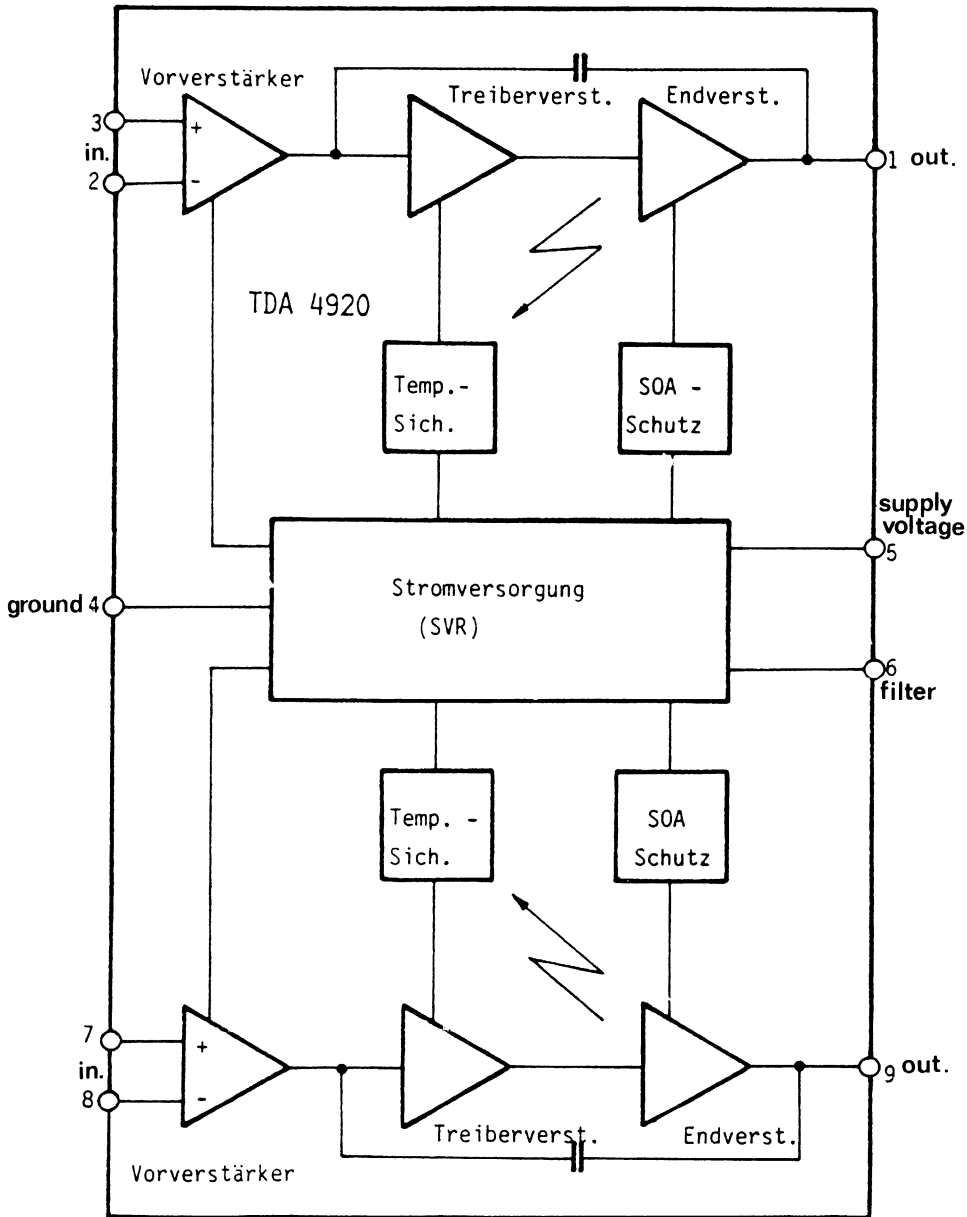




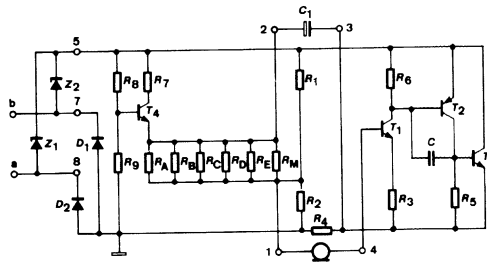
CD366



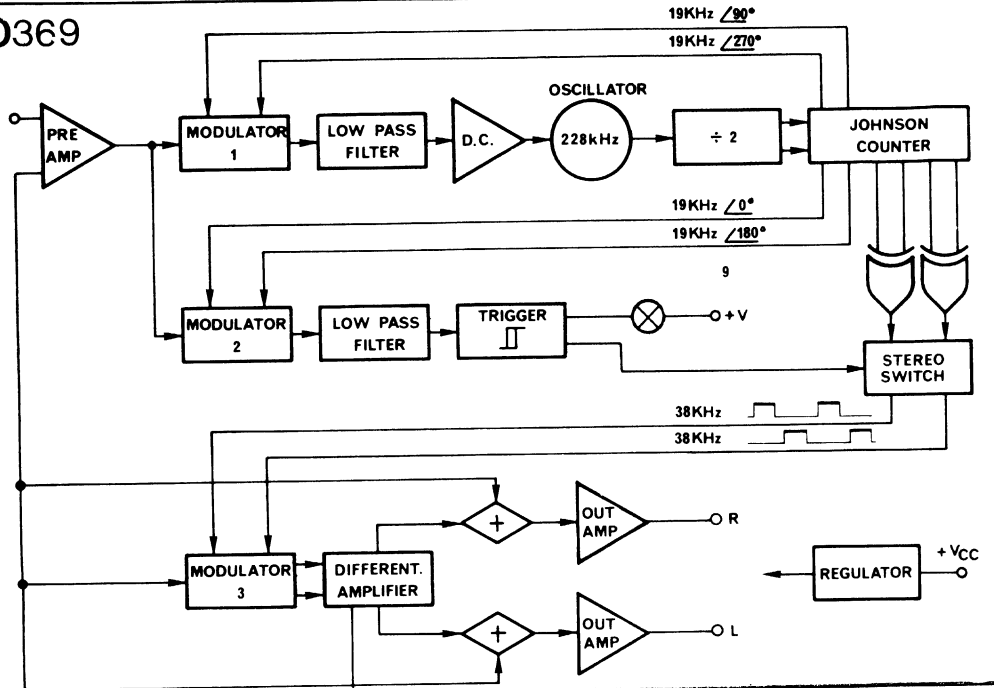
CD367



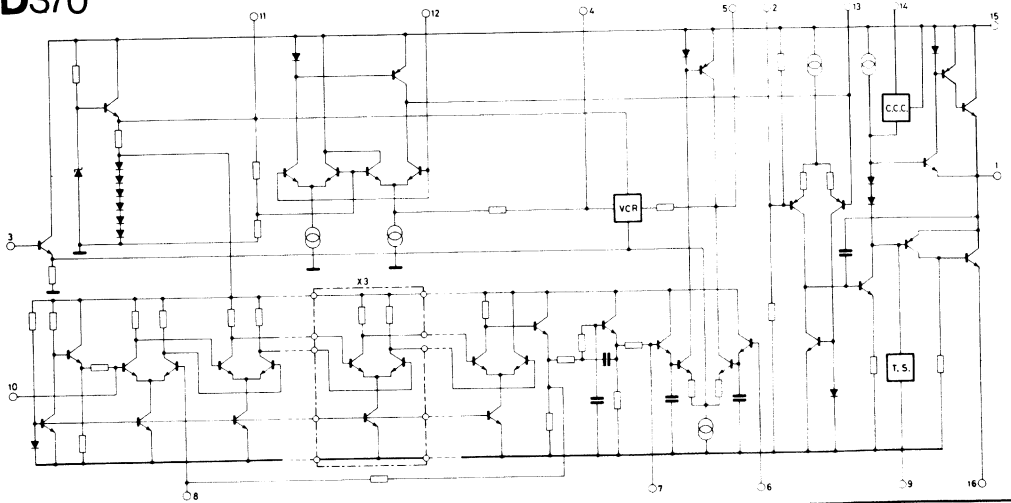
CD368



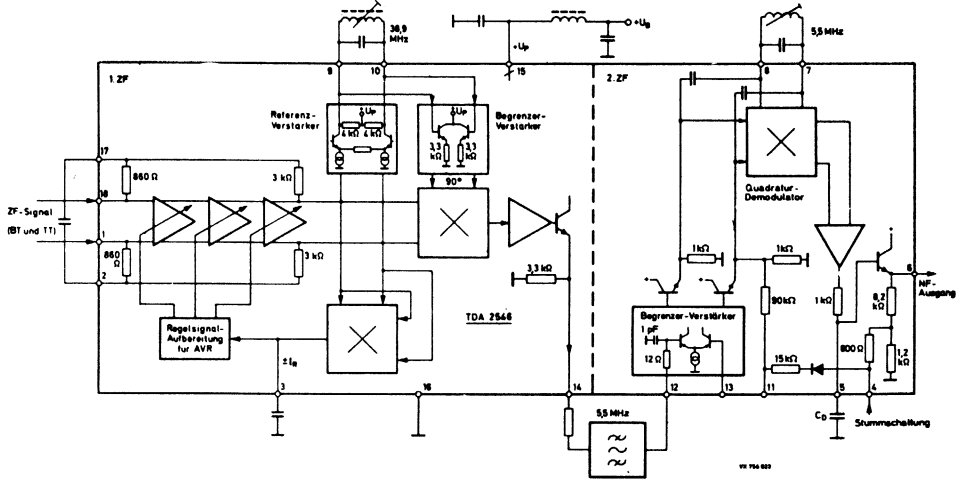
CD369



CD370

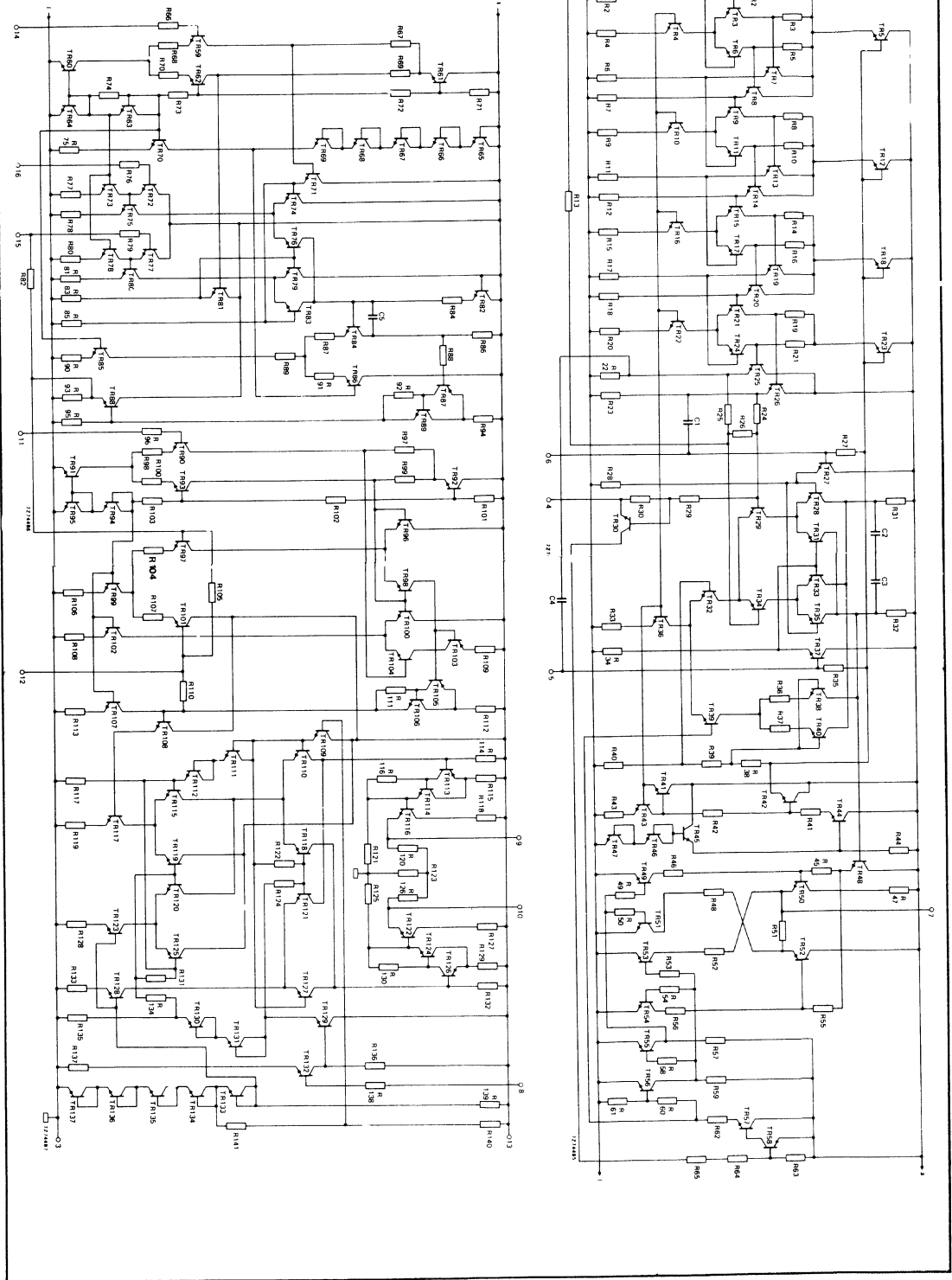


CD371

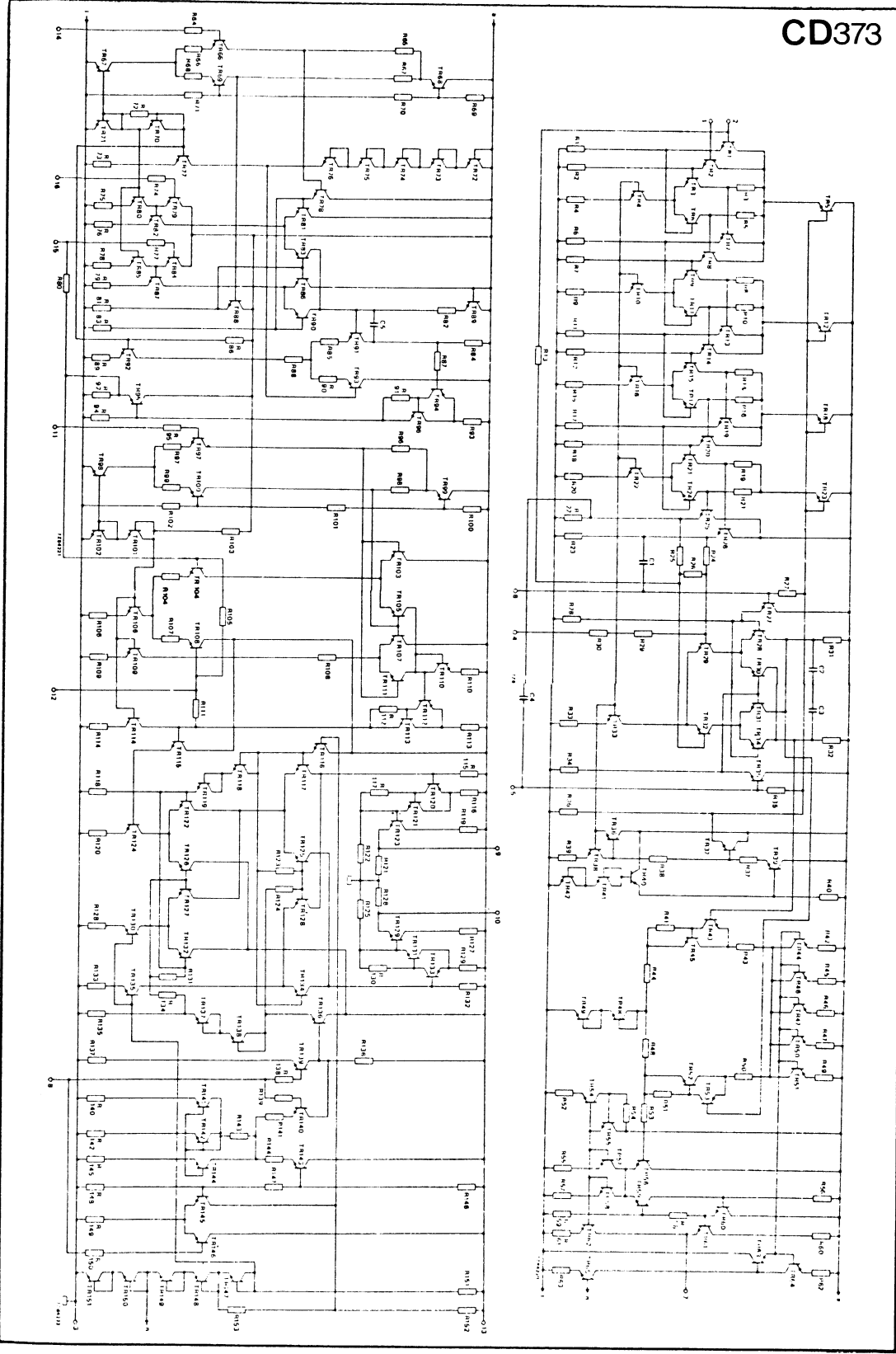


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder

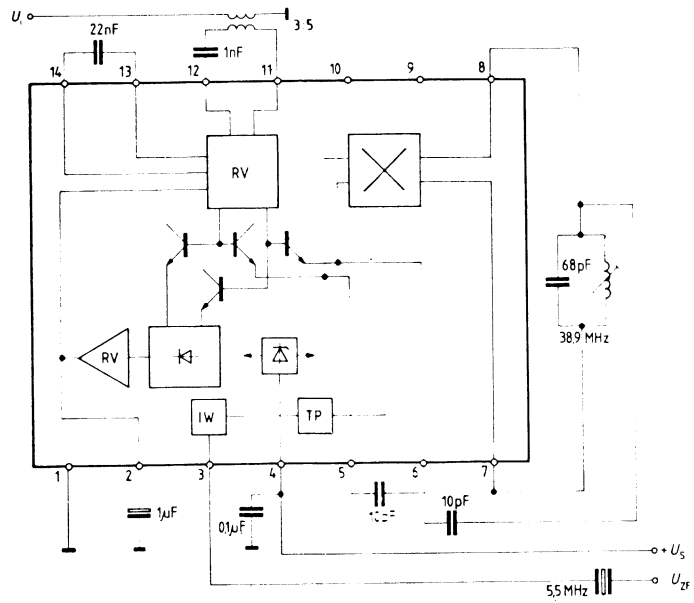
CD372



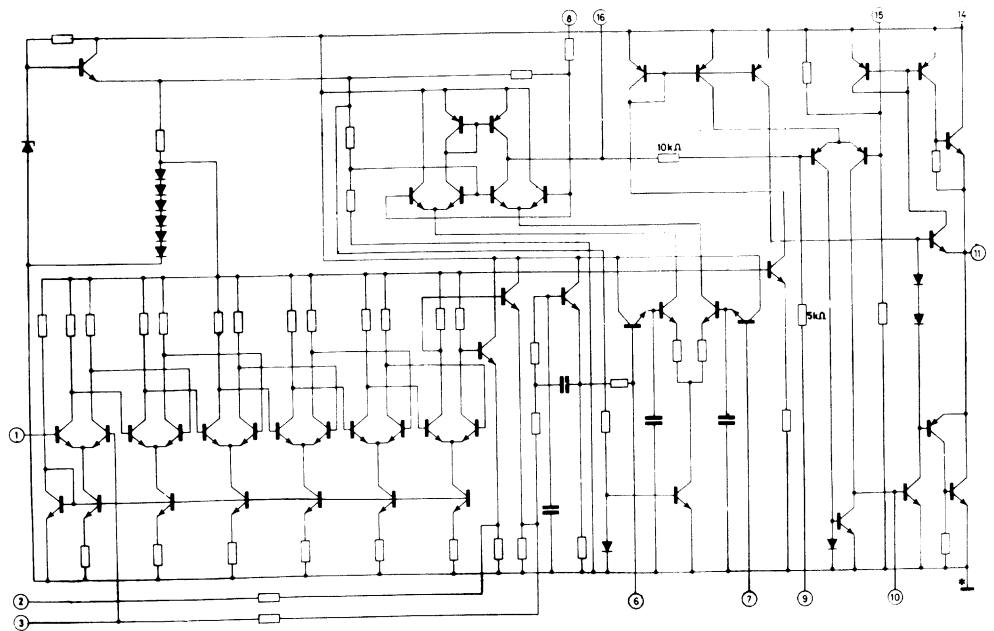
CD373



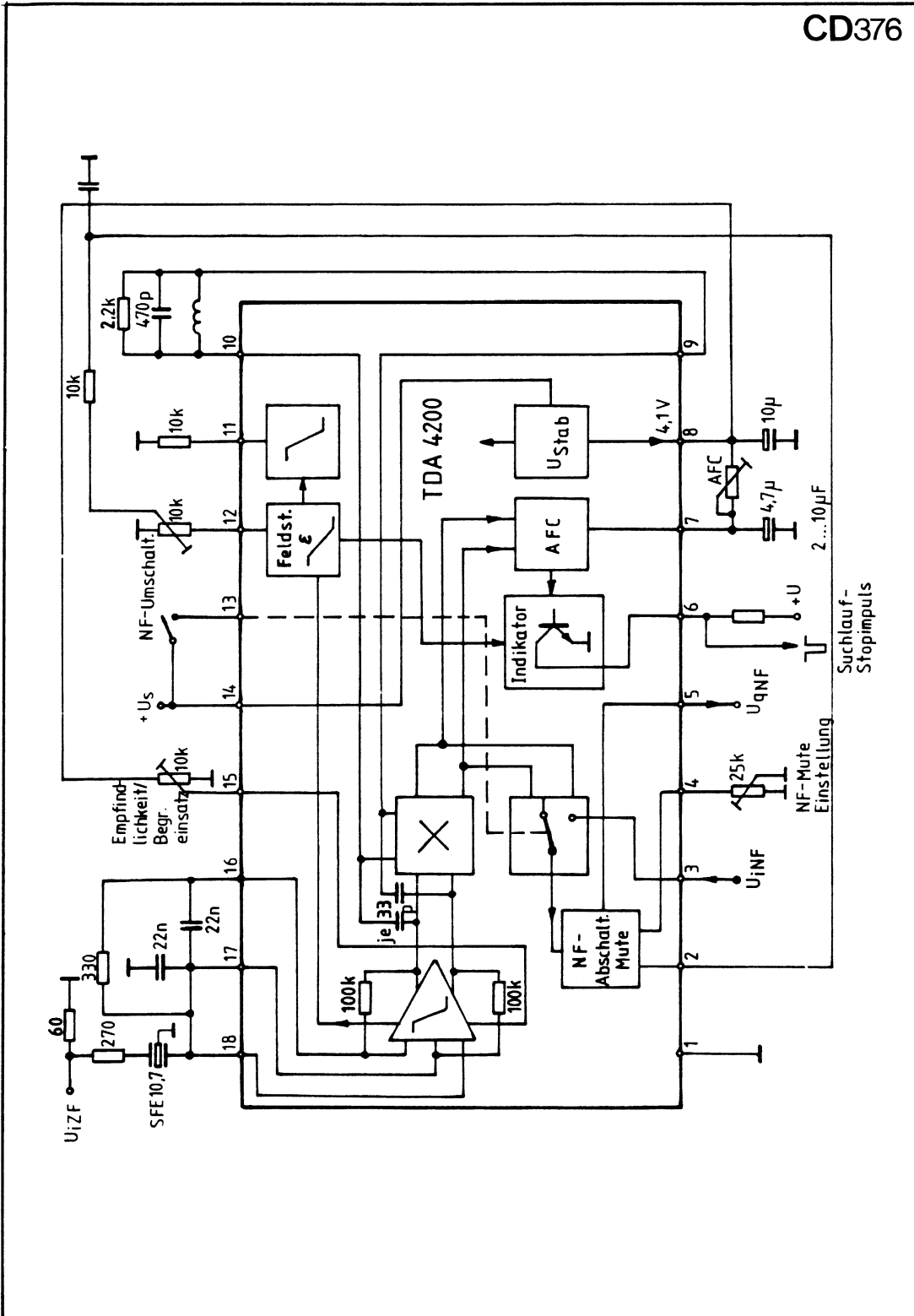
CD374



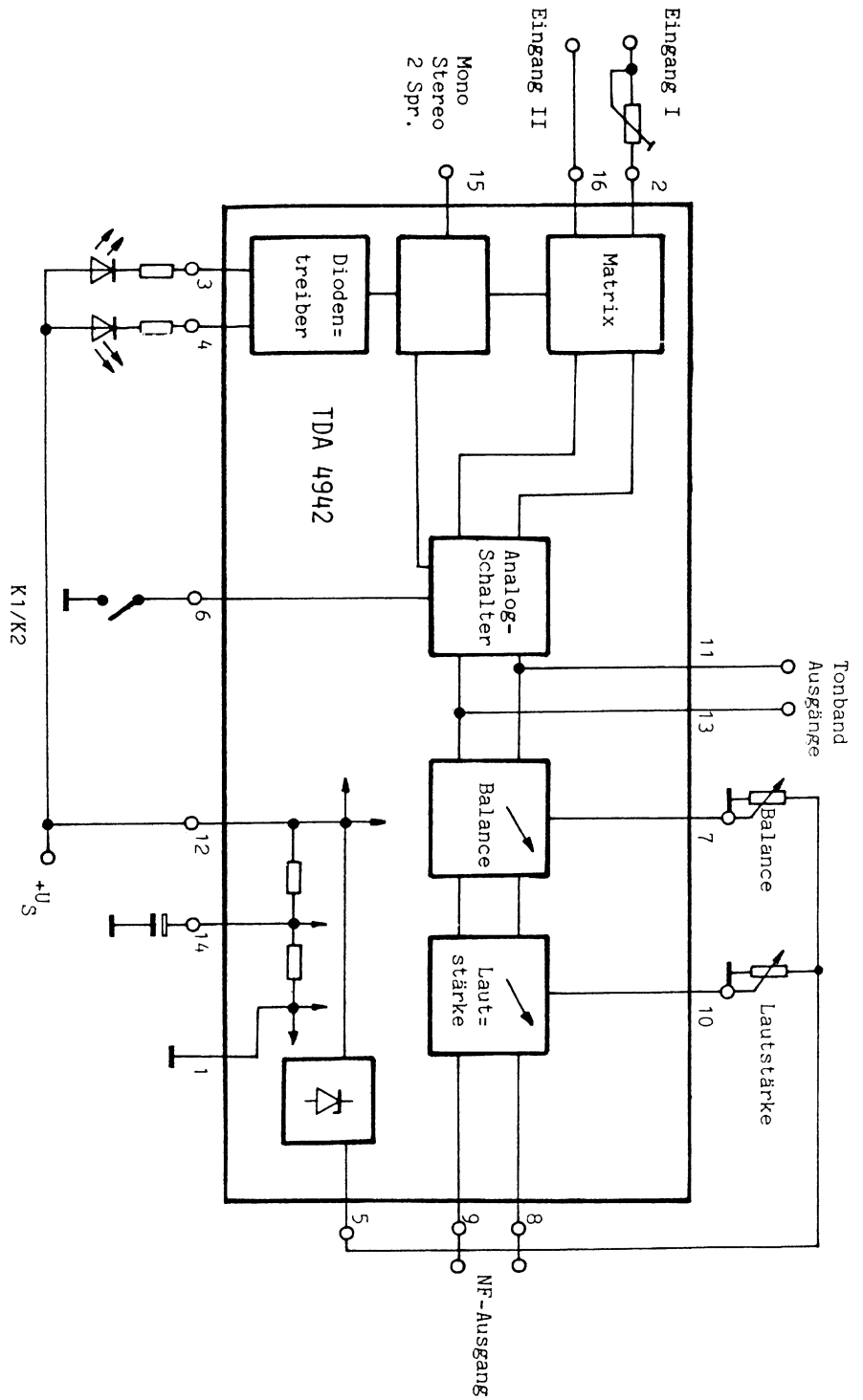
CD375



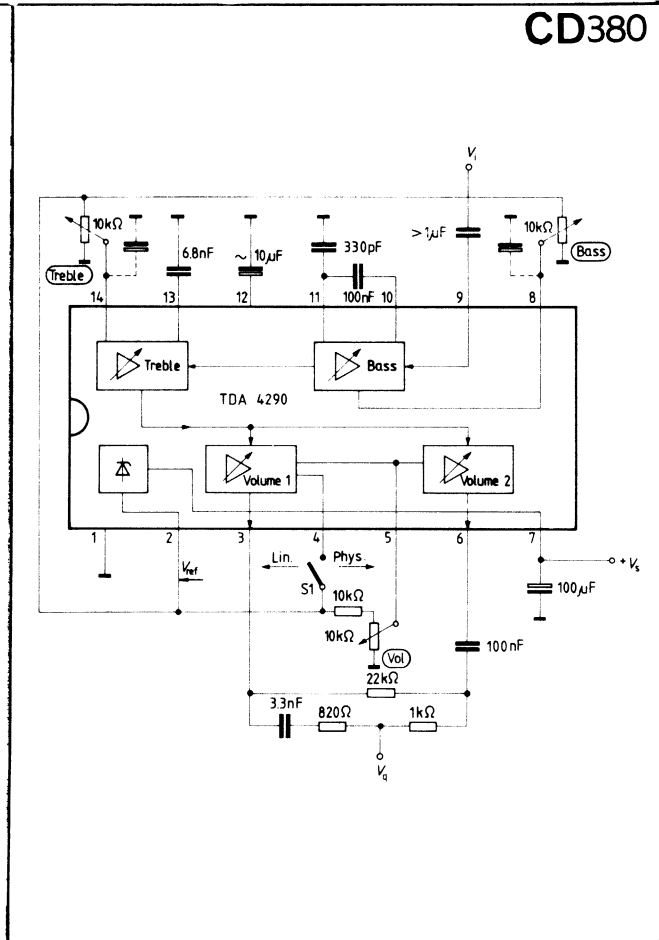
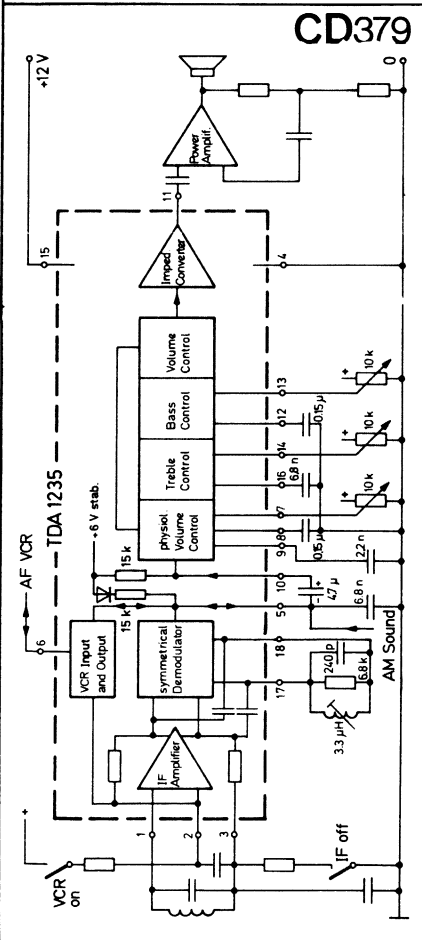
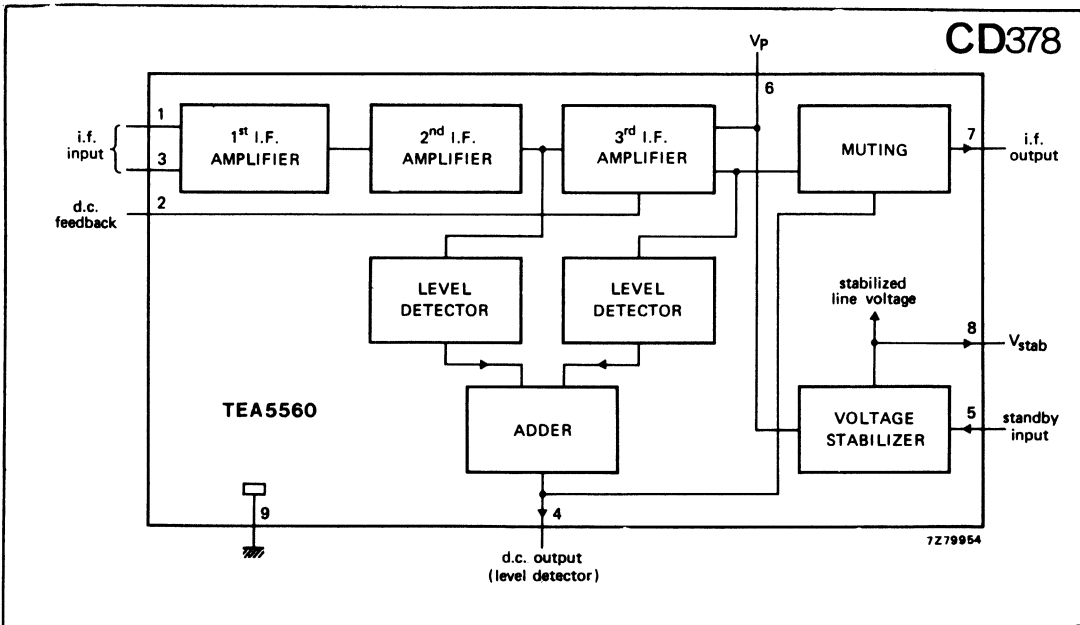
CD376



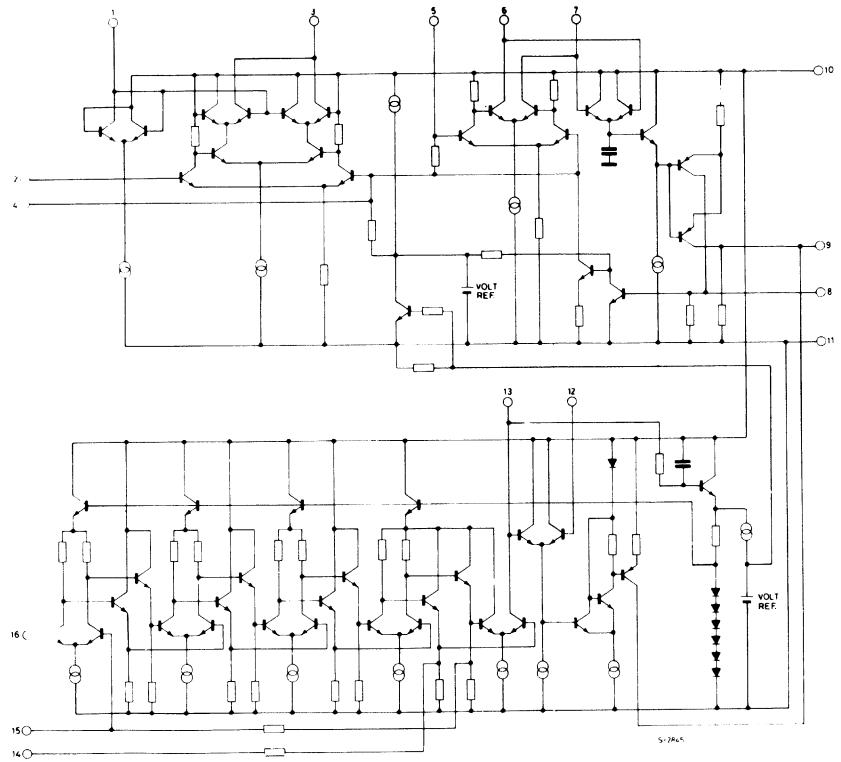
CD377



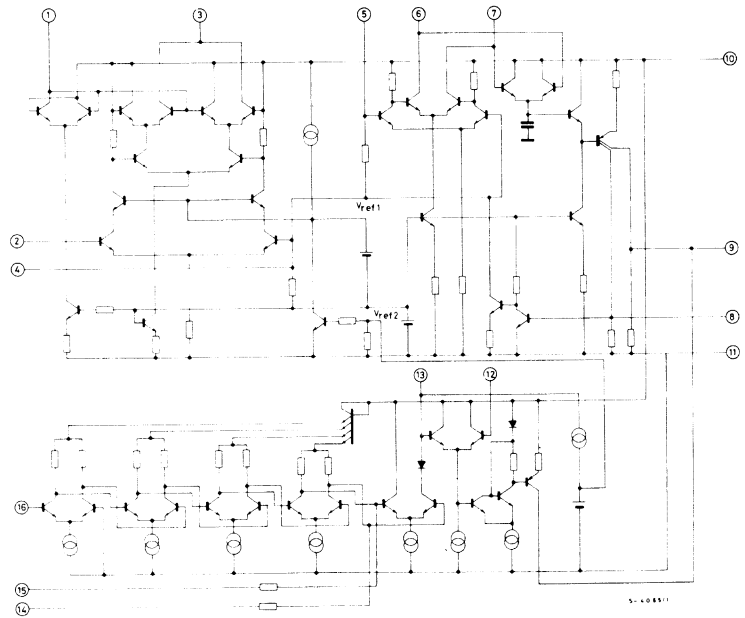
CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBILDER



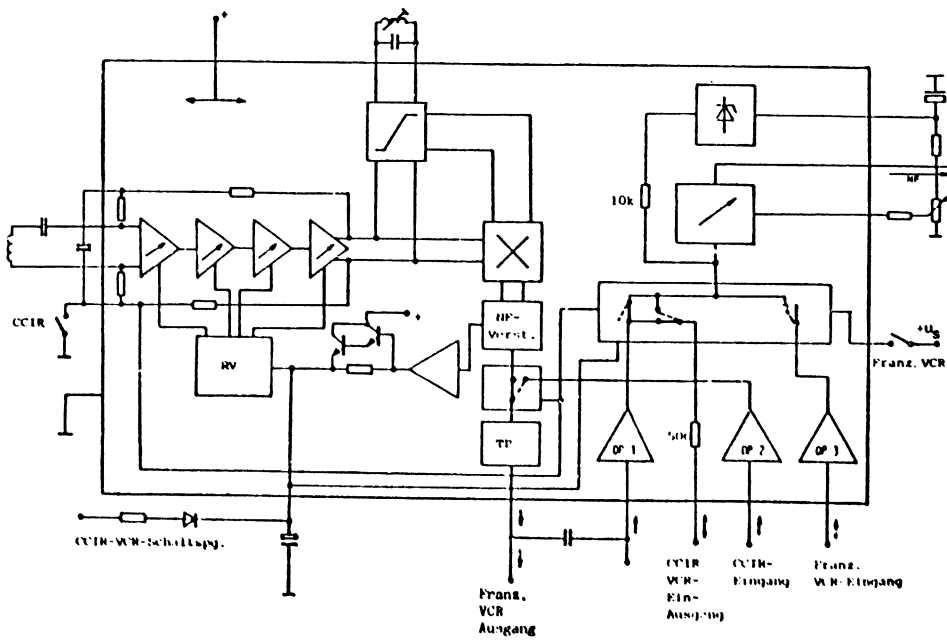
CD381



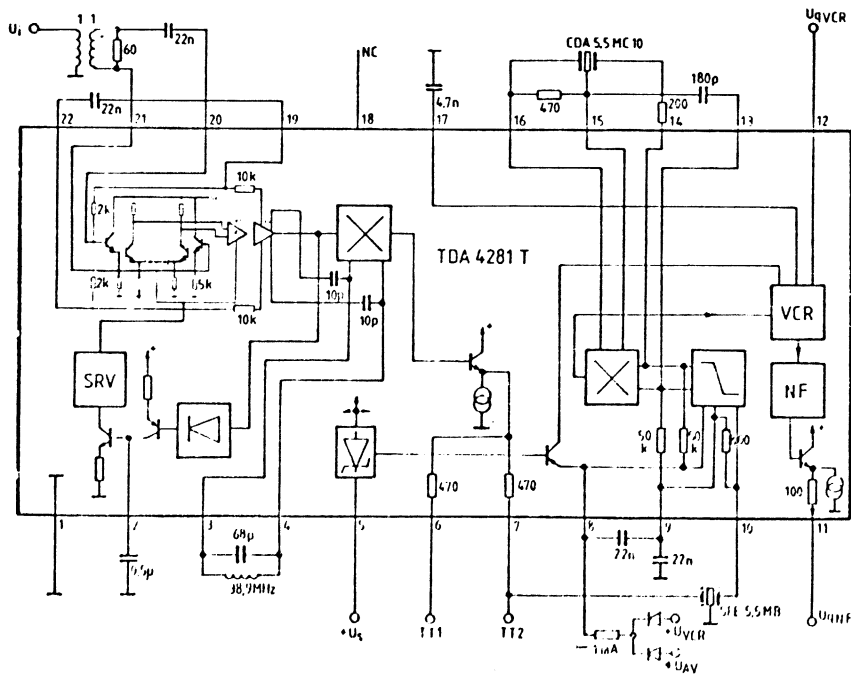
CD382



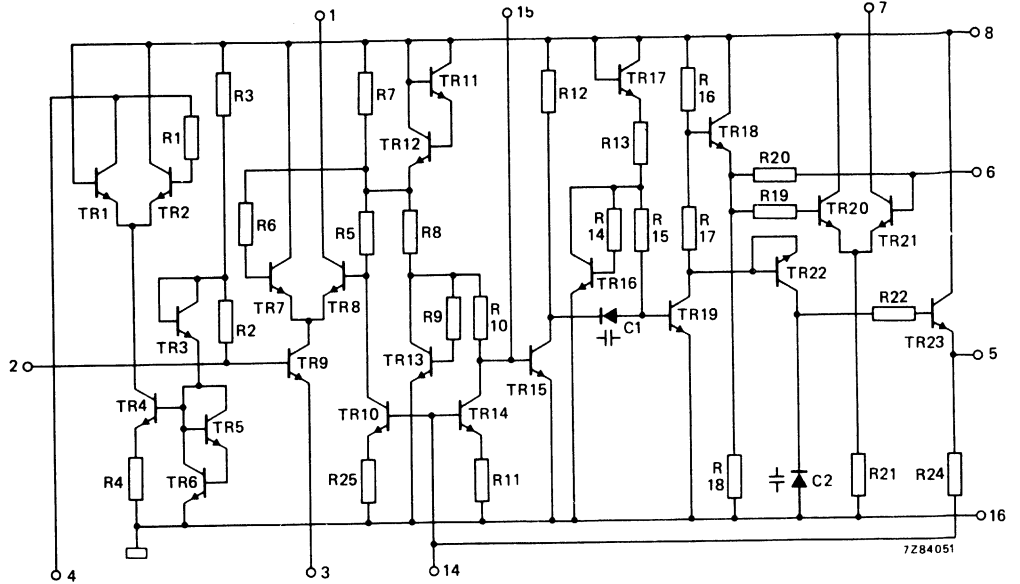
CD383



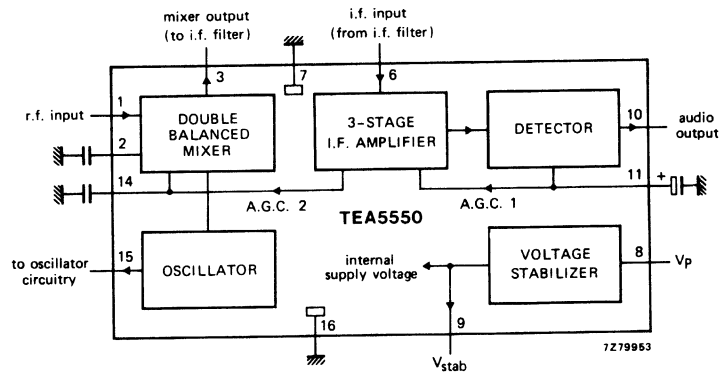
CD384



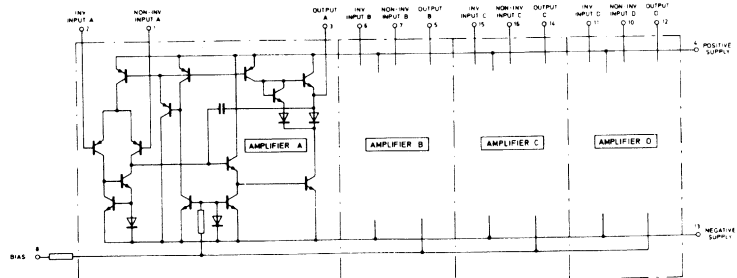
CD385



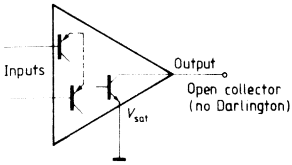
CD386



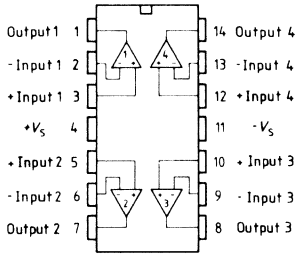
CD387



CD388

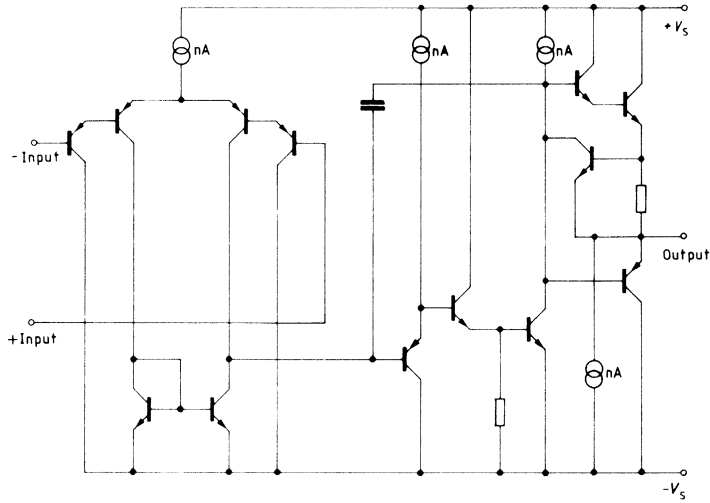


Pin configuration

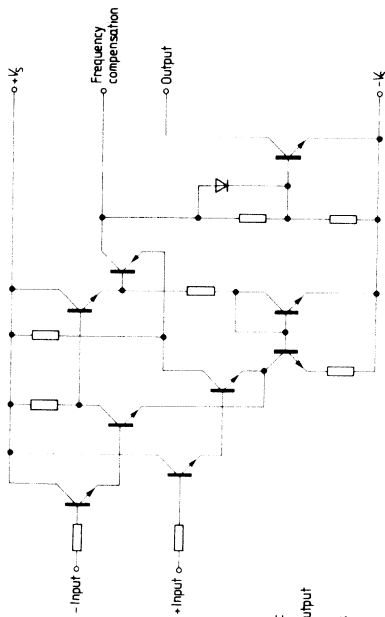


CD389

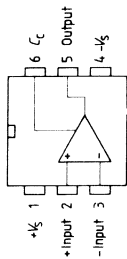
Circuit diagram of a single op amp



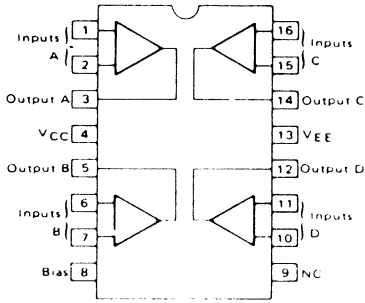
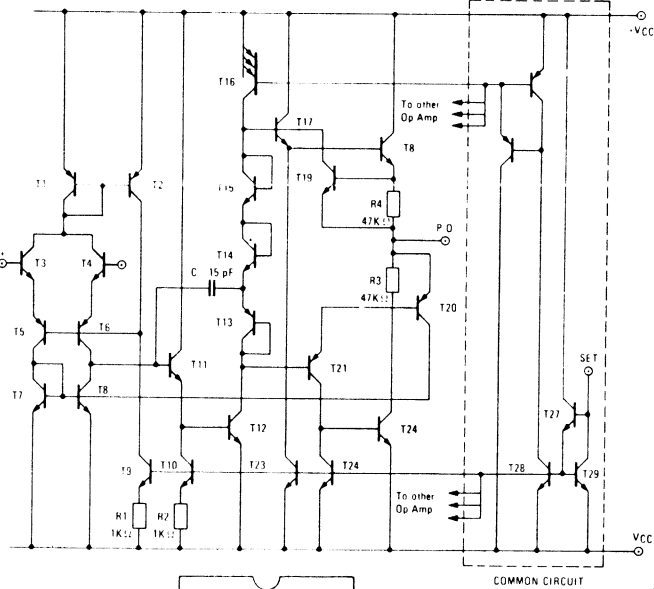
CD390



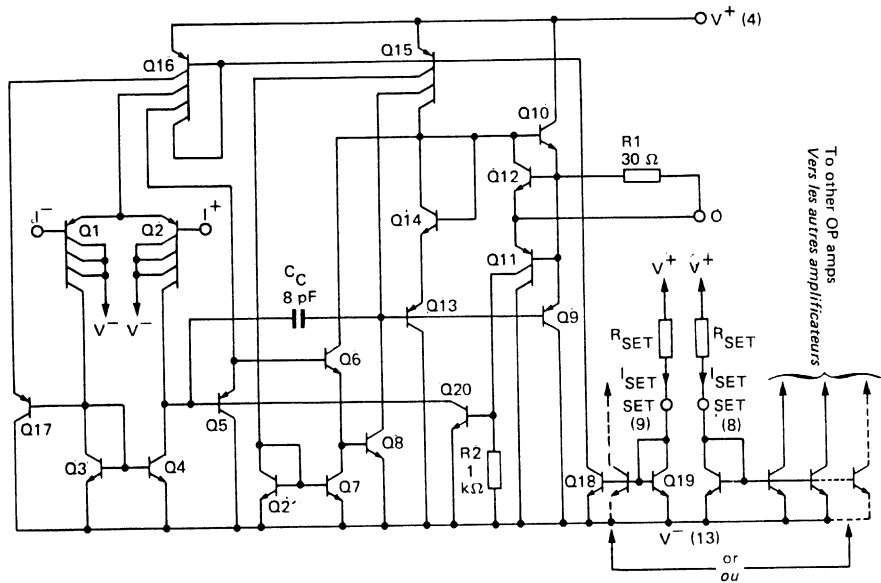
Pin configuration



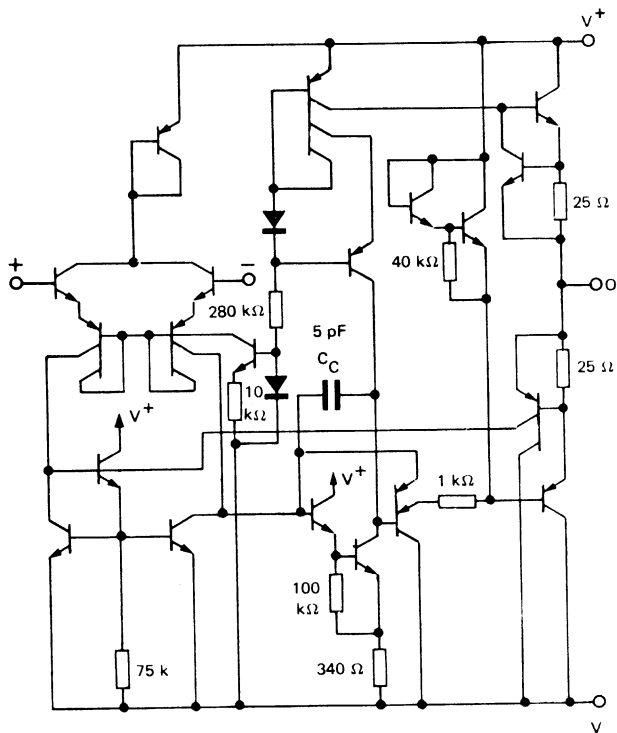
CD391



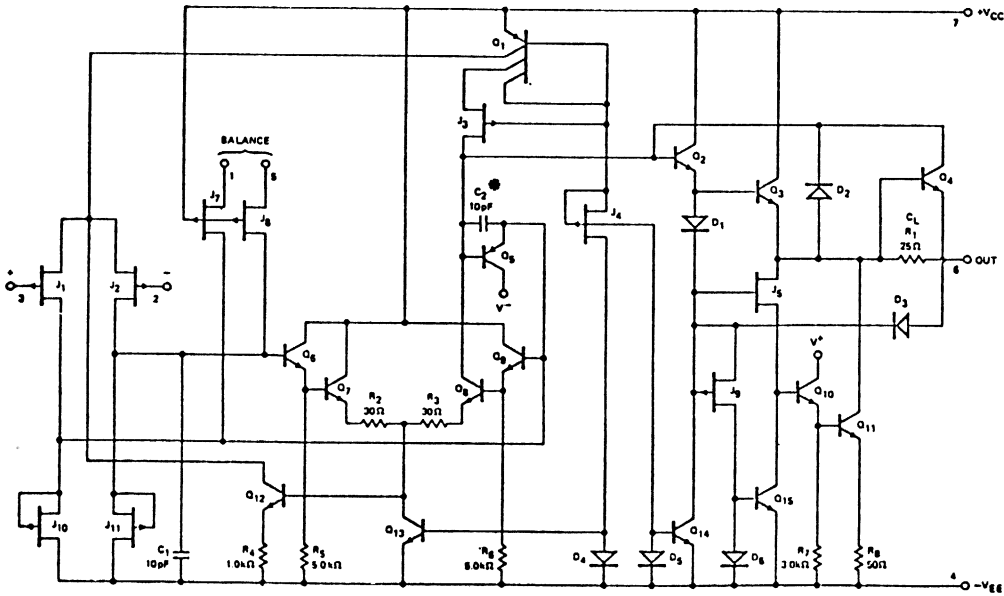
CD392



CD393

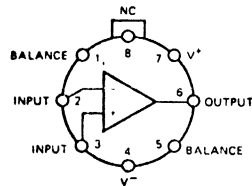


CD394



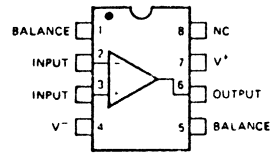
* TDx x157 : $C_2 = 2 \text{ pF}$

CM8/1

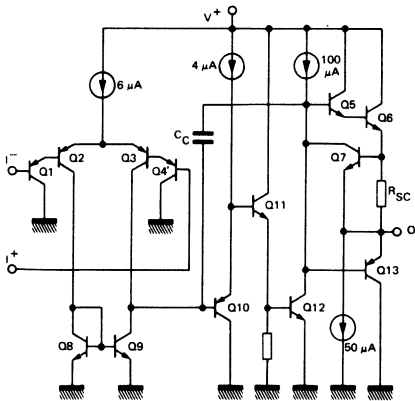


connected to case.

DP8/3

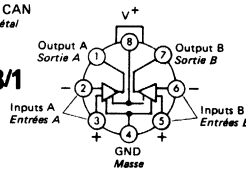


CD395



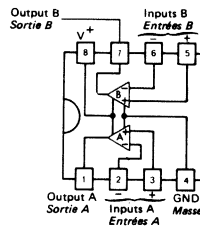
TO-99 (CB-11)
METAL CAN
Boîtier métal

CM8/1



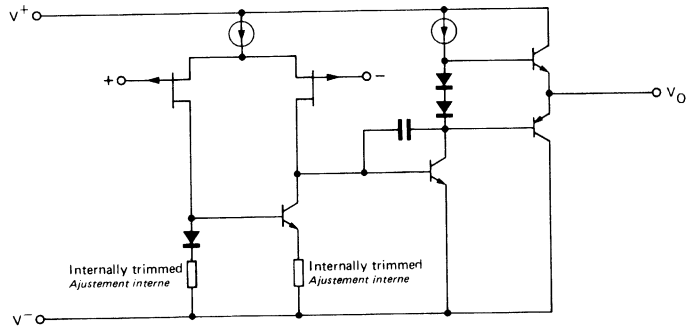
CB-98
DUAL IN LINE
PACKAGE
Boîtier enfichable

DP8/3

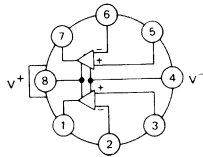


- Wide power supply range :
- Single supply 3 V to 30 V } for TDx0158
- Dual supplies $\pm 1,5 \text{ V}$ to $\pm 15 \text{ V}$ }
- Single supply 3 V to 26 V } for TDF2904 DP
- Dual supplies $\pm 1,5 \text{ V}$ to $\pm 13 \text{ V}$ }

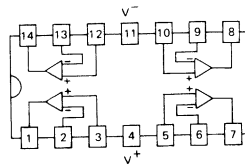
CD396



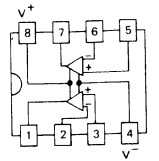
TO-99 (CB-11) CM8/1
 METAL CAN Boîtier métallique
 Top view Vue de dessus



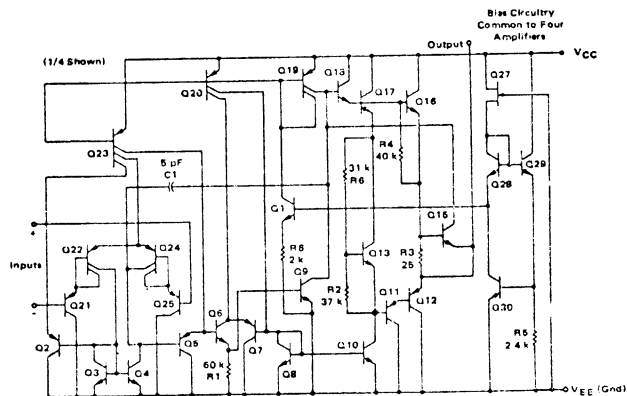
TO-116 (CB-2) DP14/4
 DUAL IN LINE PACKAGE Boîtier enfichable



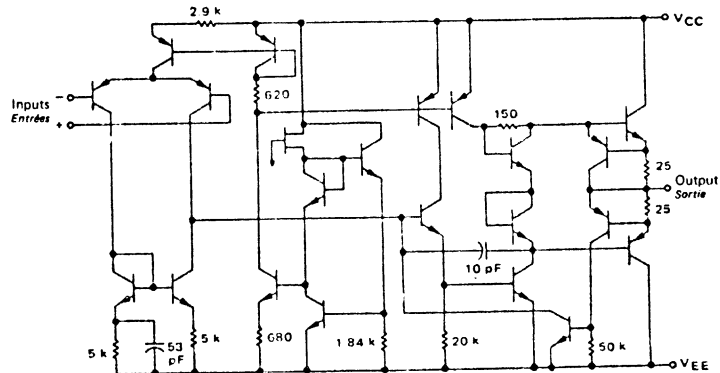
CB-98 DP8/3
 DUAL IN LINE PACKAGE Boîtier enfichable
 Top view Vue de dessus

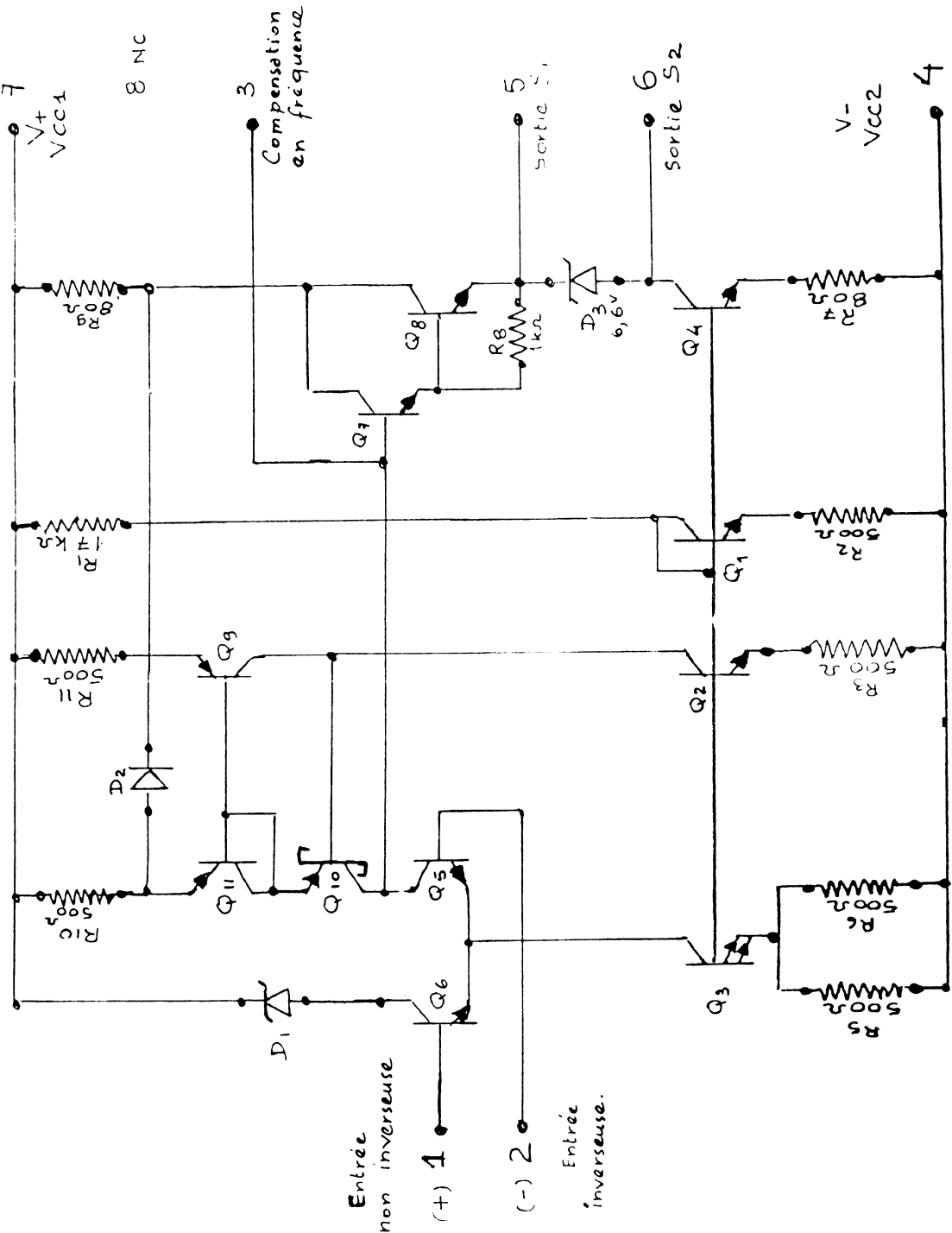


CD397

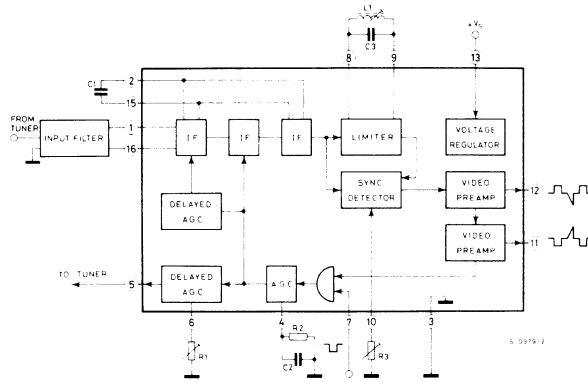


CD398

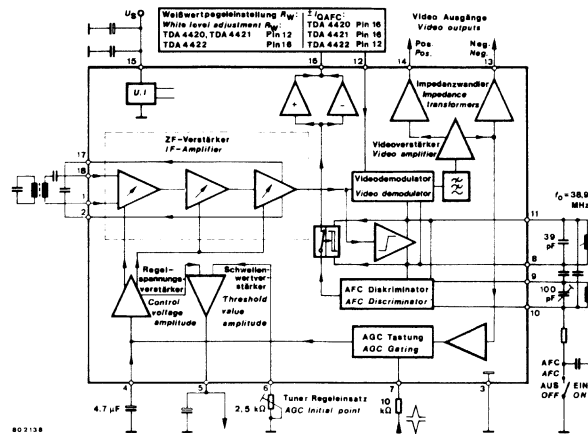


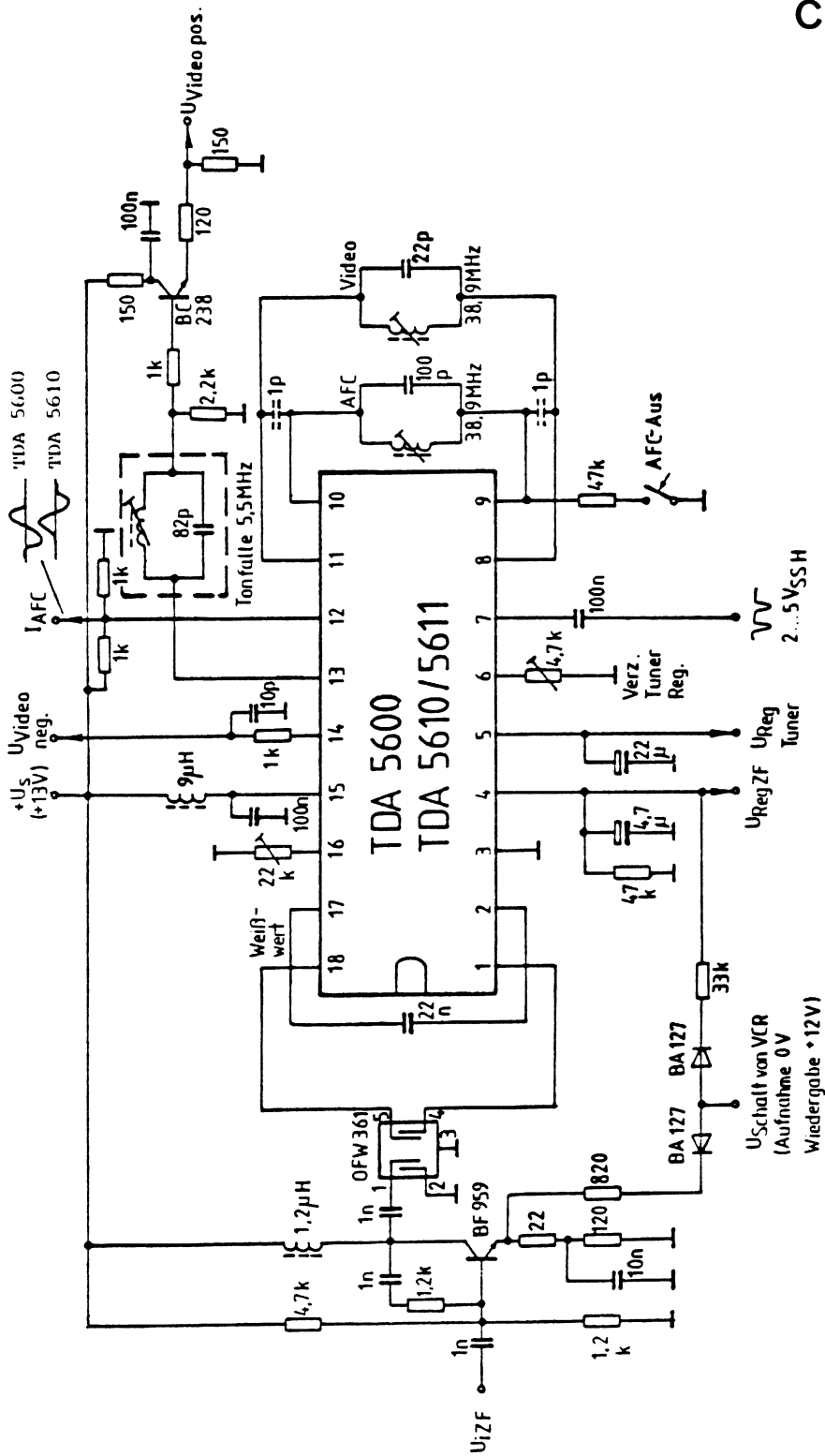


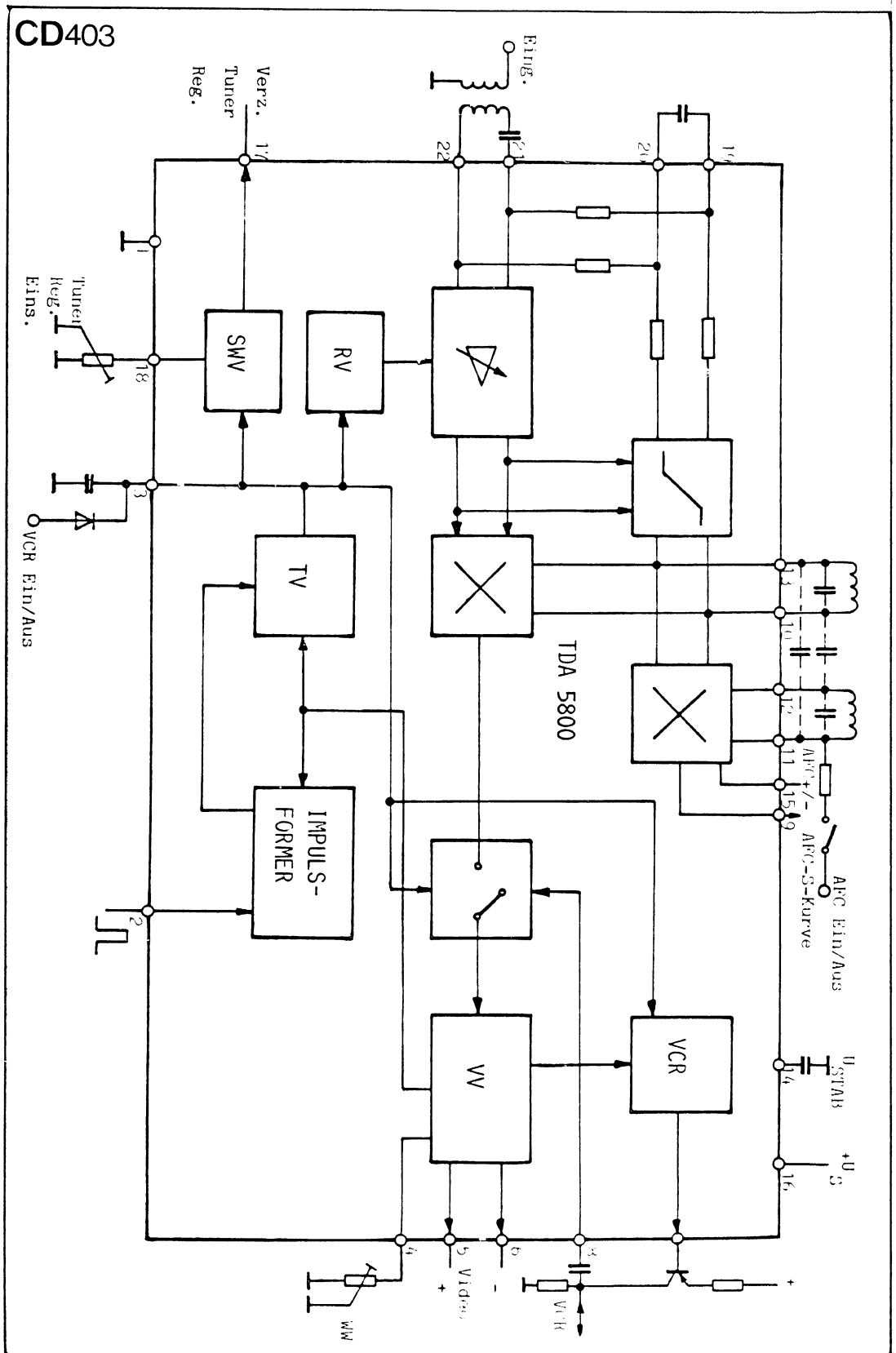
CD400

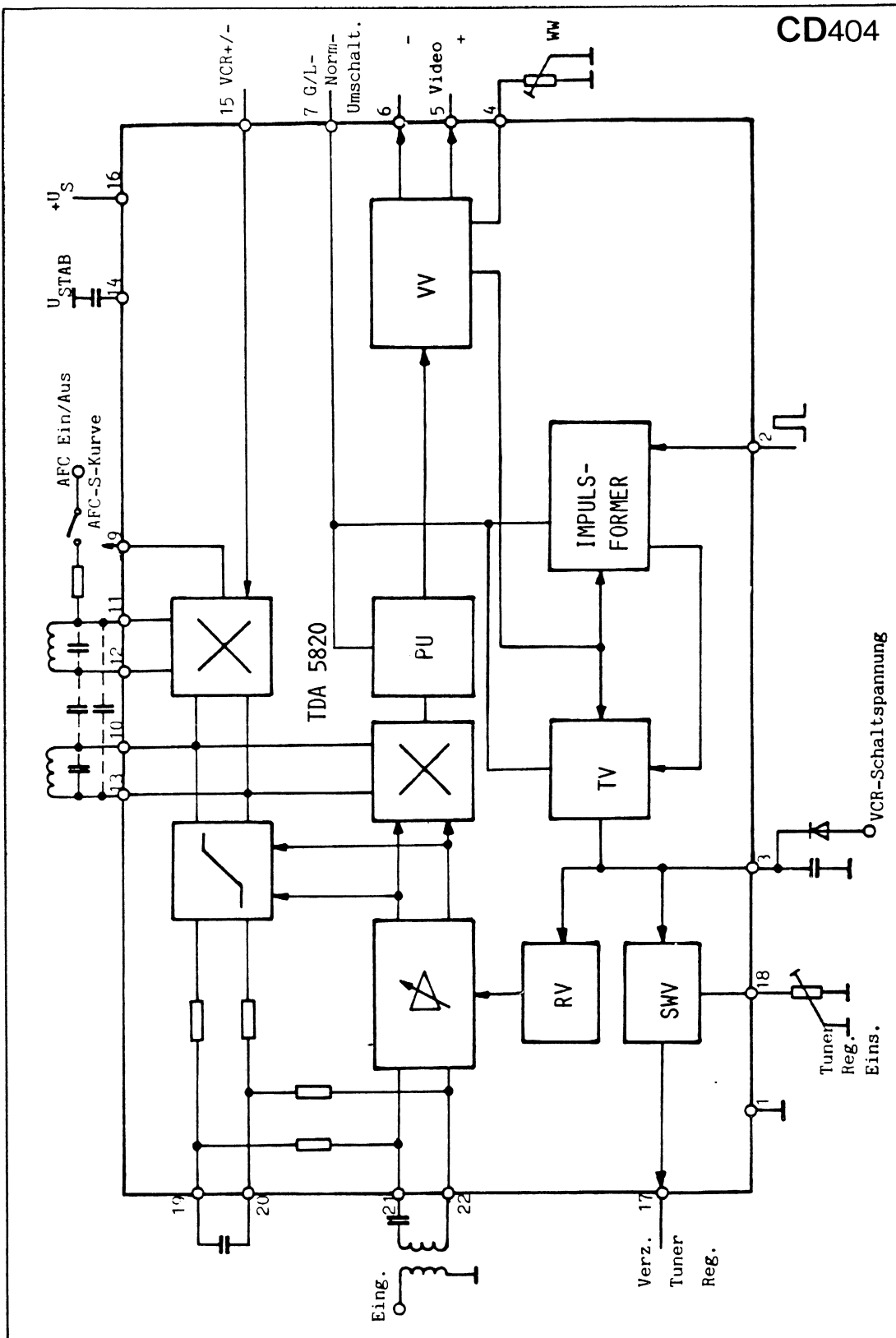


CD401

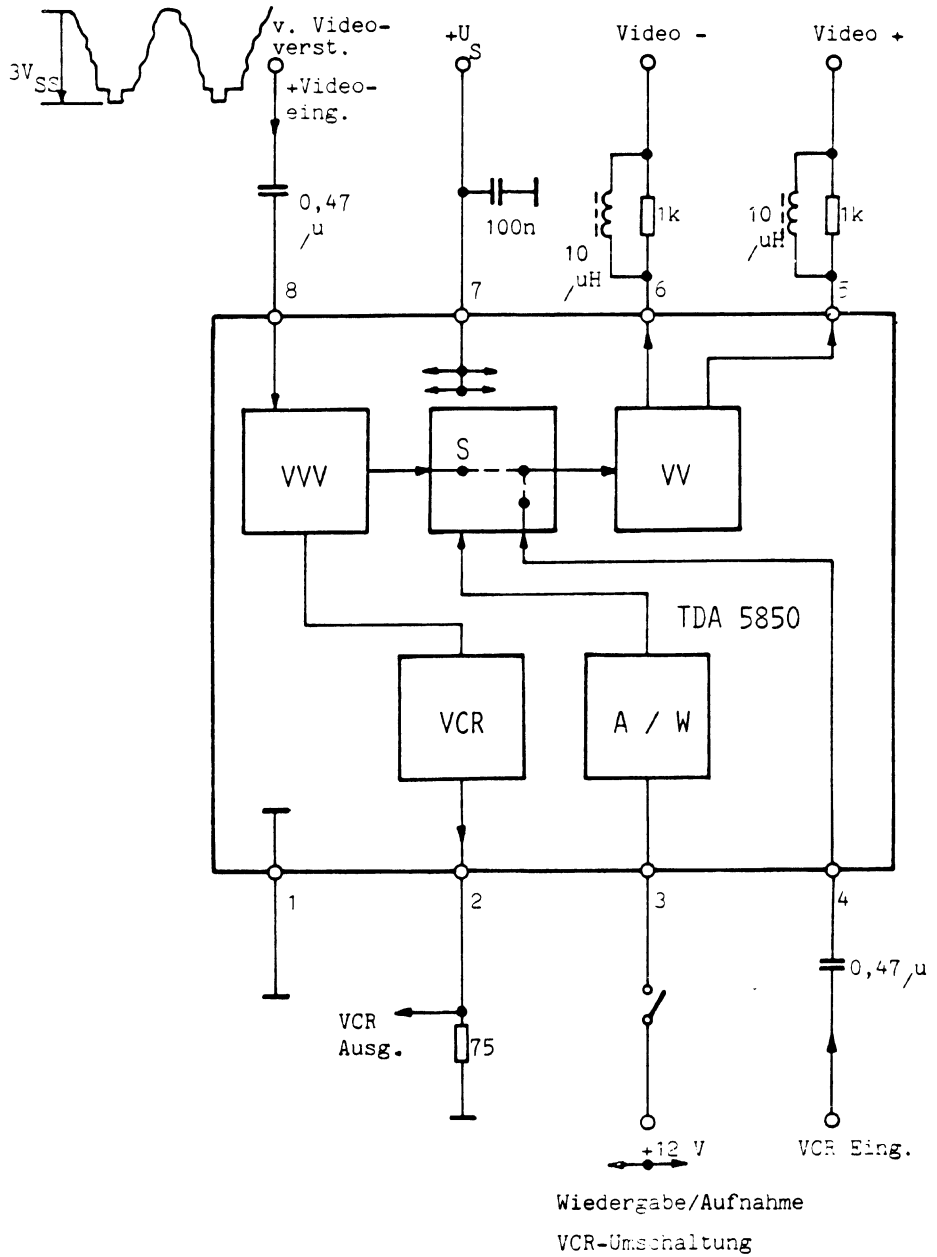




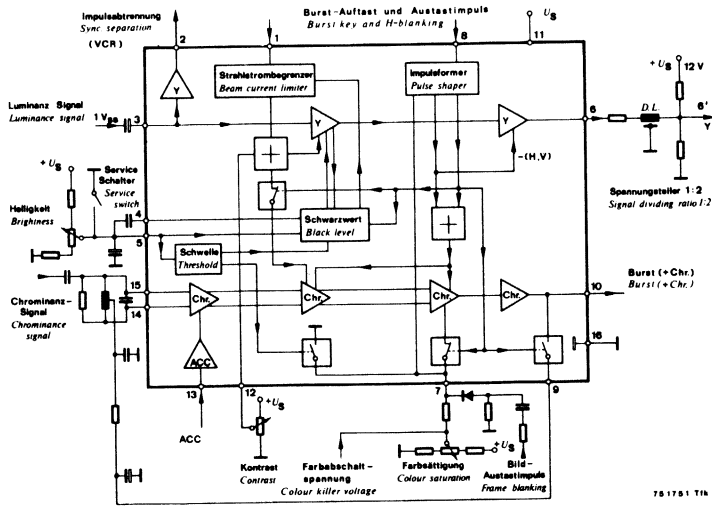




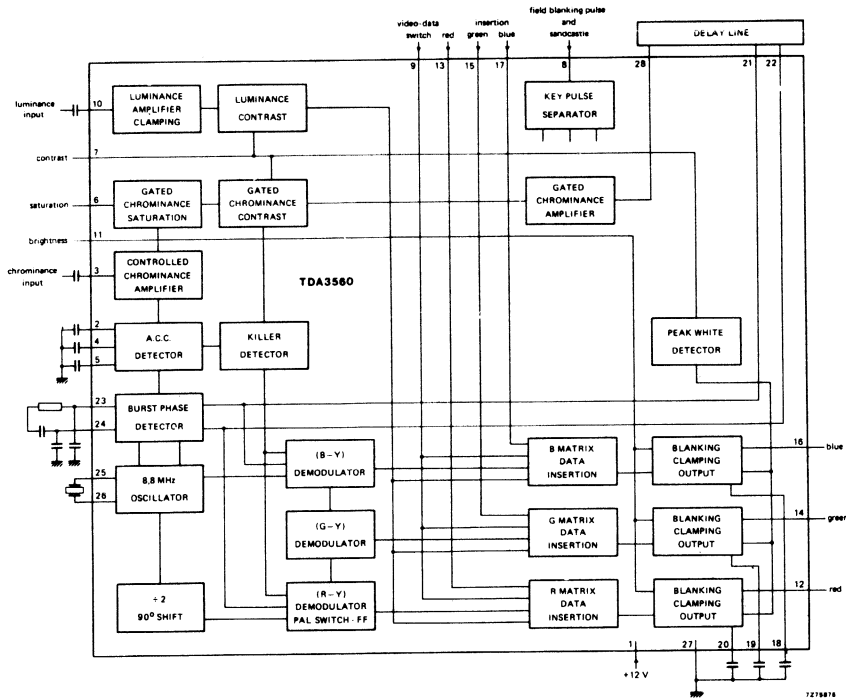
CD405



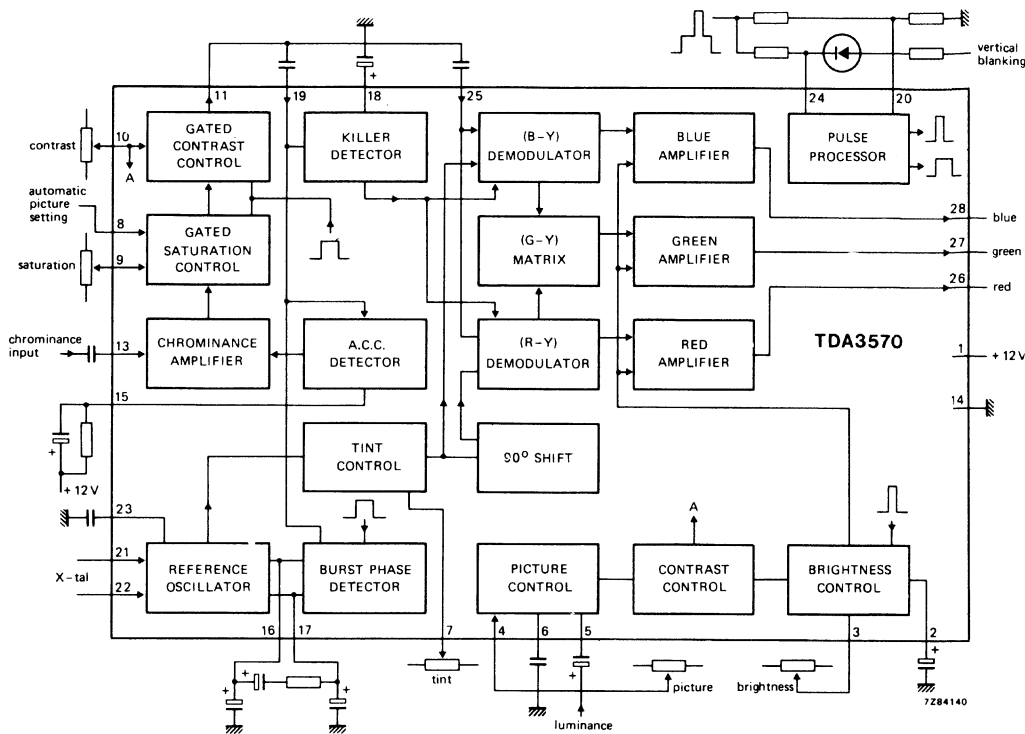
CD406



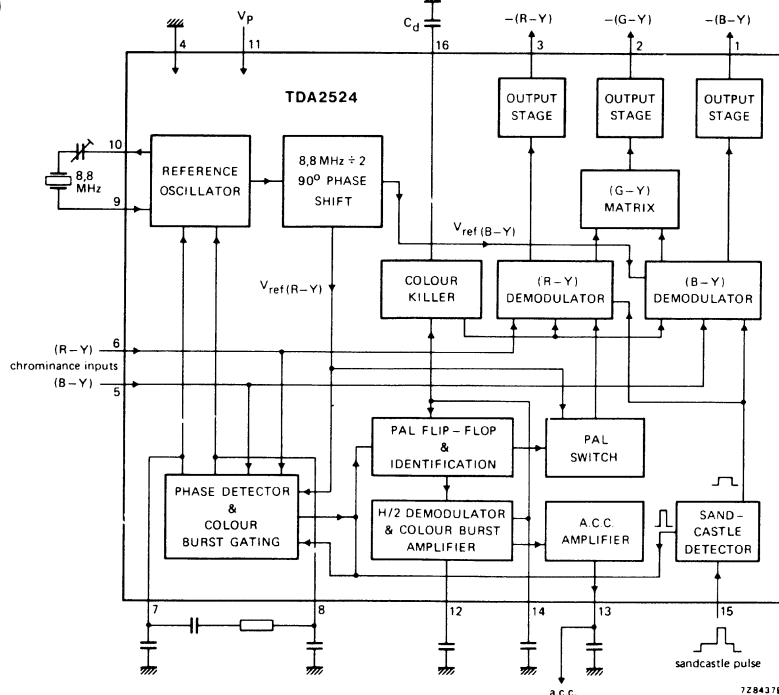
CD407



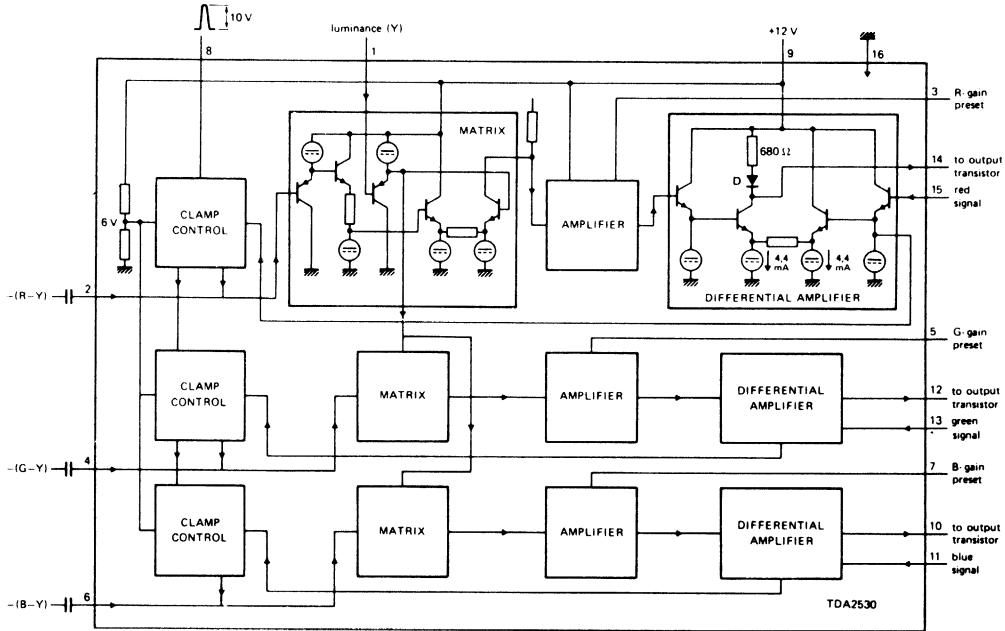
CD408



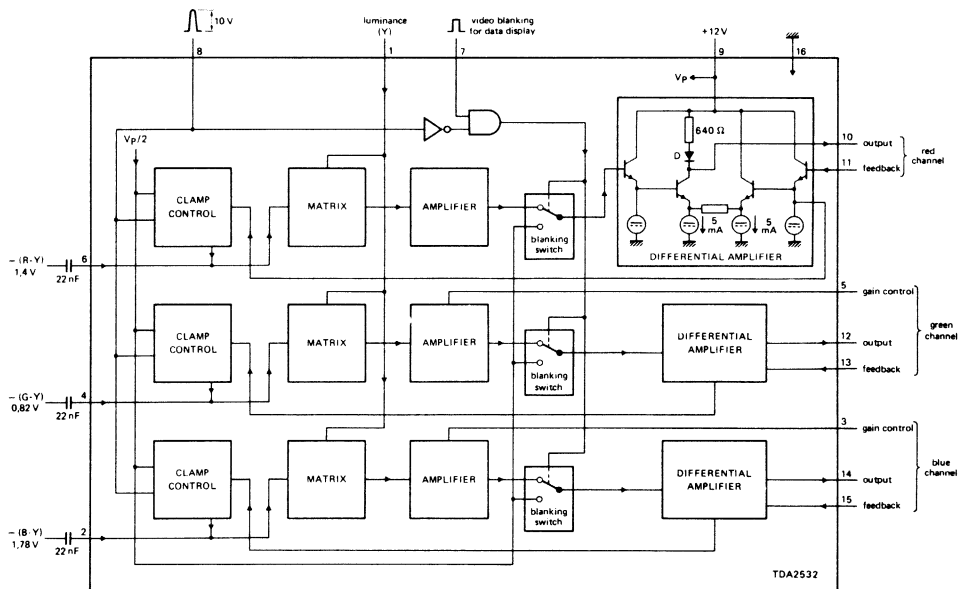
CD409



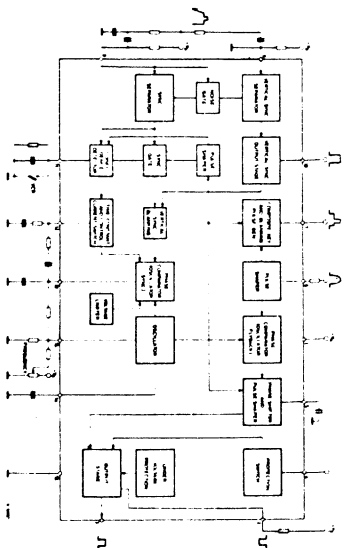
CD410



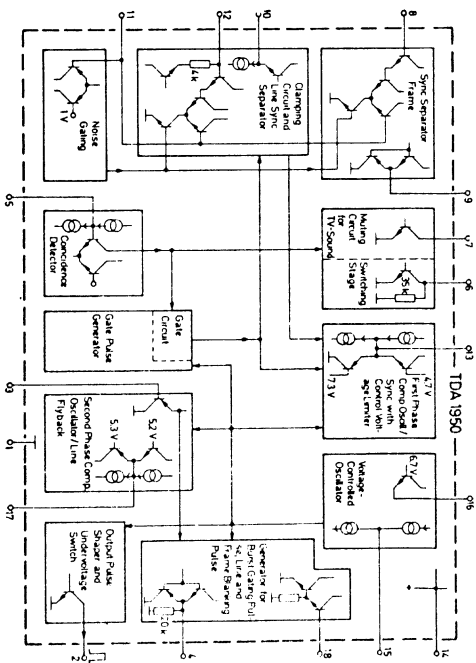
CD411



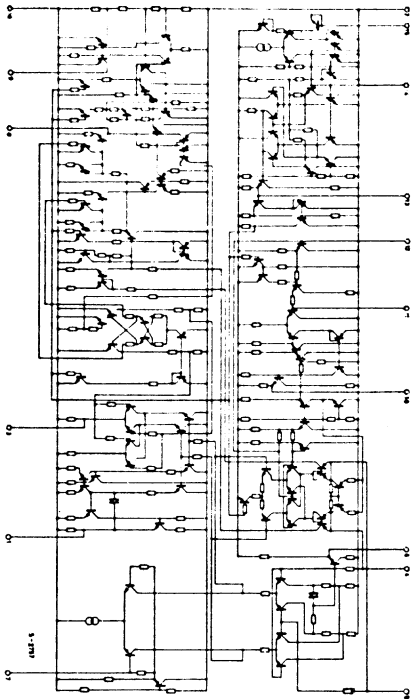
CD412



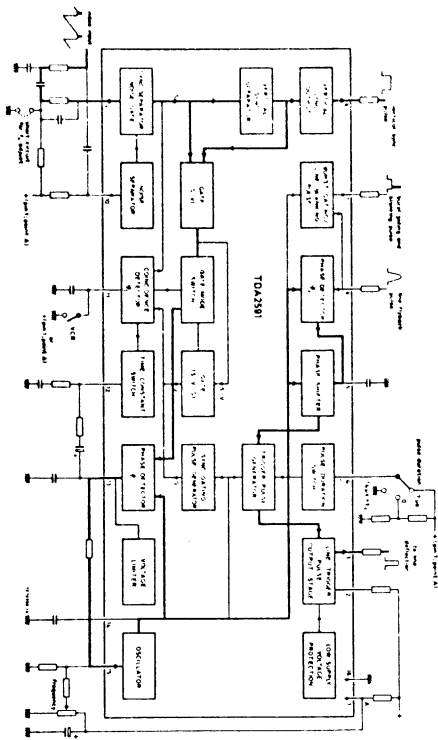
CD413



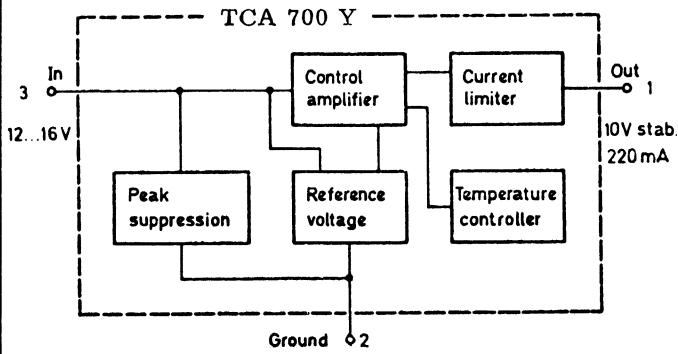
CD414



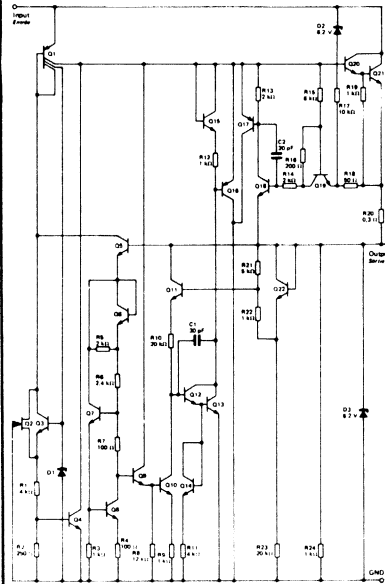
CD415



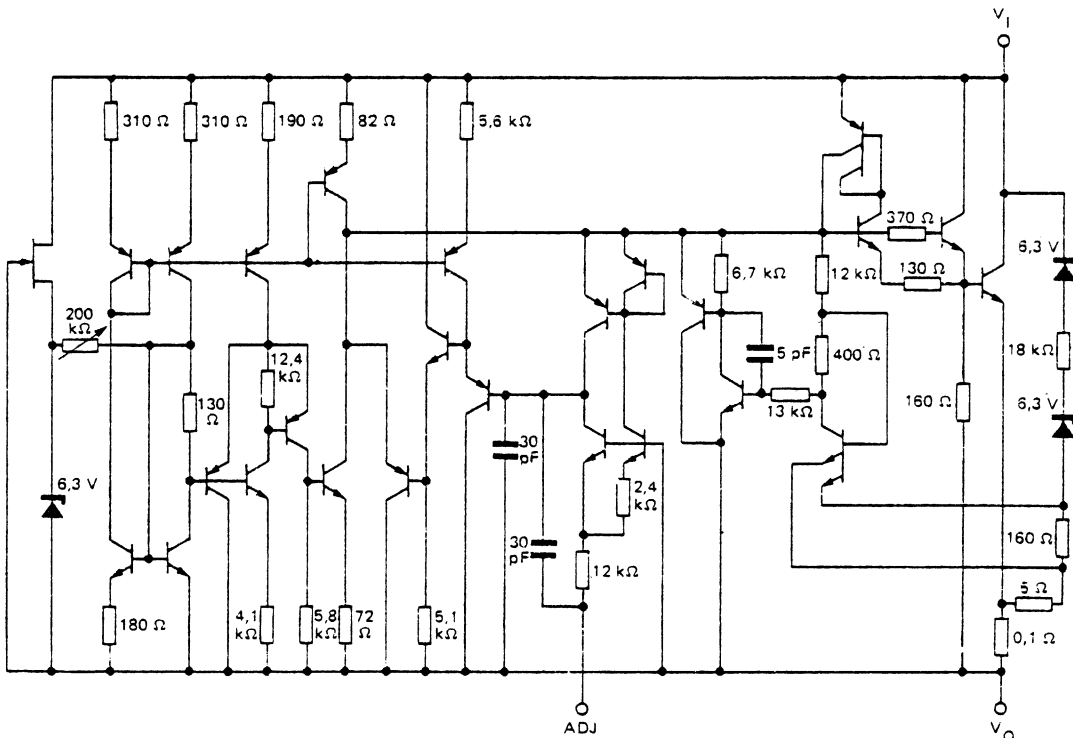
CD416



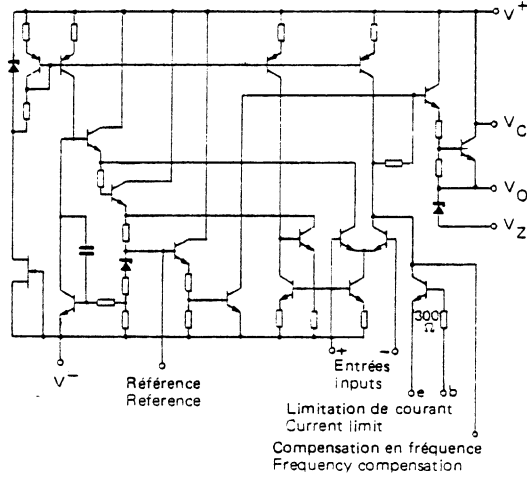
CD418



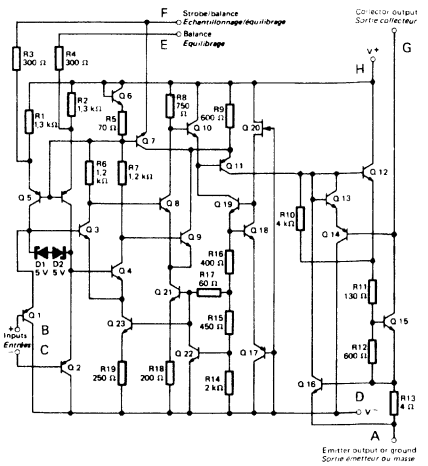
CD417



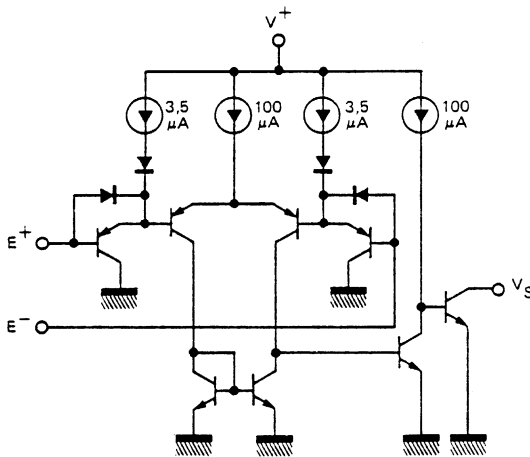
CD419



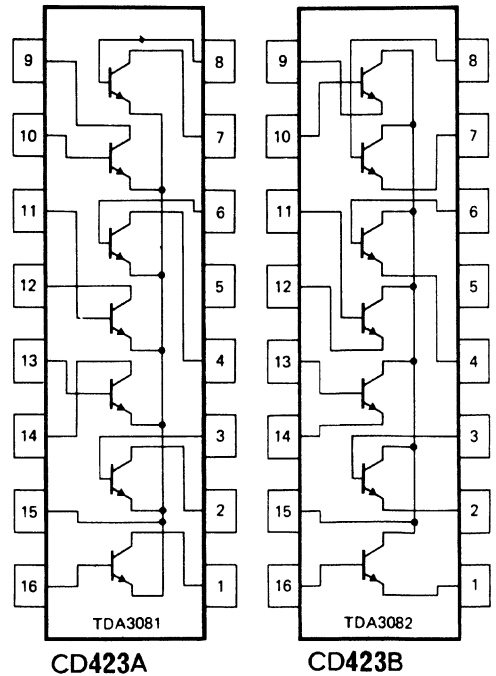
CD420



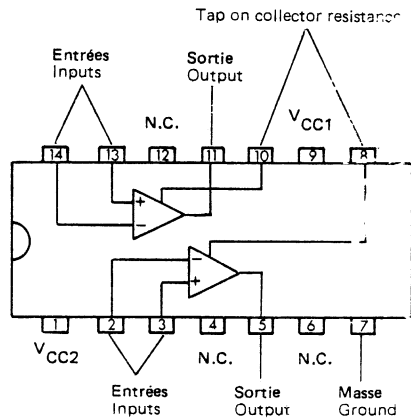
CD421



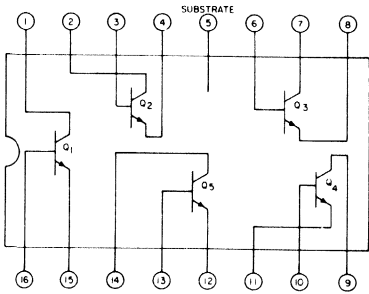
CD423A/B



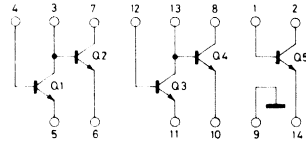
CD422



CD424

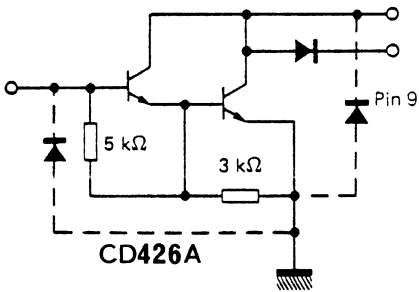


CD425

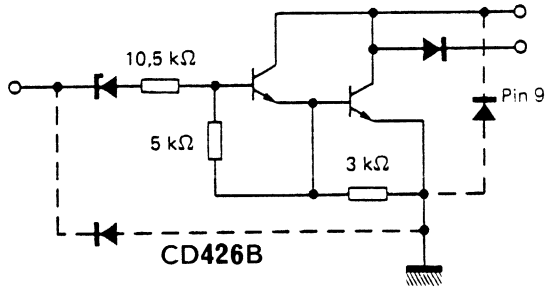


CD426A/B/C/D

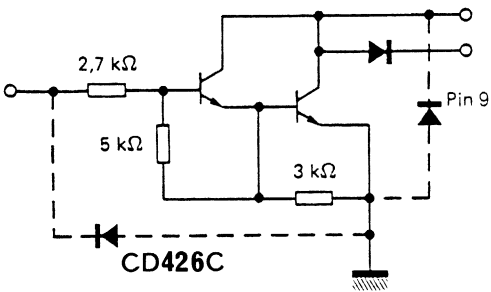
TEB1411



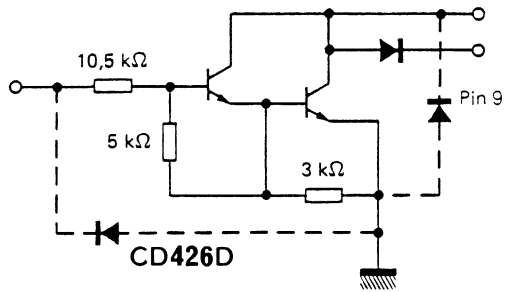
TEB1412



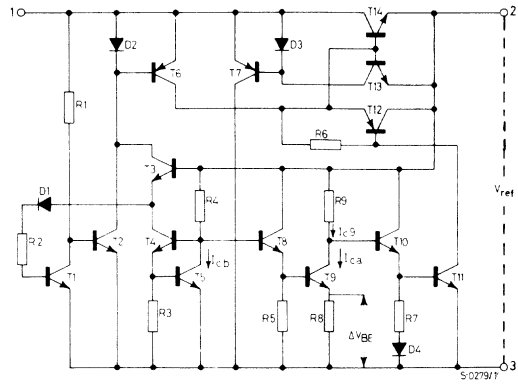
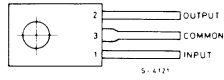
TEB1413



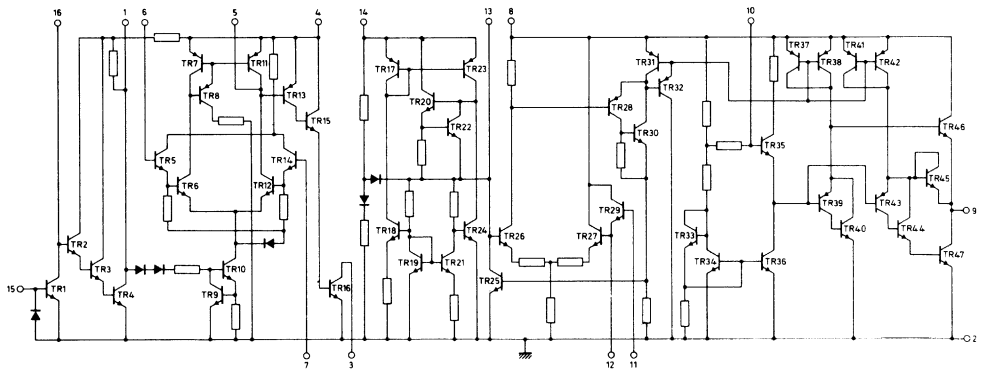
TEB1416

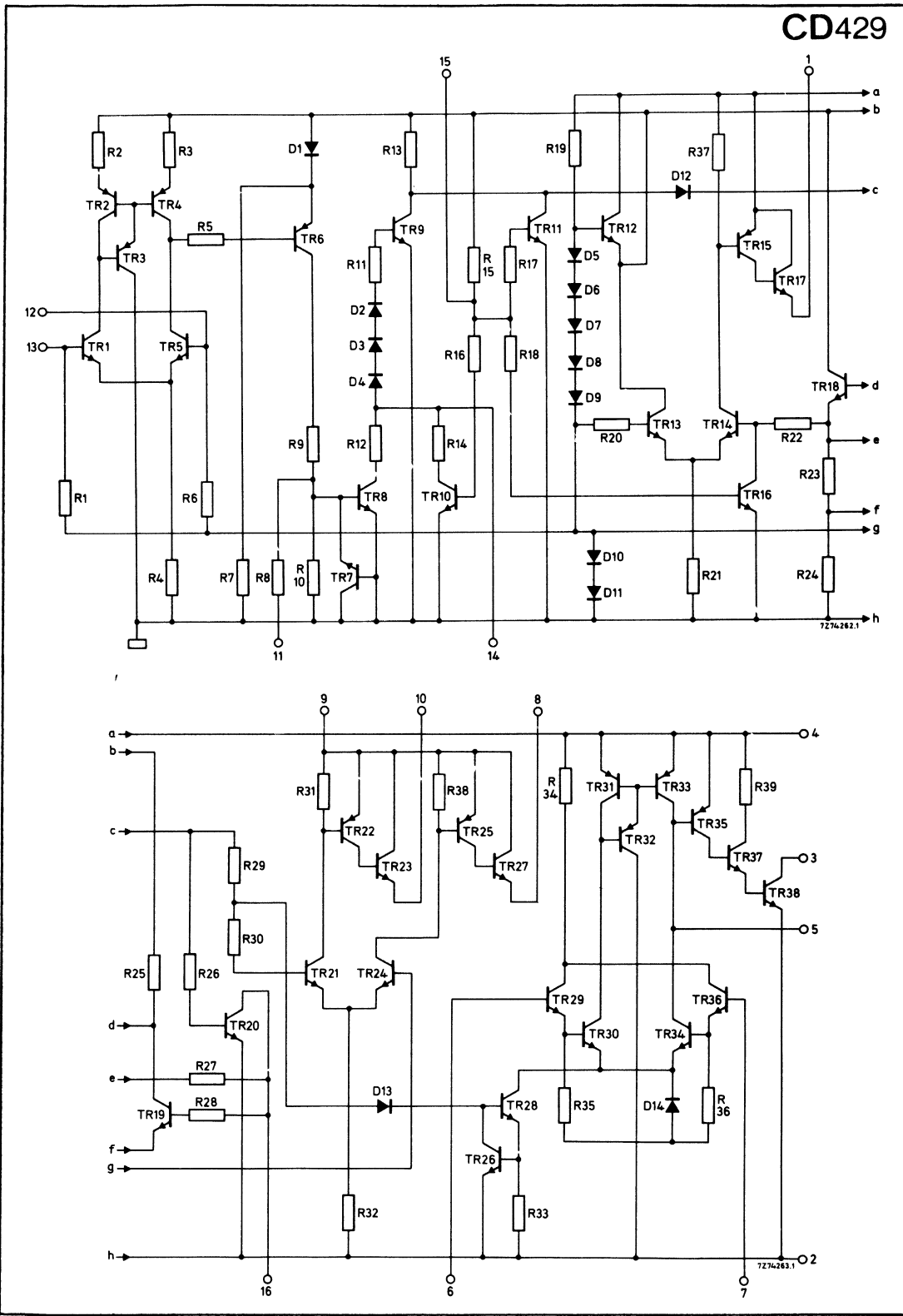


CD427

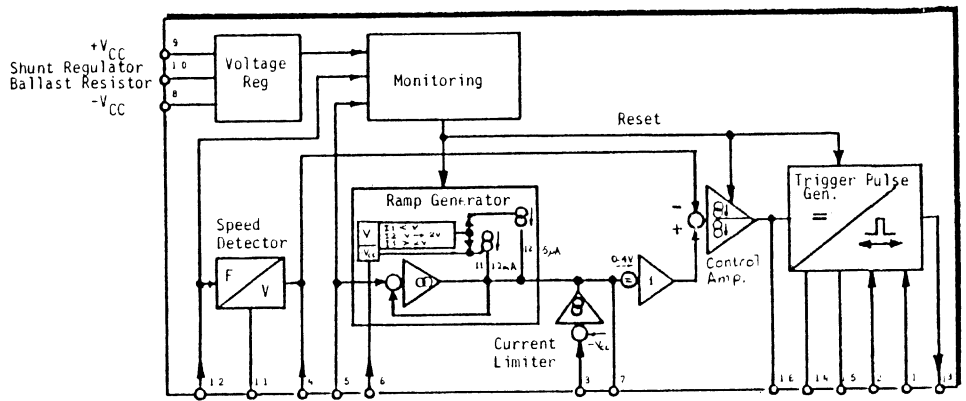


CD428



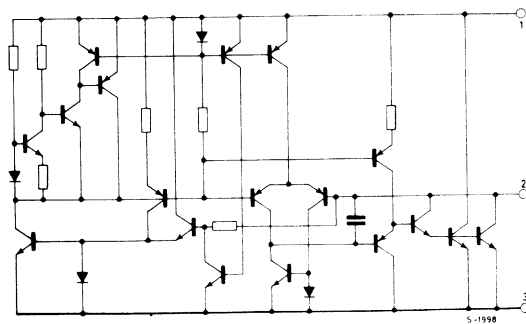


CD430

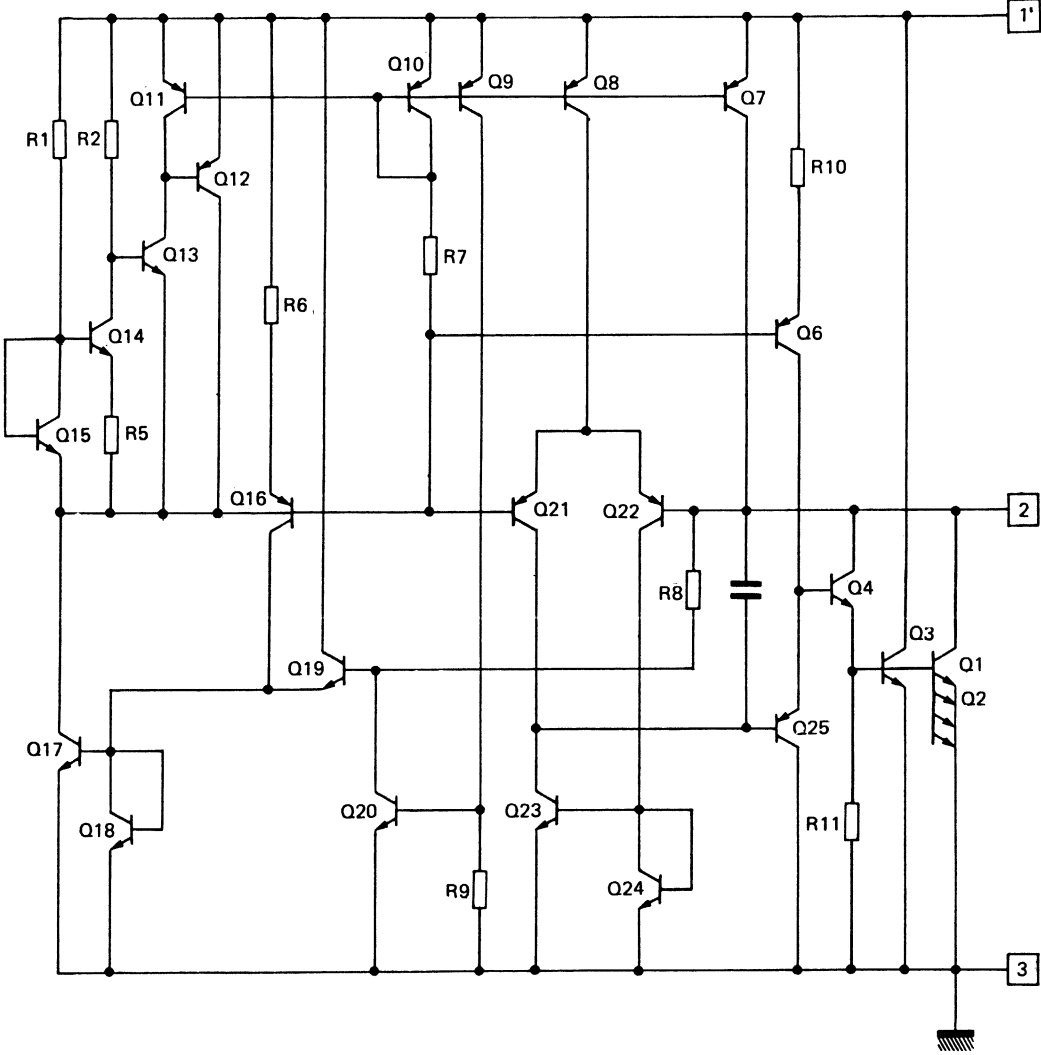


- Digital Speed Sense
- F/Vc Pump Capacitor
- Actual Speed
- Set Speed
- Ramp Current Gen Control
- Motor Current Limit
- Ramp Gen Timing
- Closed Loop Stability
- Sawtooth Capacitor
- Sawtooth Set Current
- Voltage Synchronisation
- Current Synchronisation
- Trigger Pulse Output

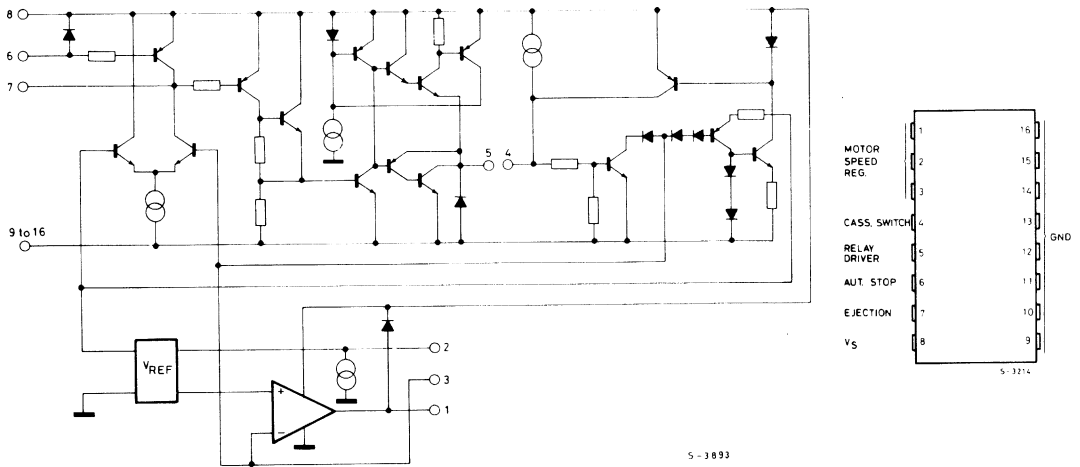
CD431A



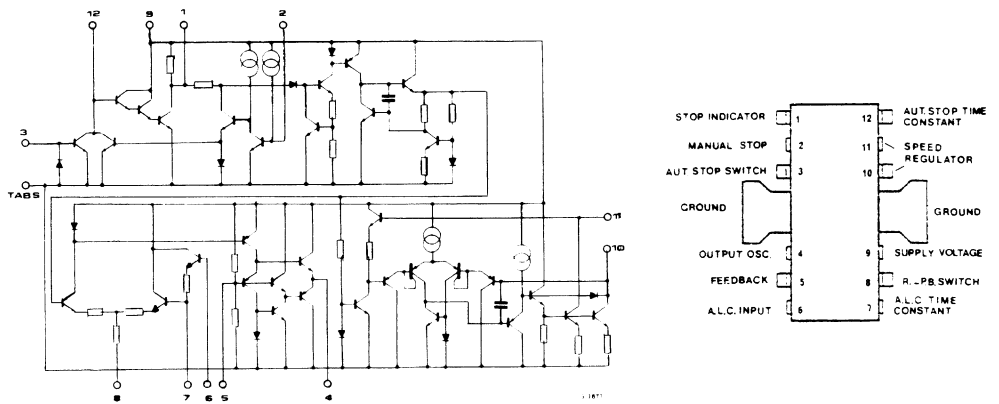
CD431B



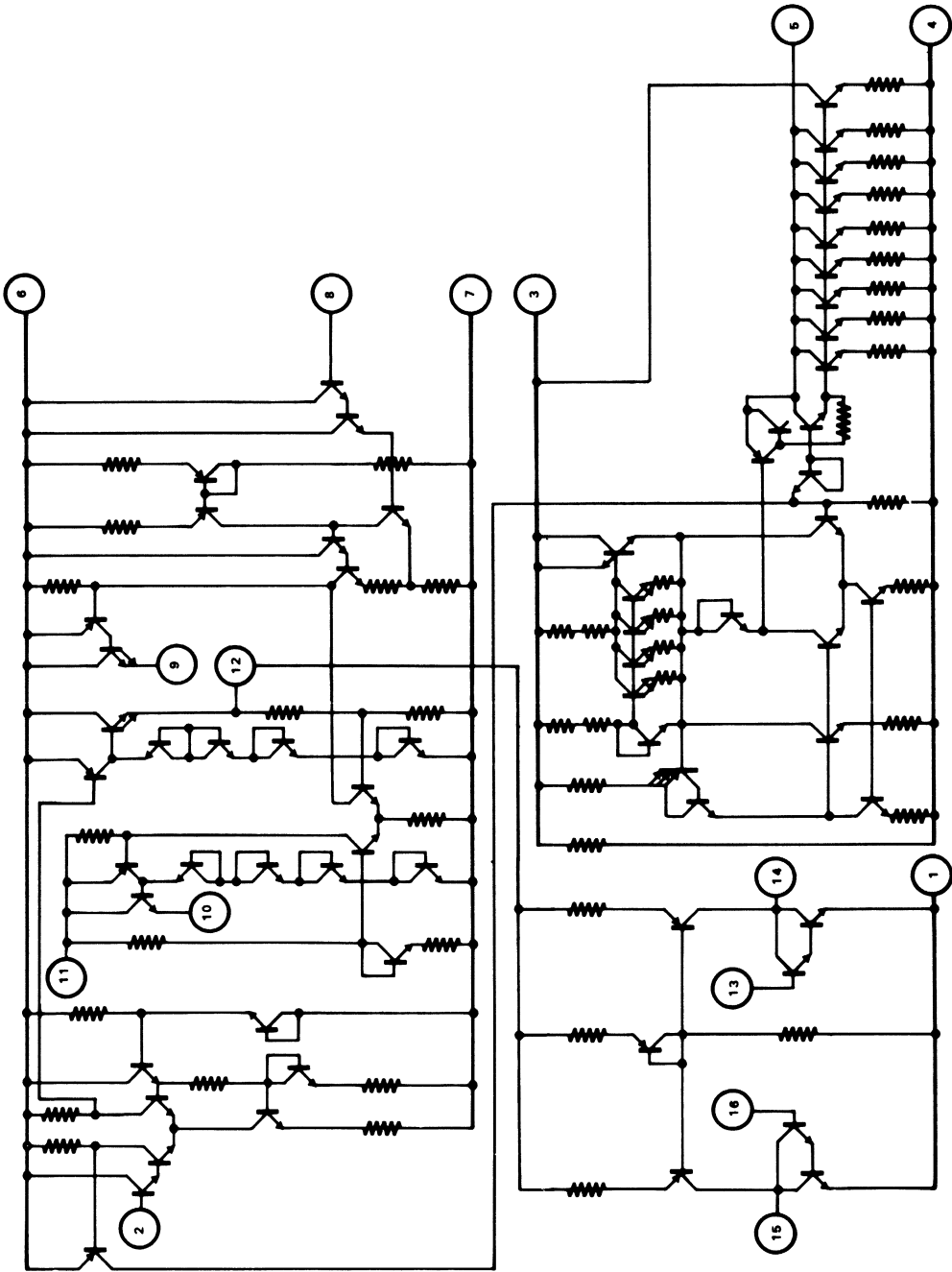
CD432



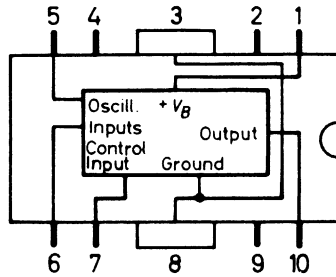
CD433



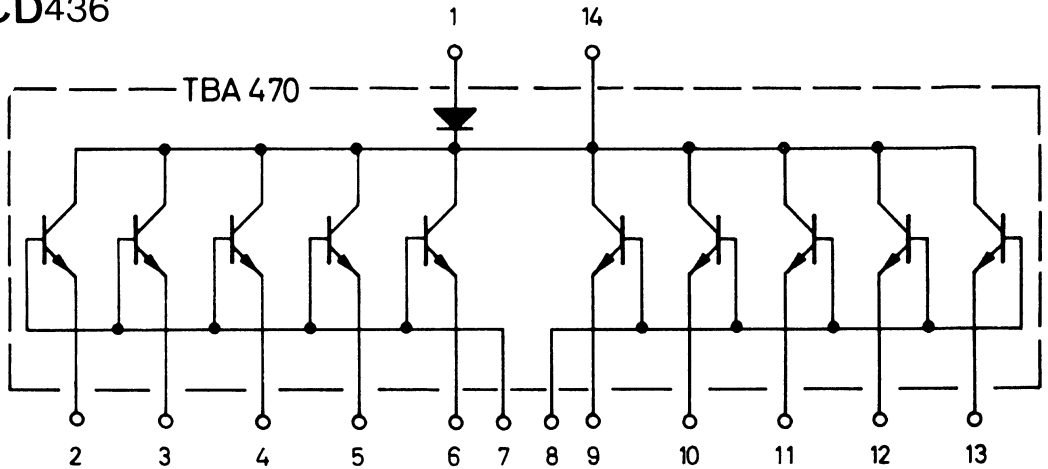
CD434



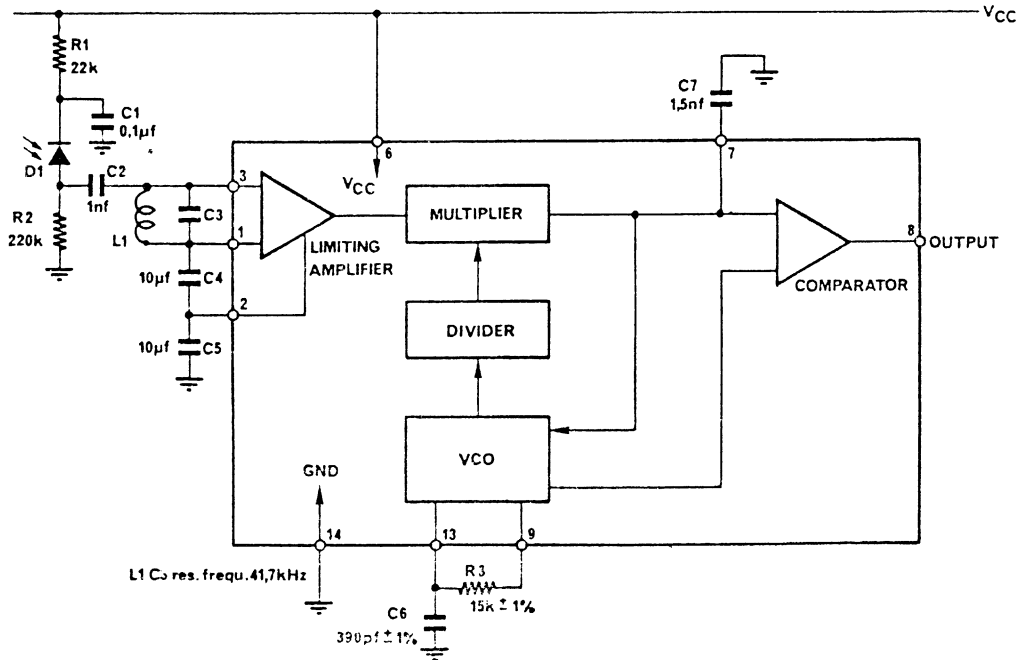
CD435



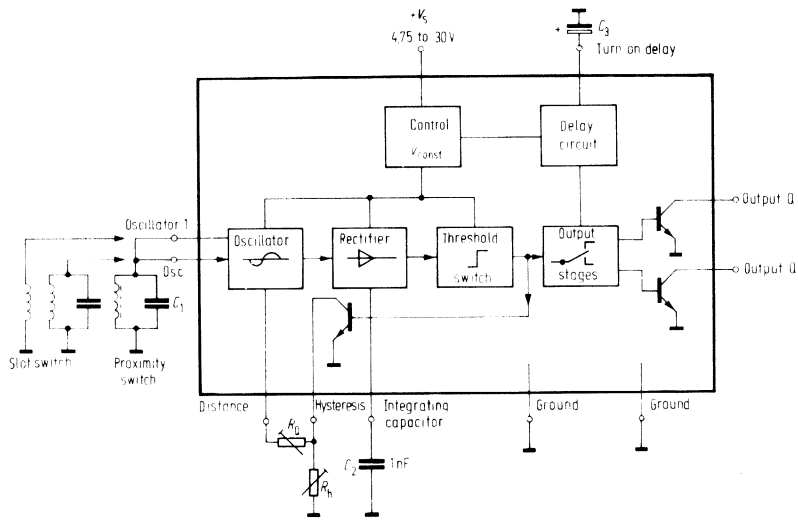
CD436



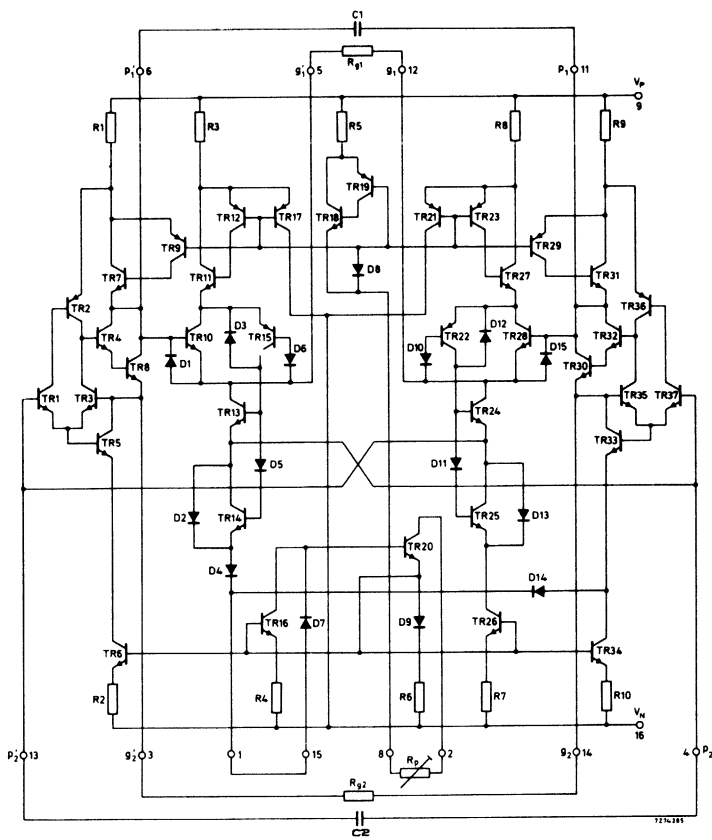
CD437



CD438

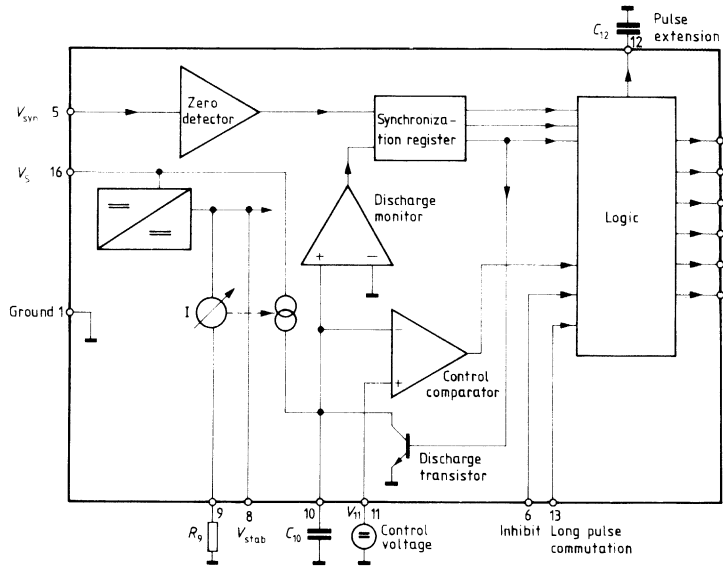


CD439

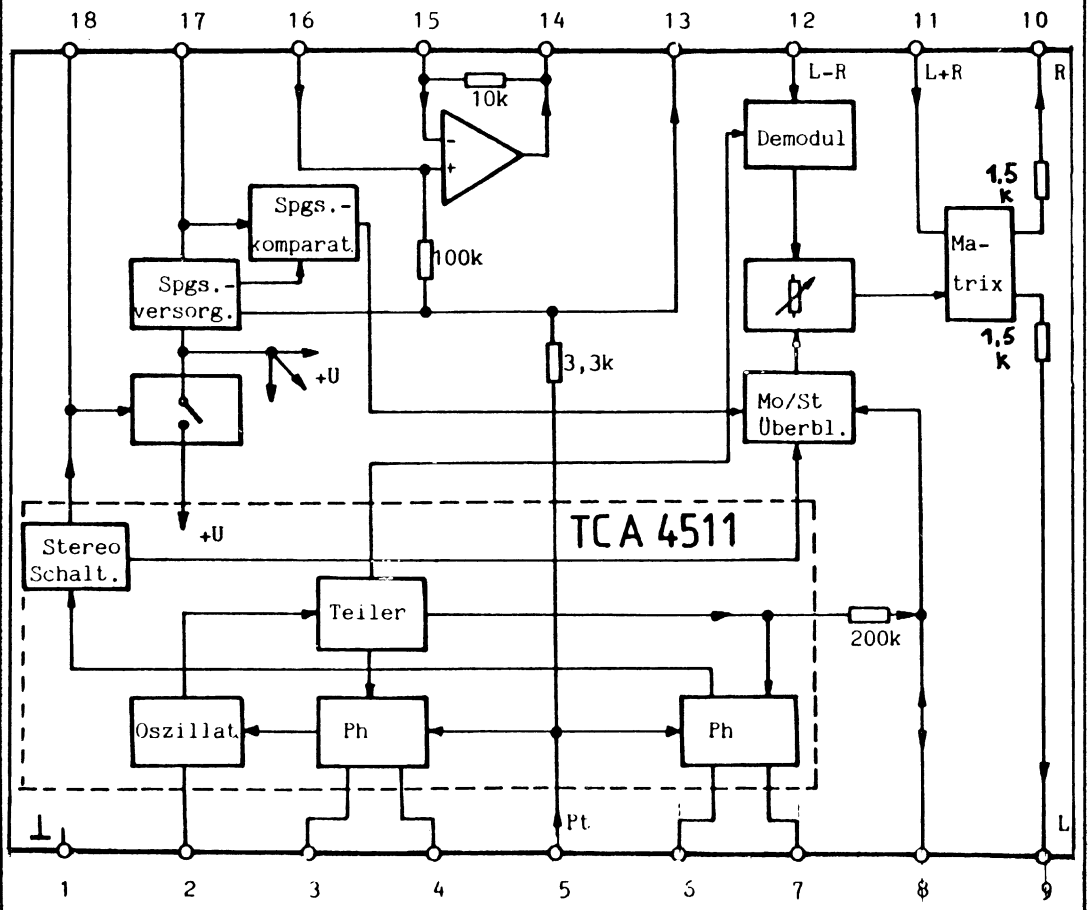


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBILDER

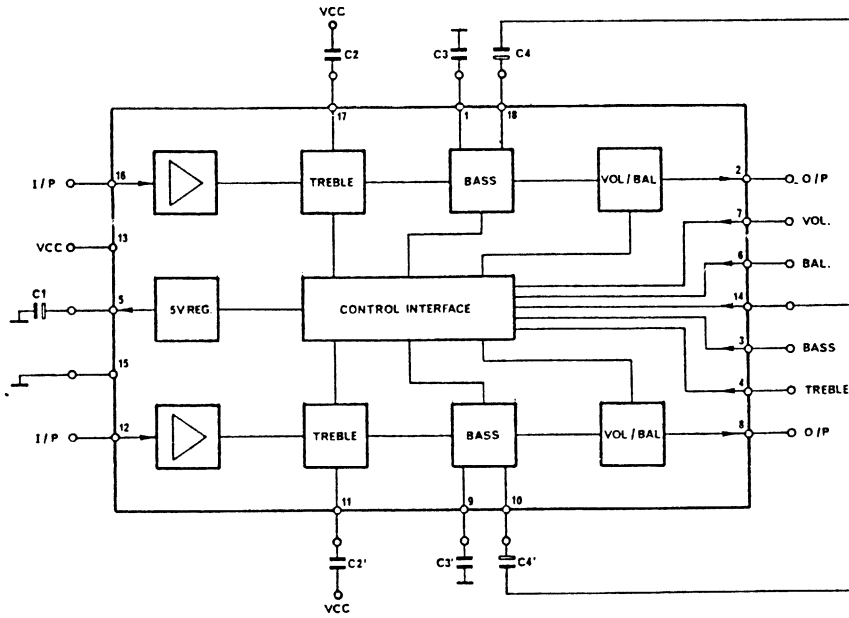
CD440



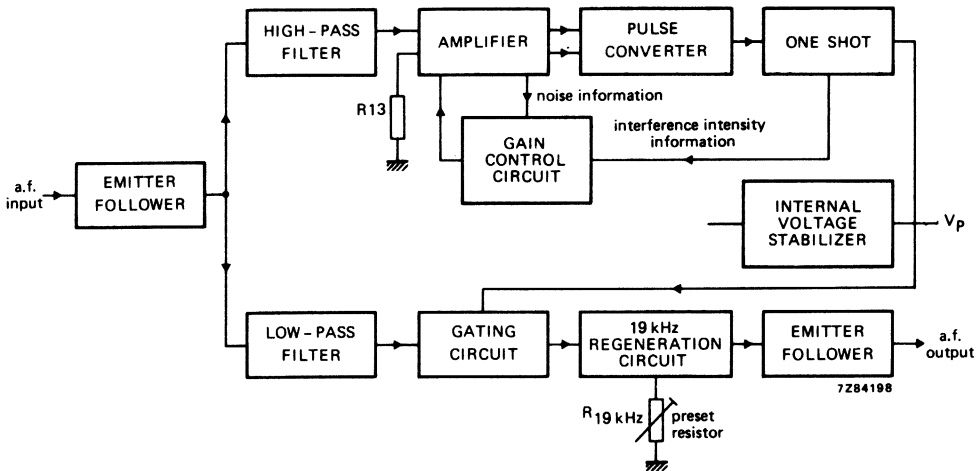
CD441



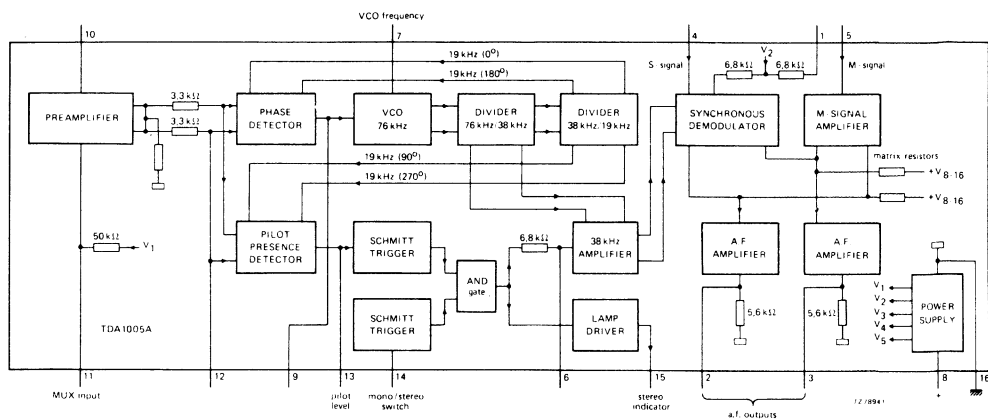
CD442



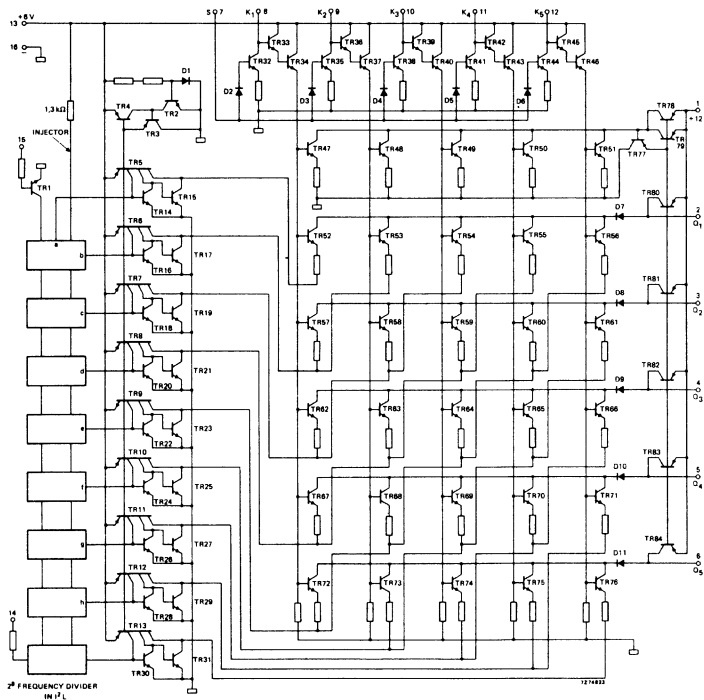
CD443



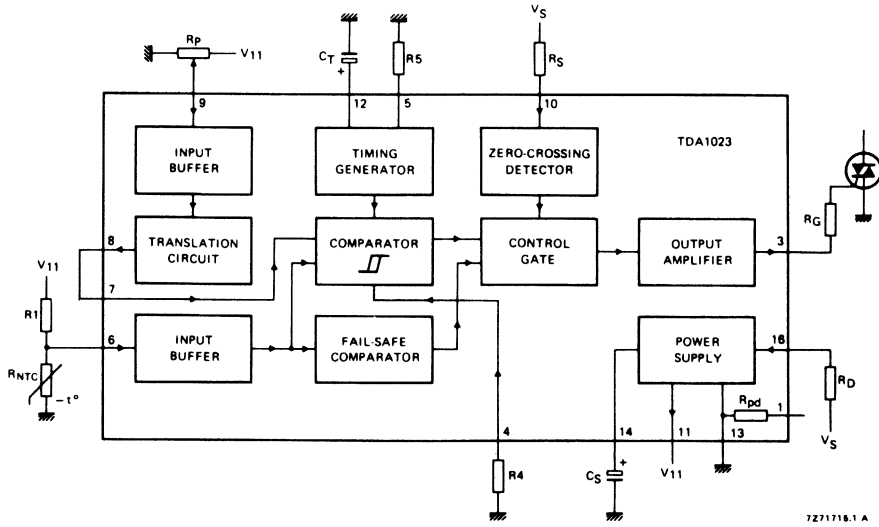
CD444



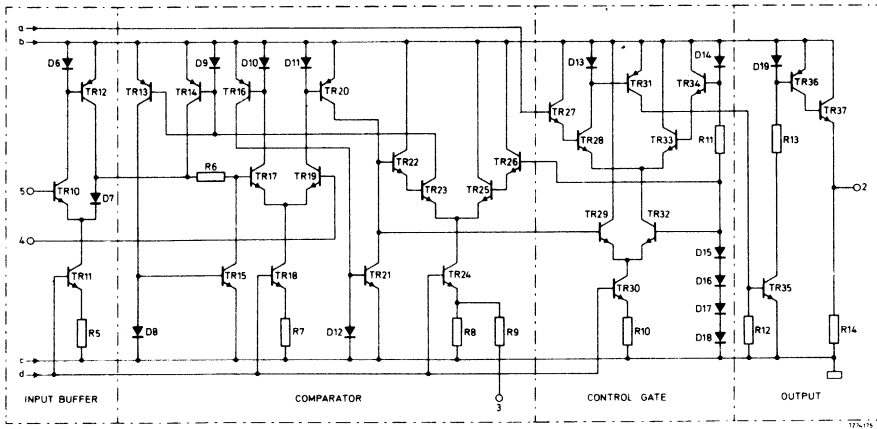
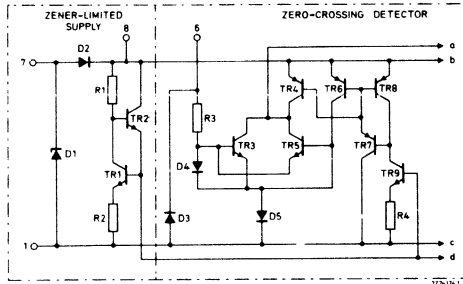
CD445



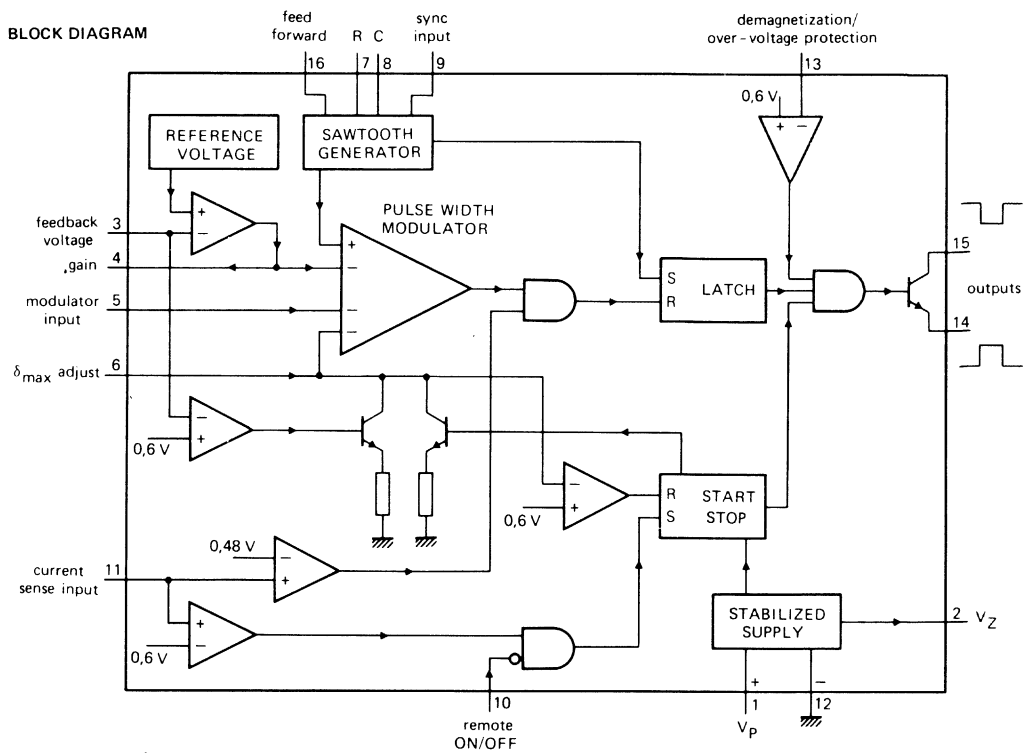
CD446



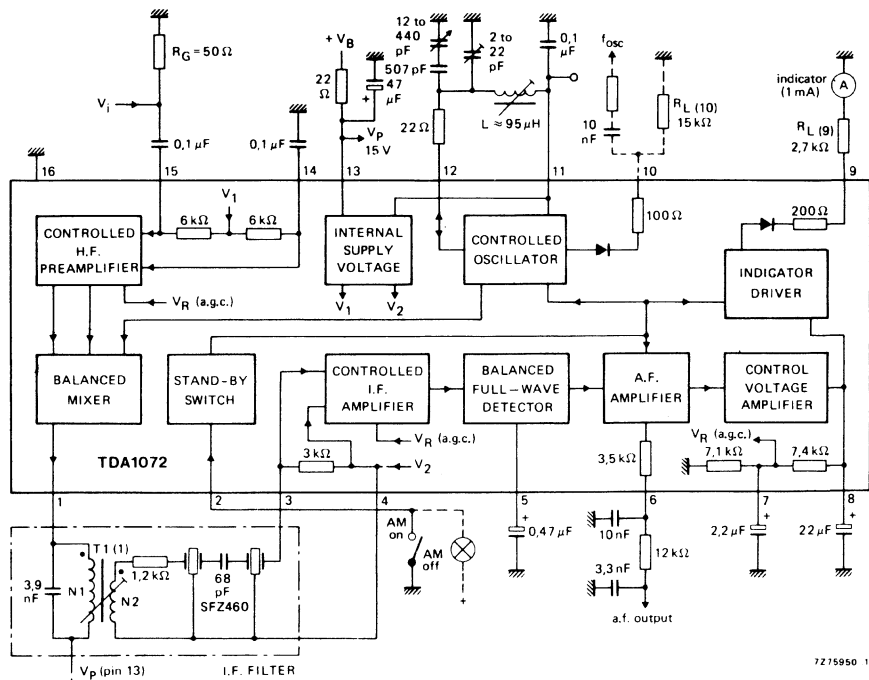
CD447



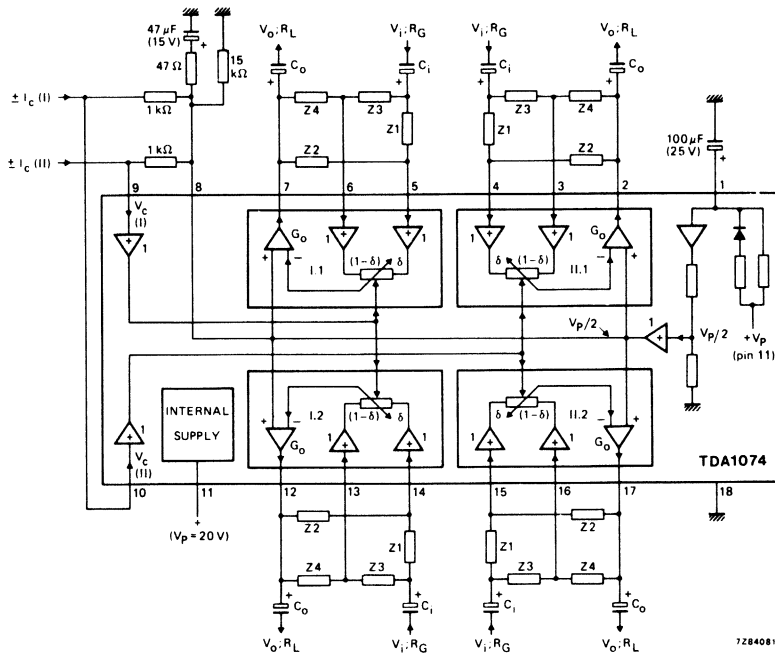
CD448



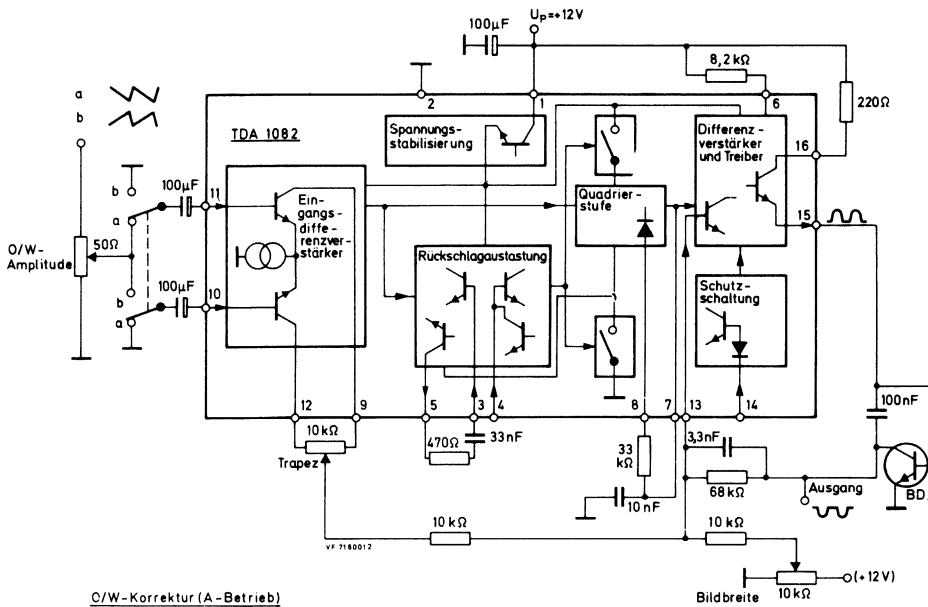
CD449



CD450

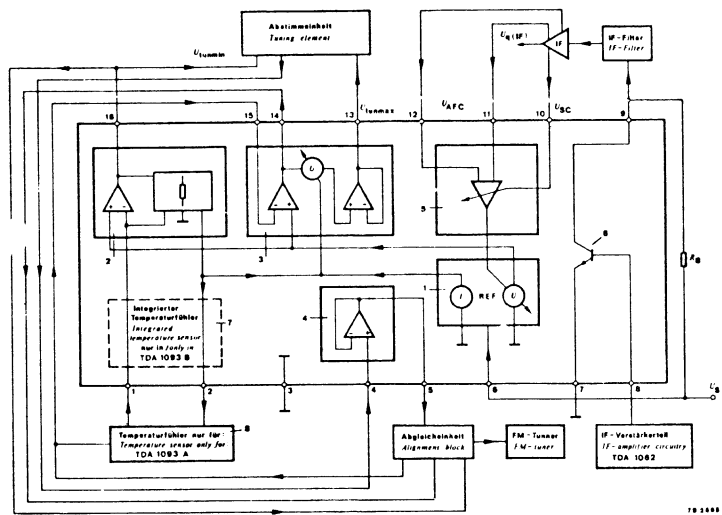


CD451

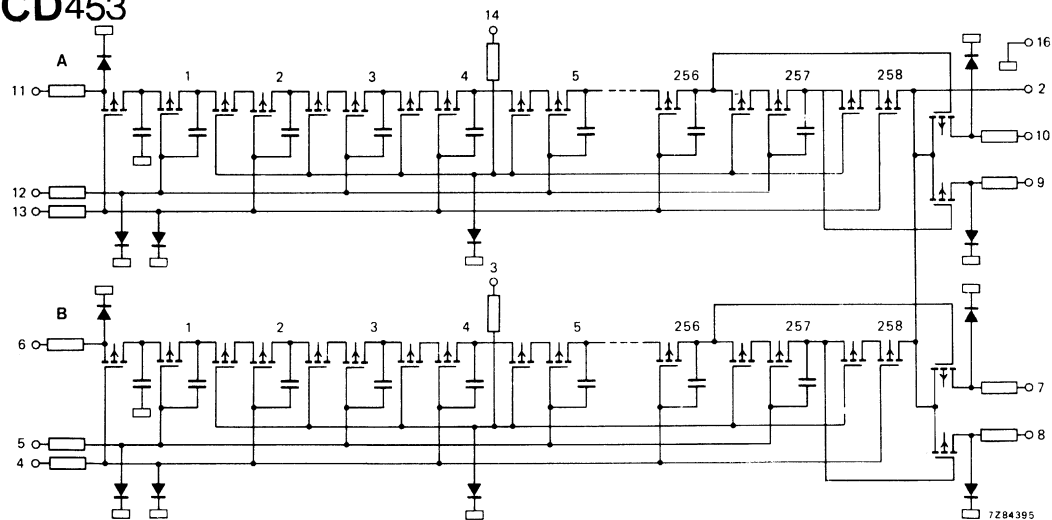


O/W-Korrektur (A-Betrieb)

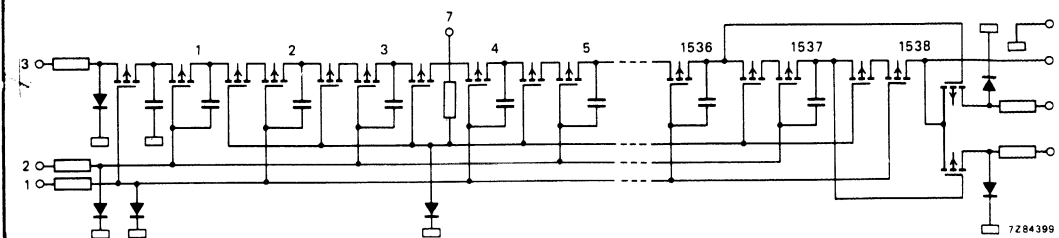
CD452

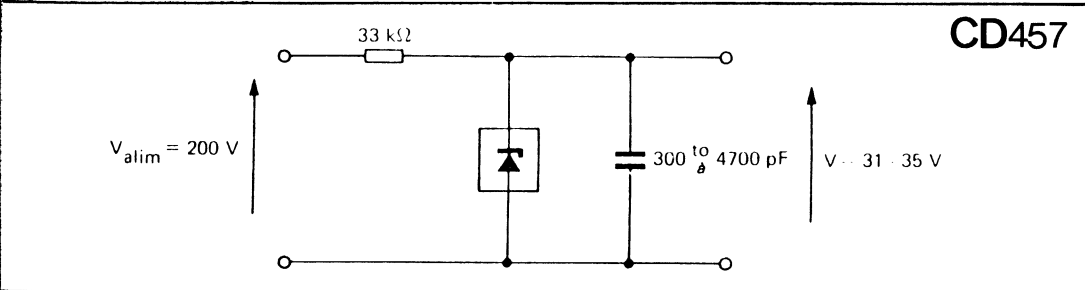
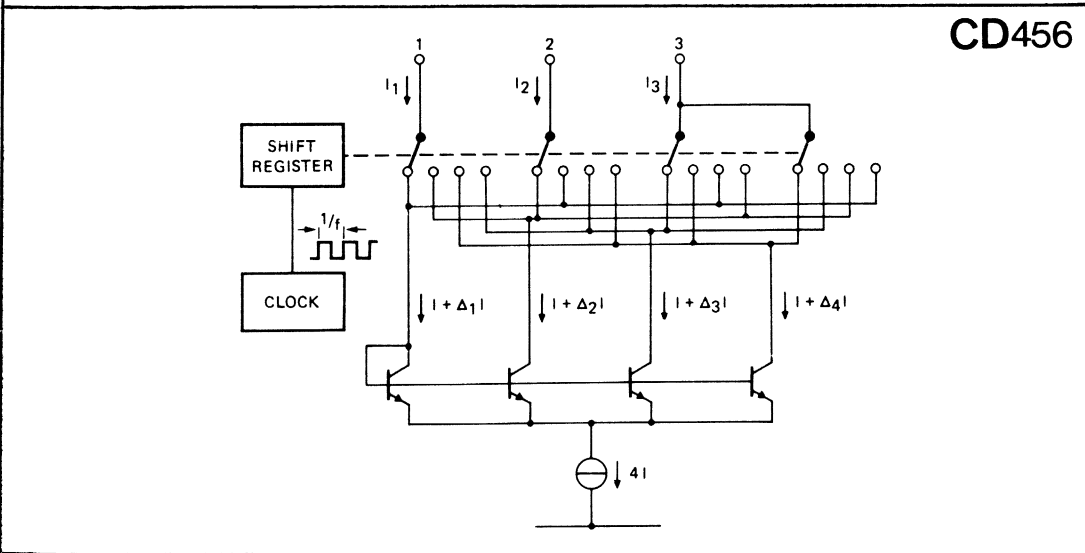
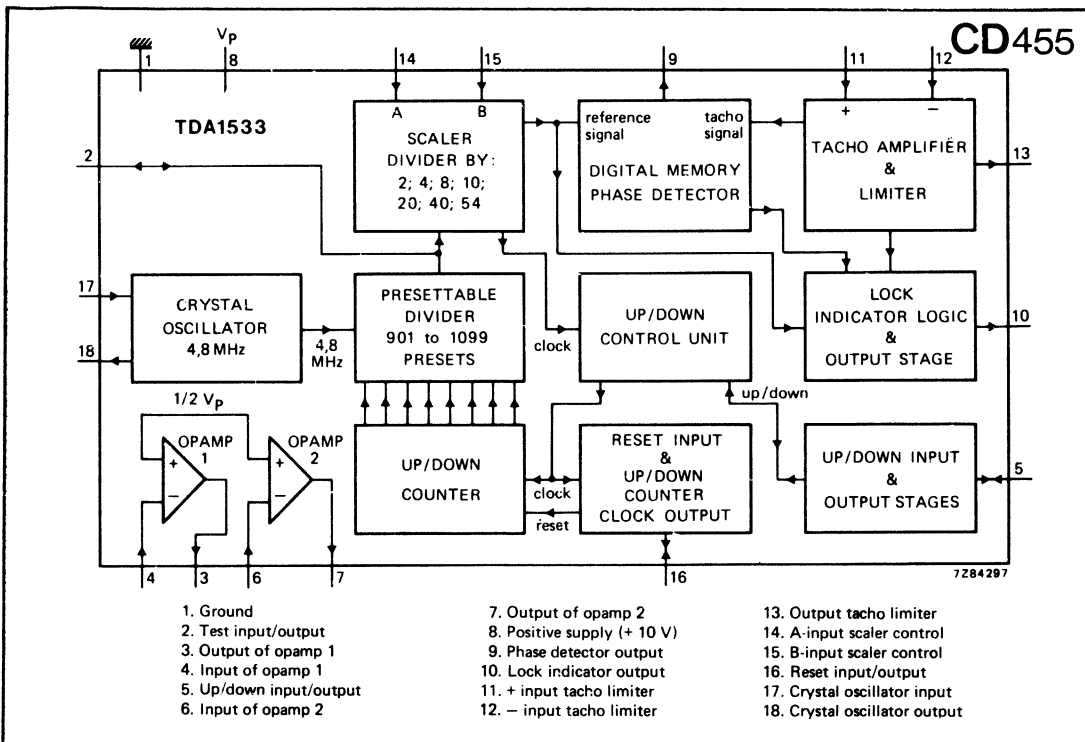


CD453

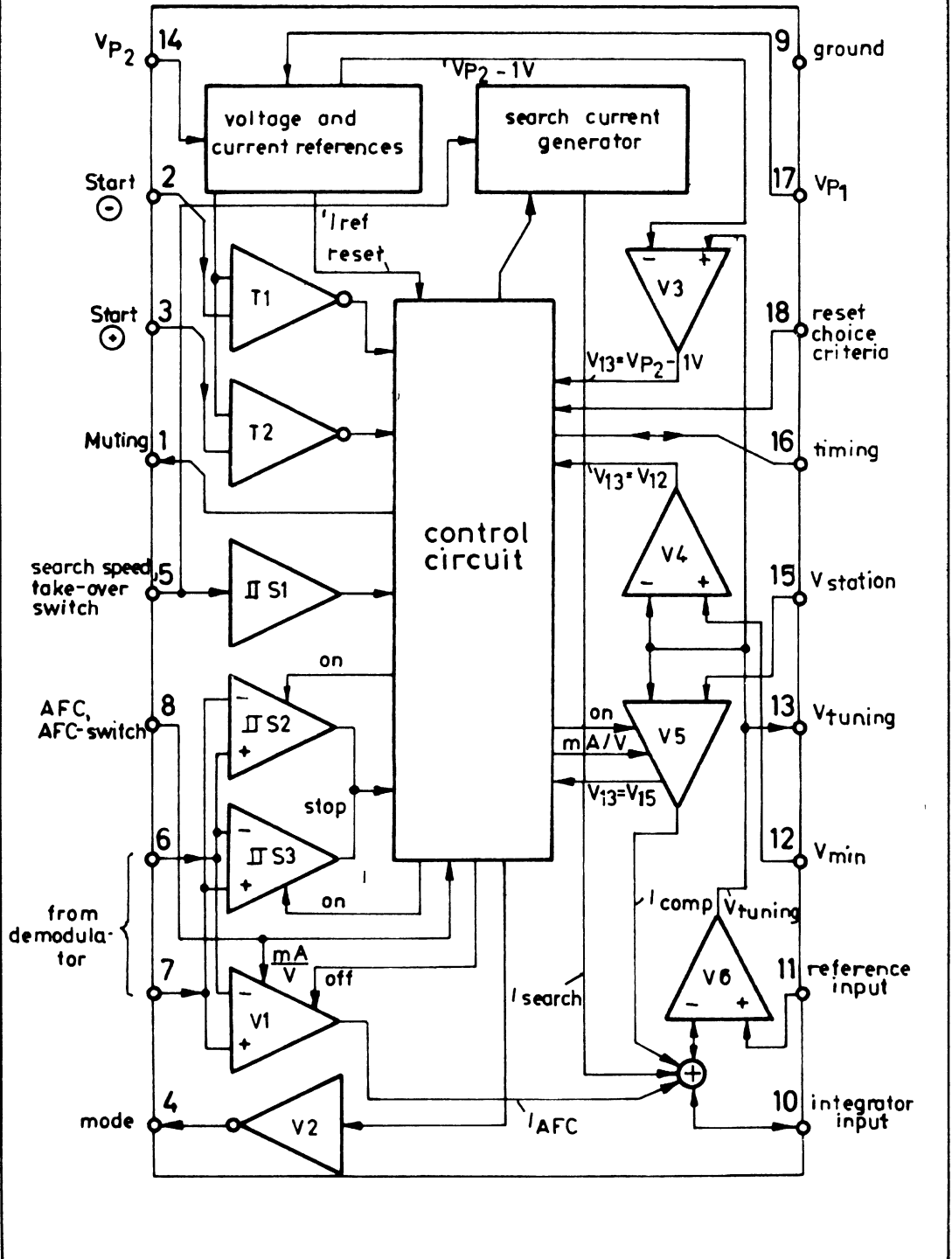


CD454

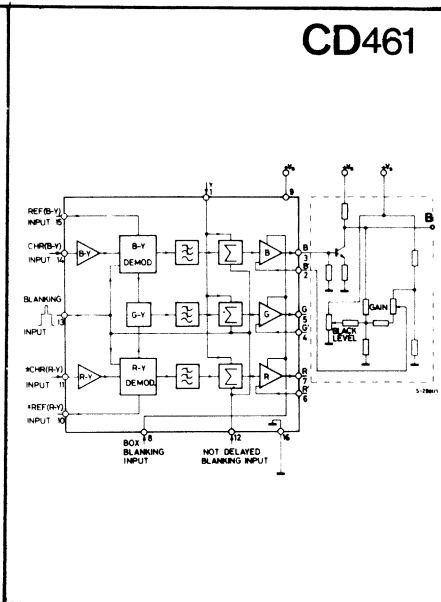
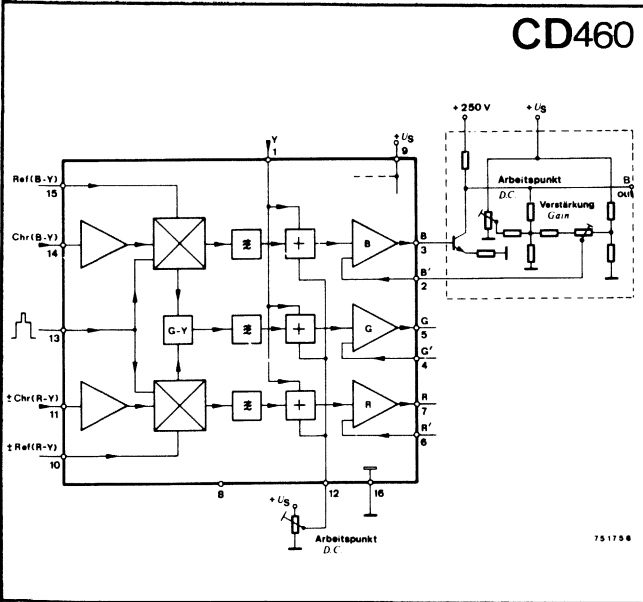
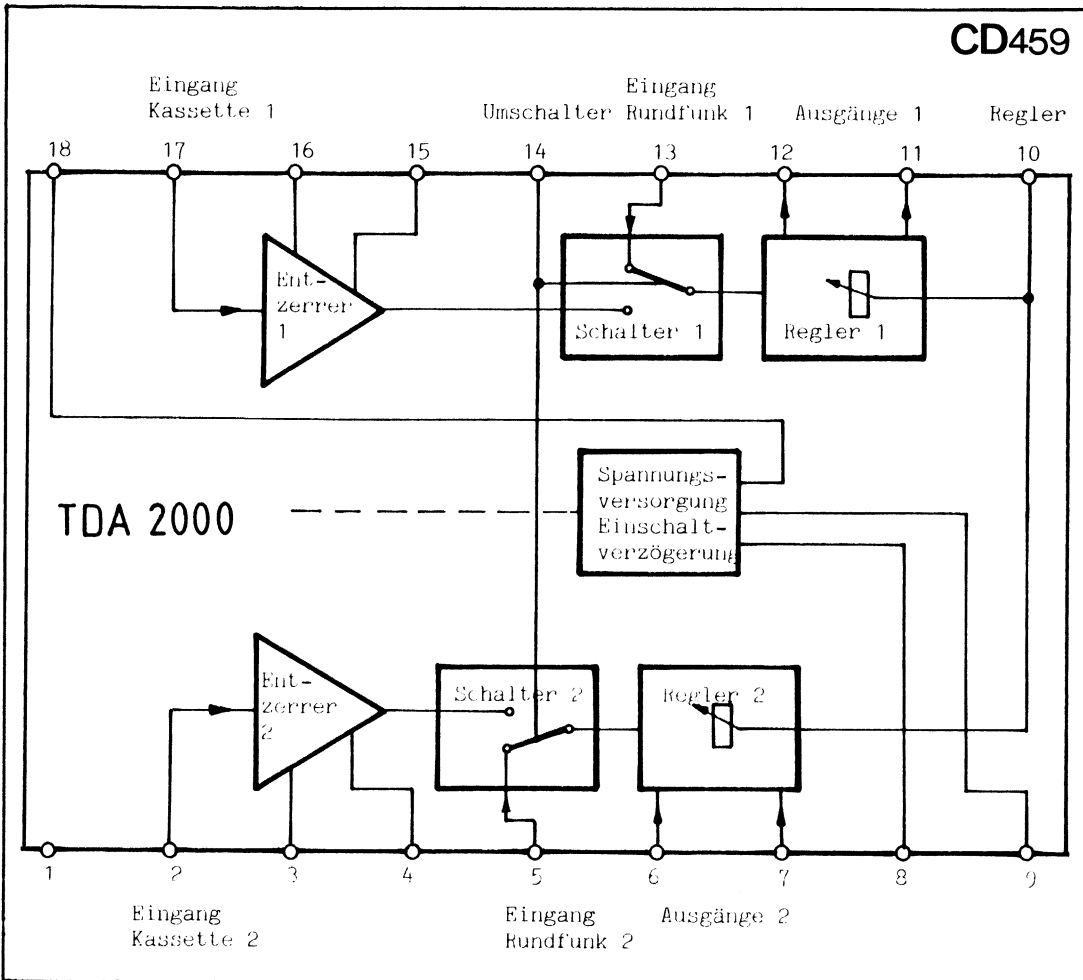




CD458

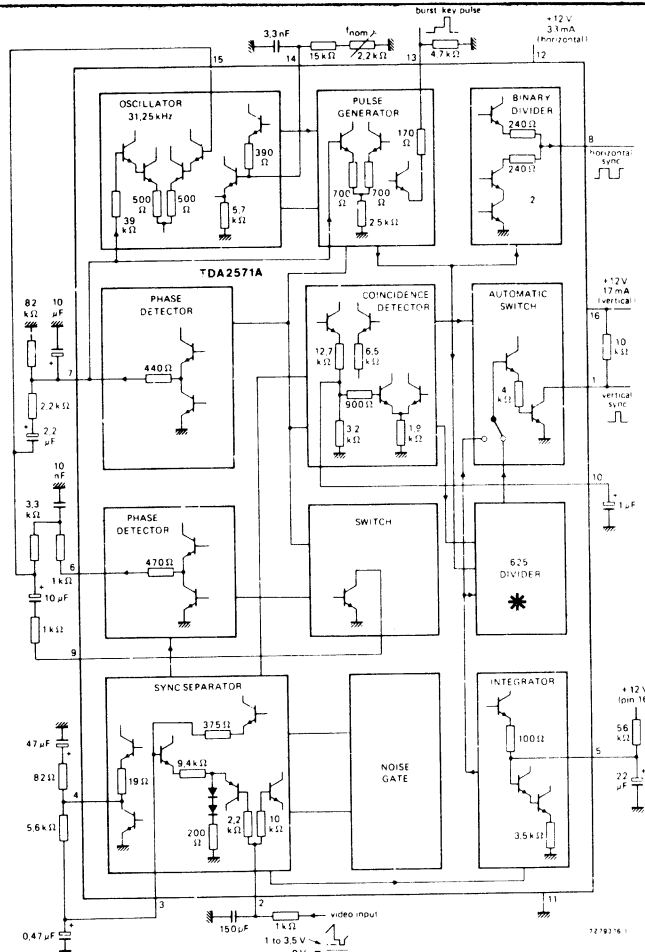


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBILDER



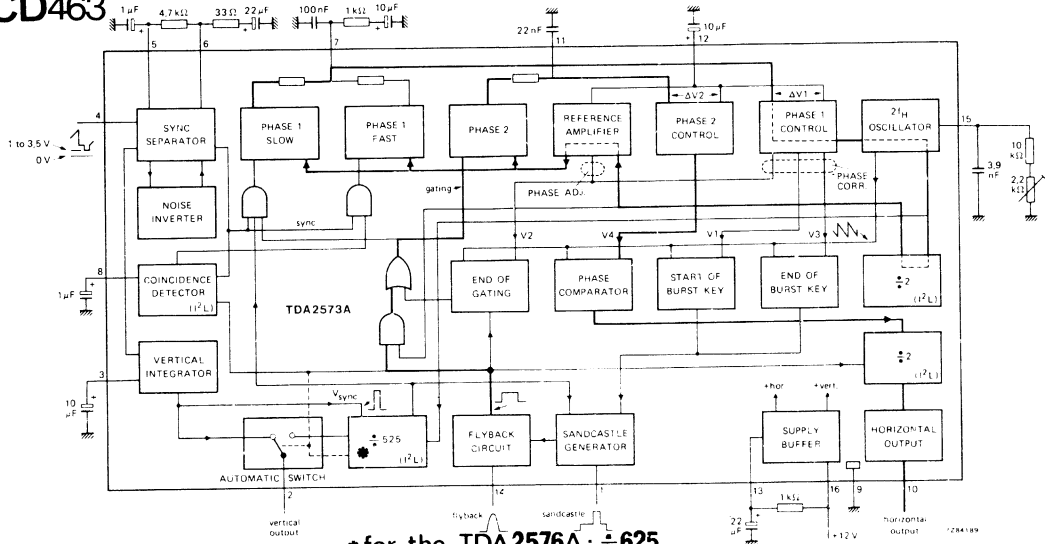
CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder

CD462



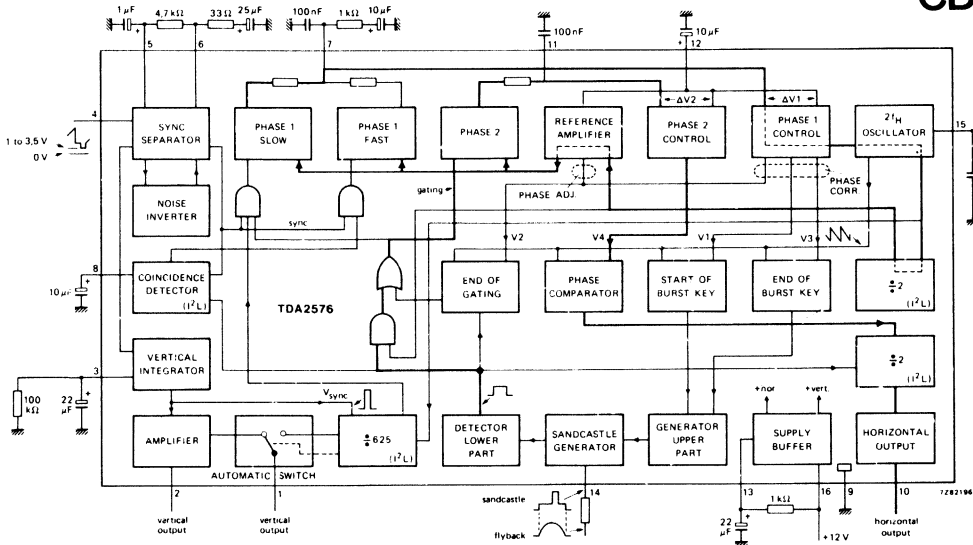
* for the TDA2575 A/AQ : 525 DIVIDER

CD463

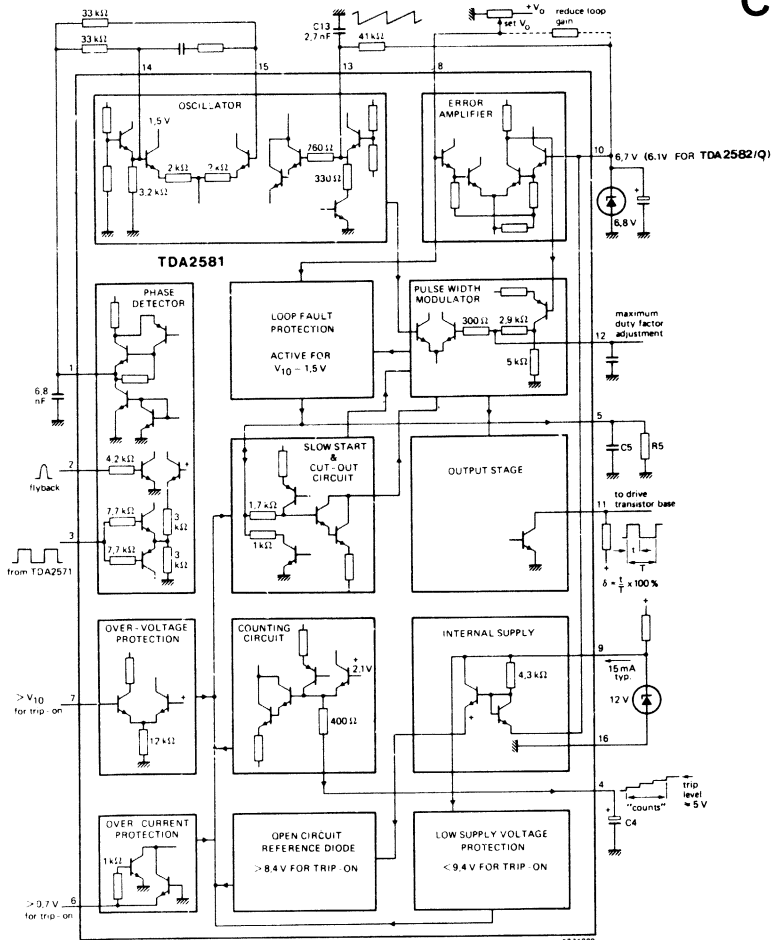


* for the TDA2576A : 625

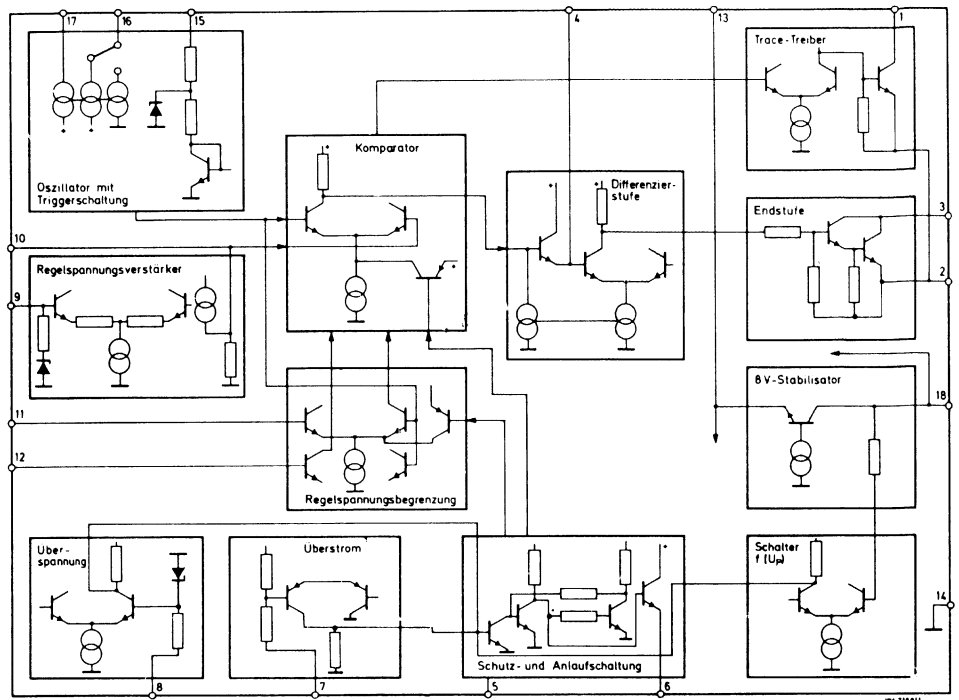
CD464



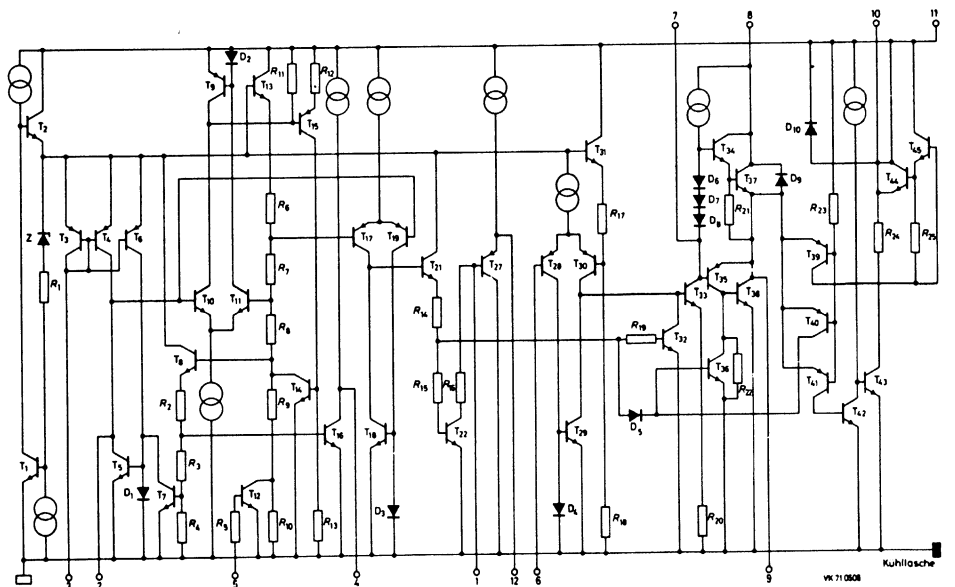
CD465



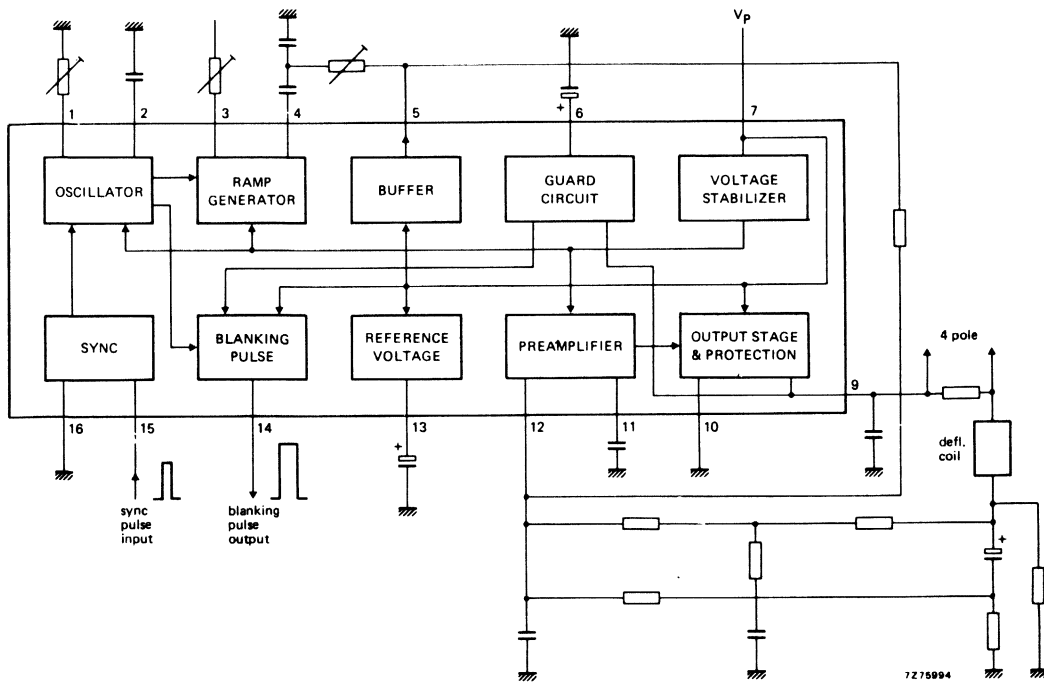
CD466



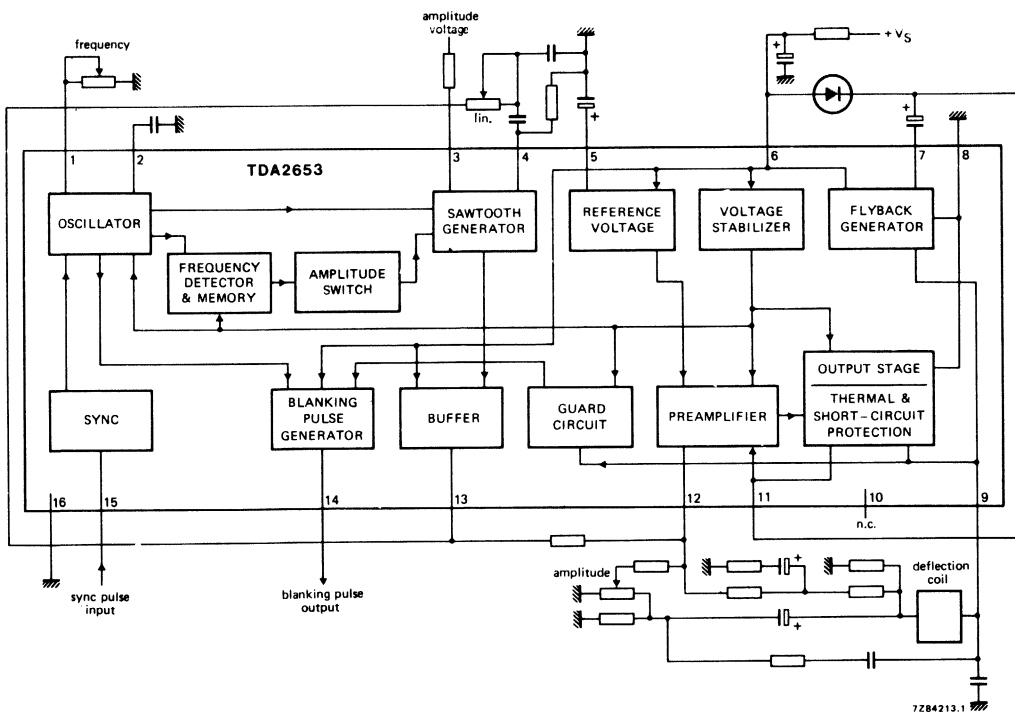
CD467



CD468

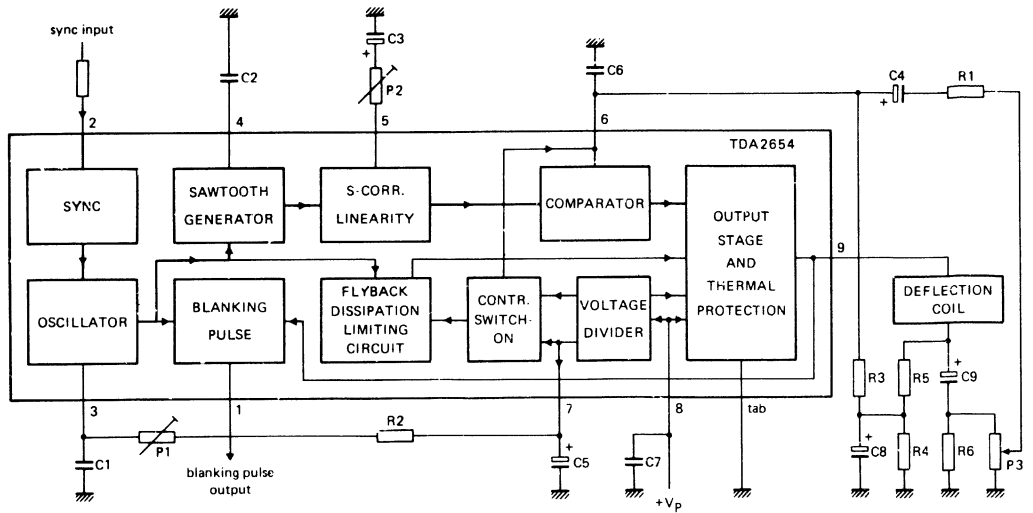


CD469

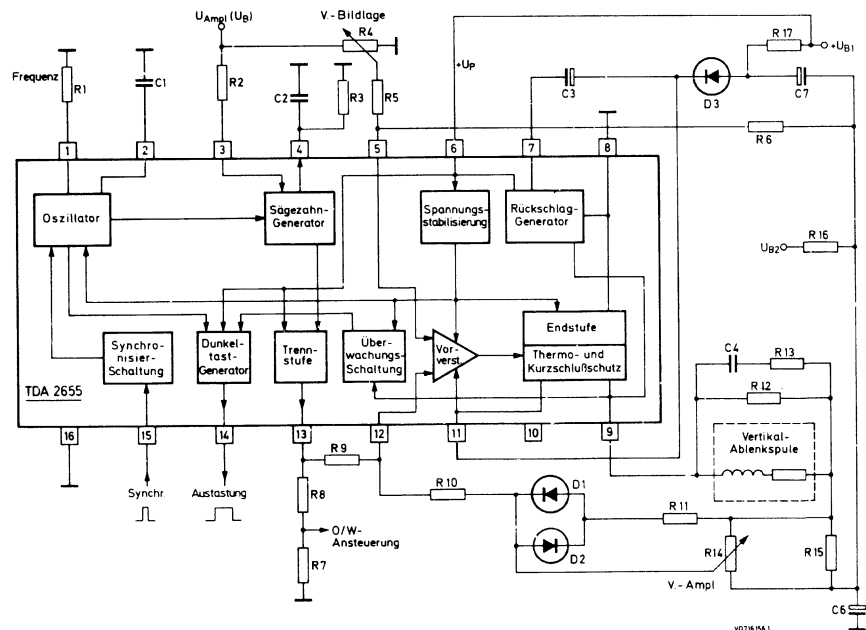


CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBILDER

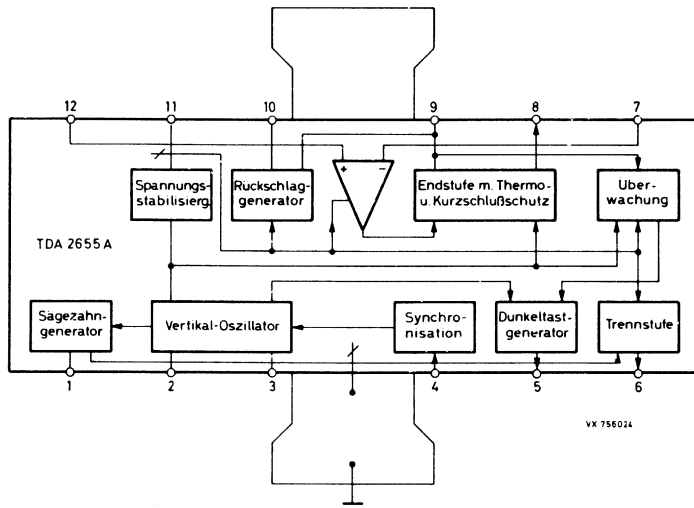
CD470



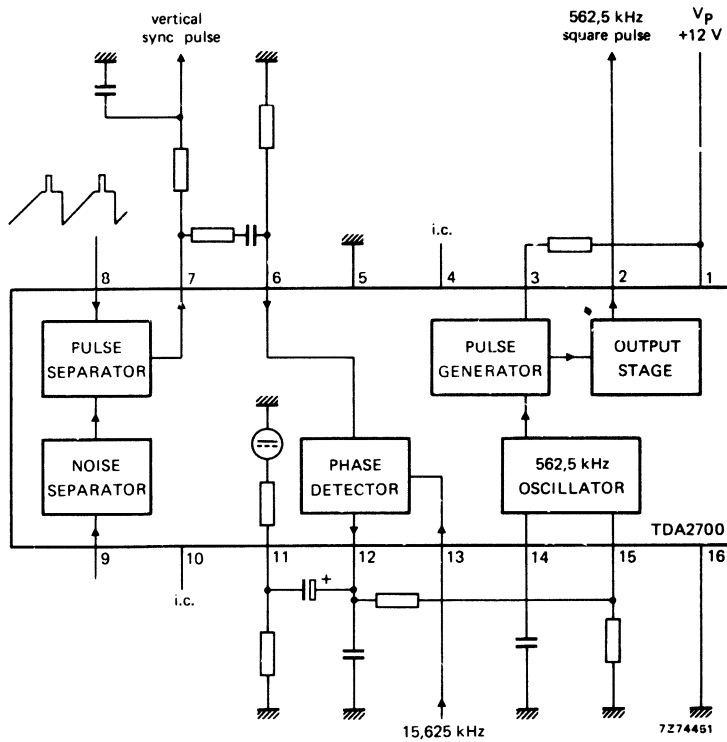
CD471



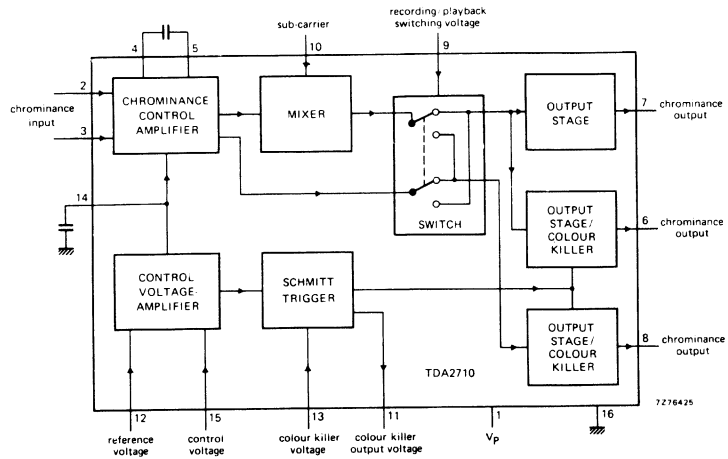
CD472



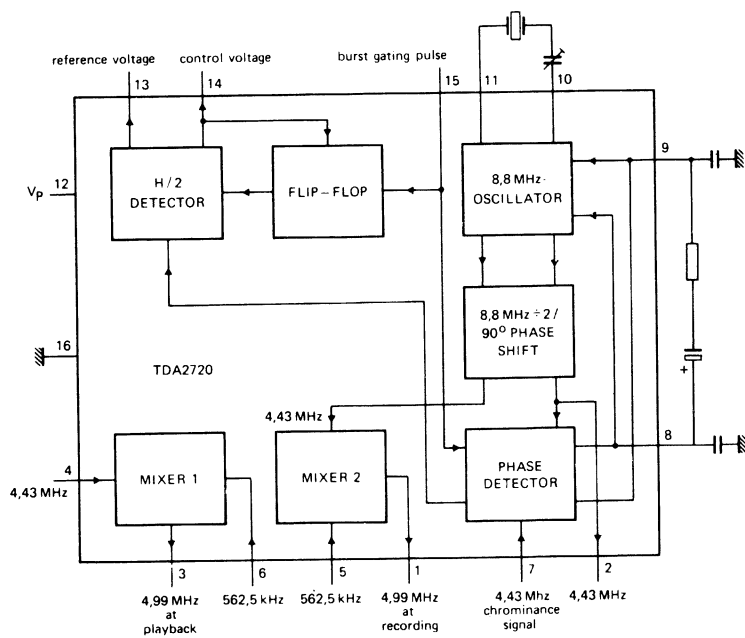
CD473



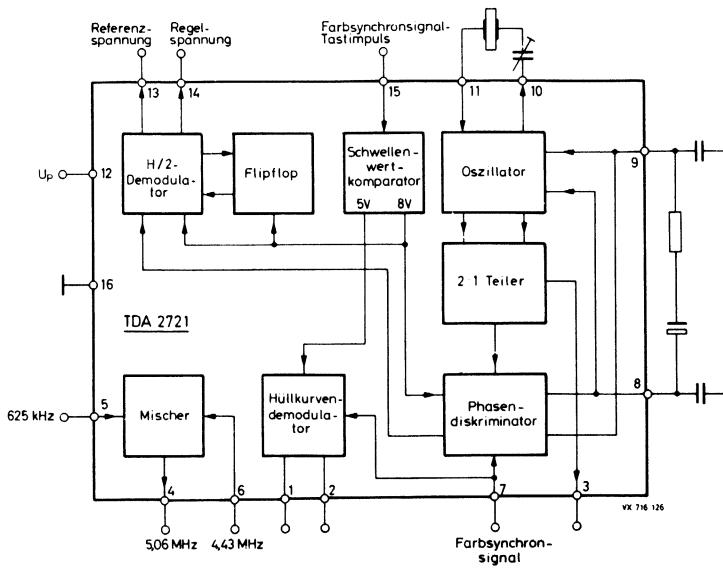
CD474



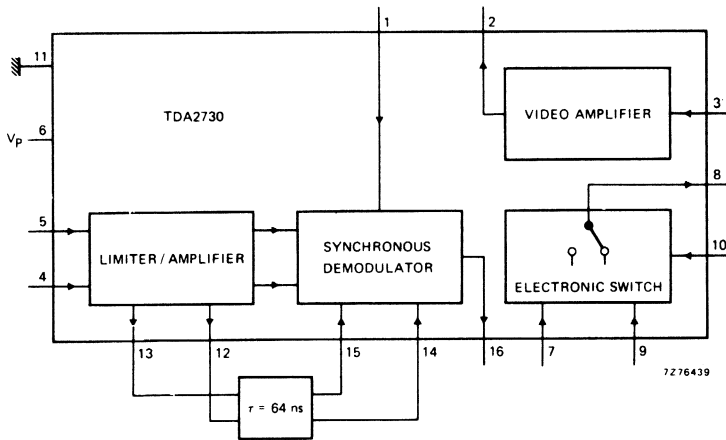
CD475



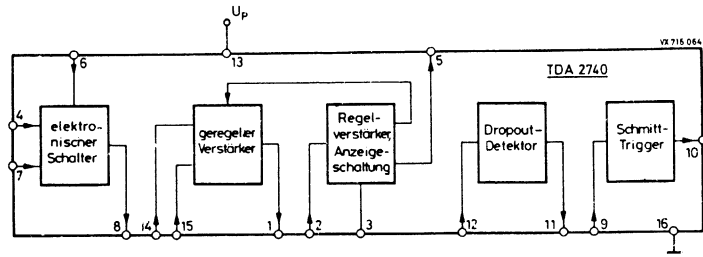
CD476



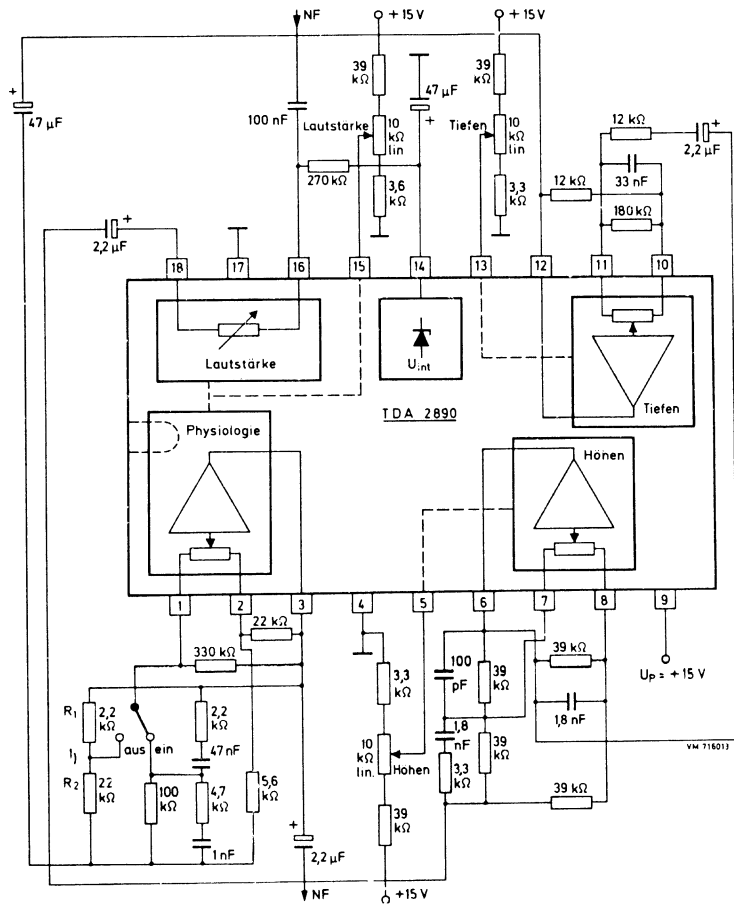
CD477



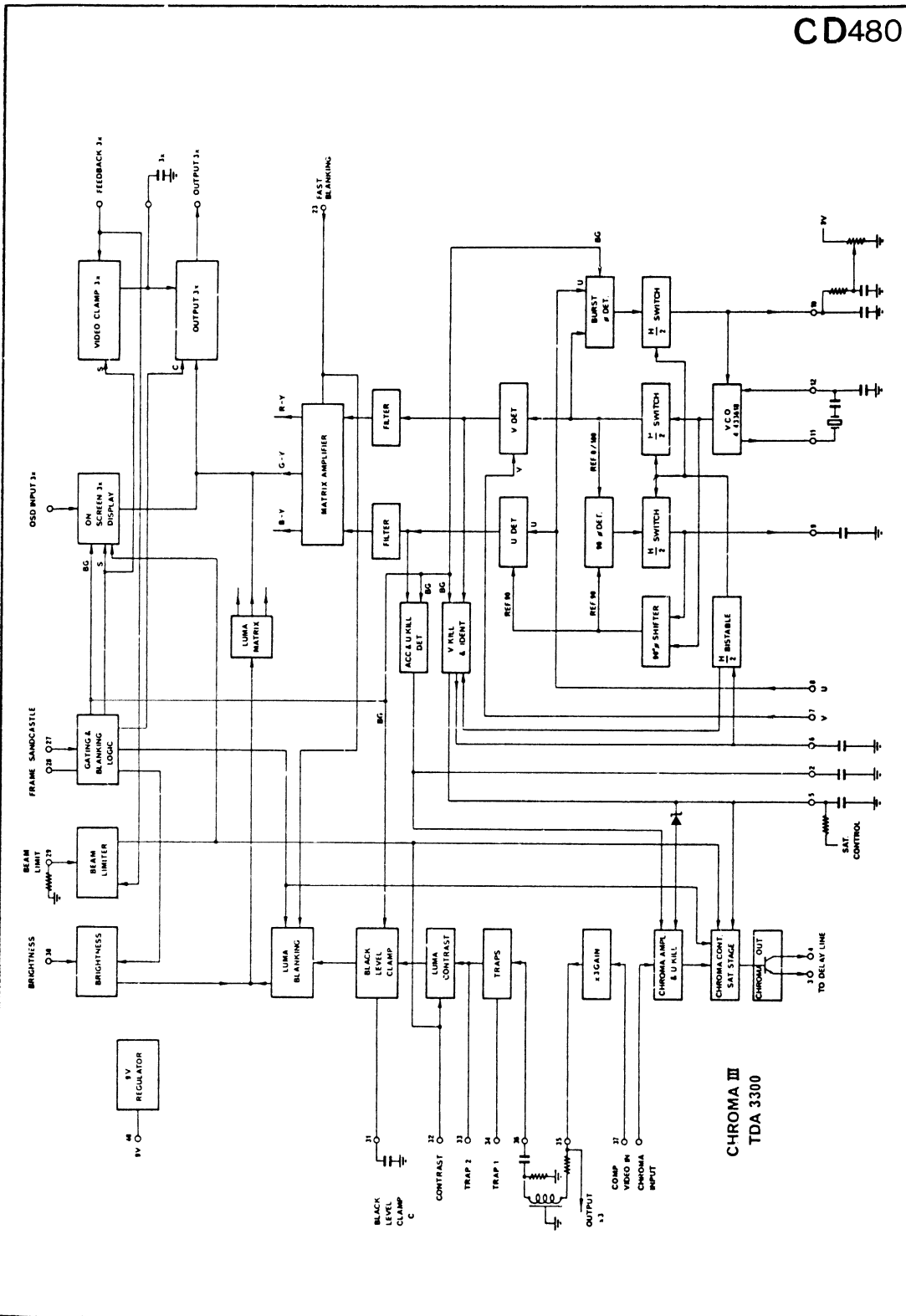
CD478



CD479

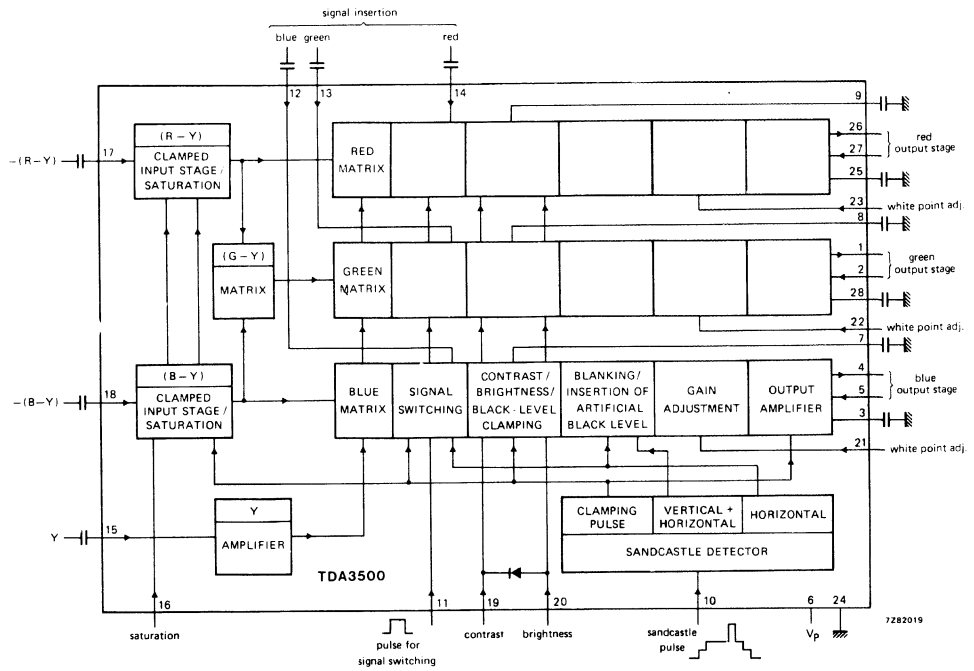


CD480

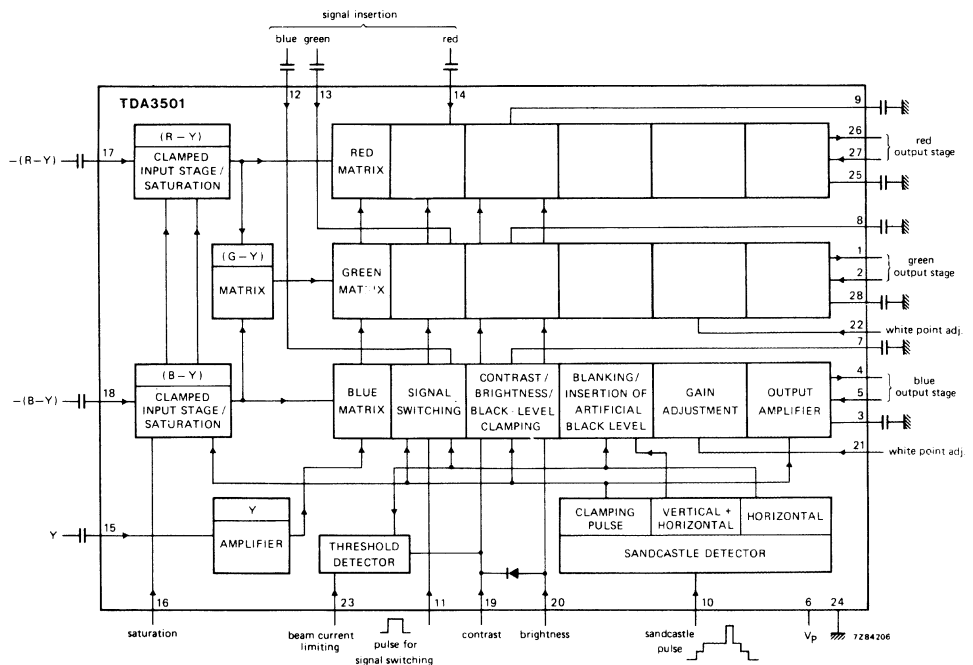


CHROMA III
TDA 3300

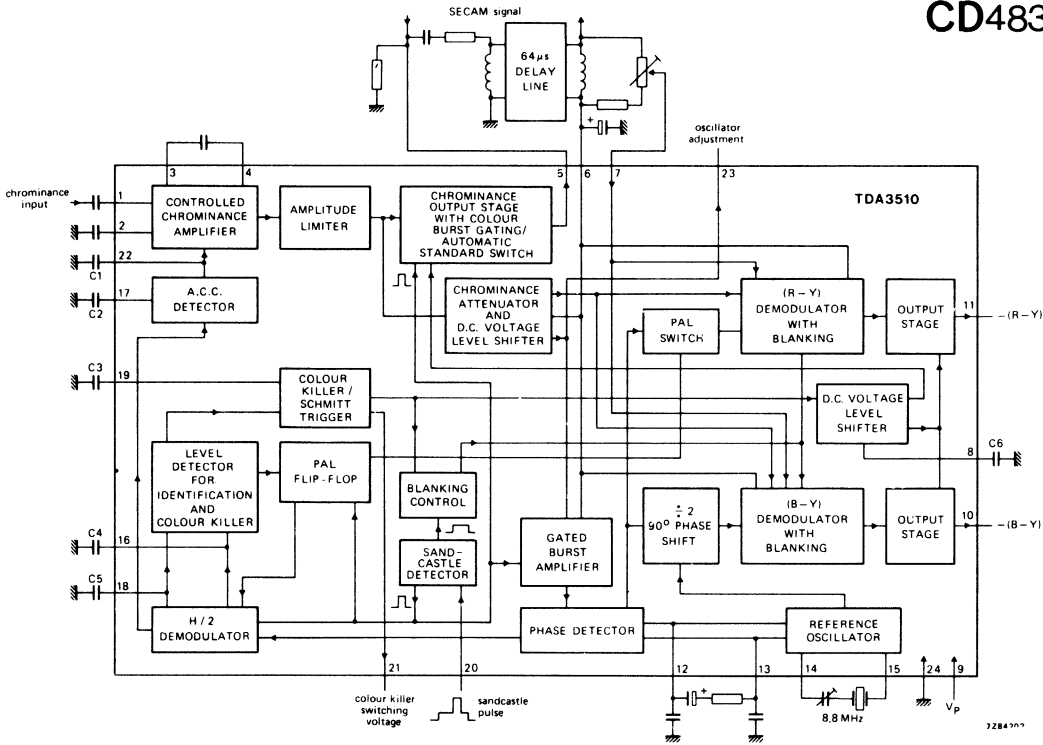
CD481



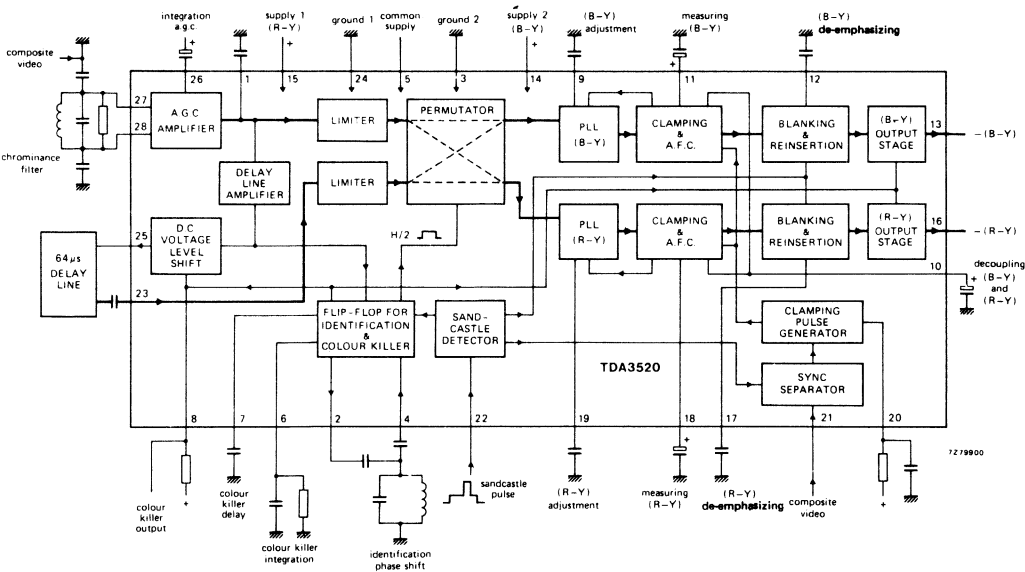
CD482



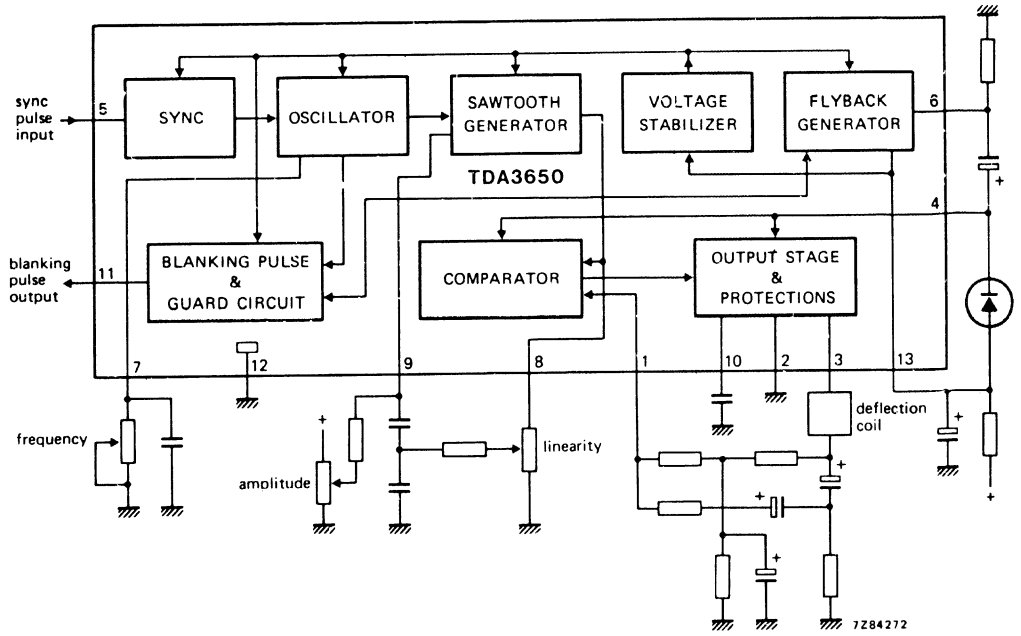
CD483



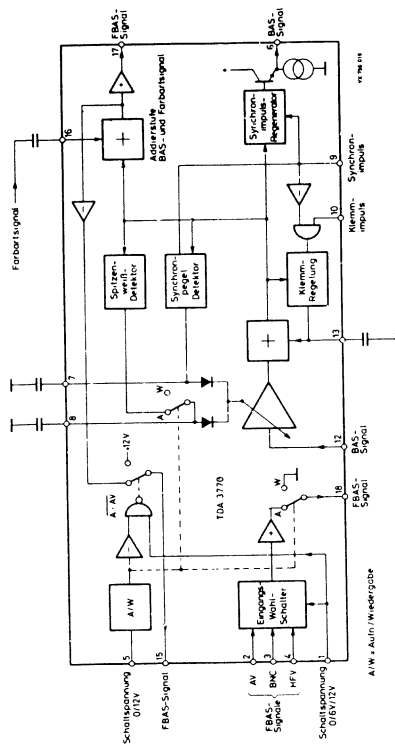
CD484



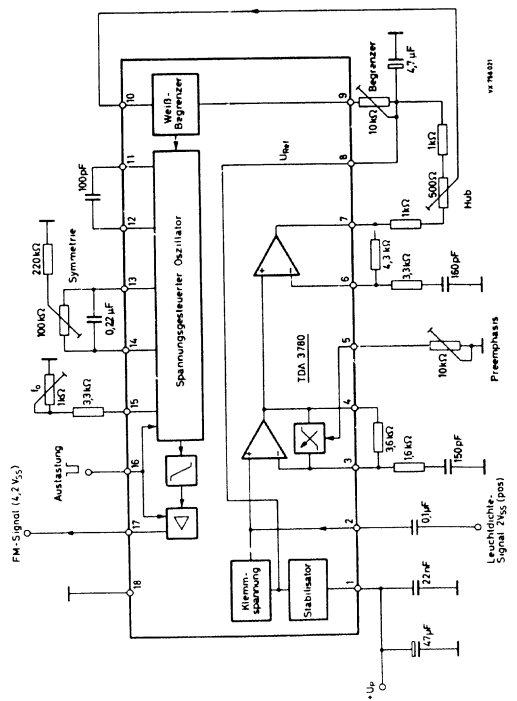
CD485



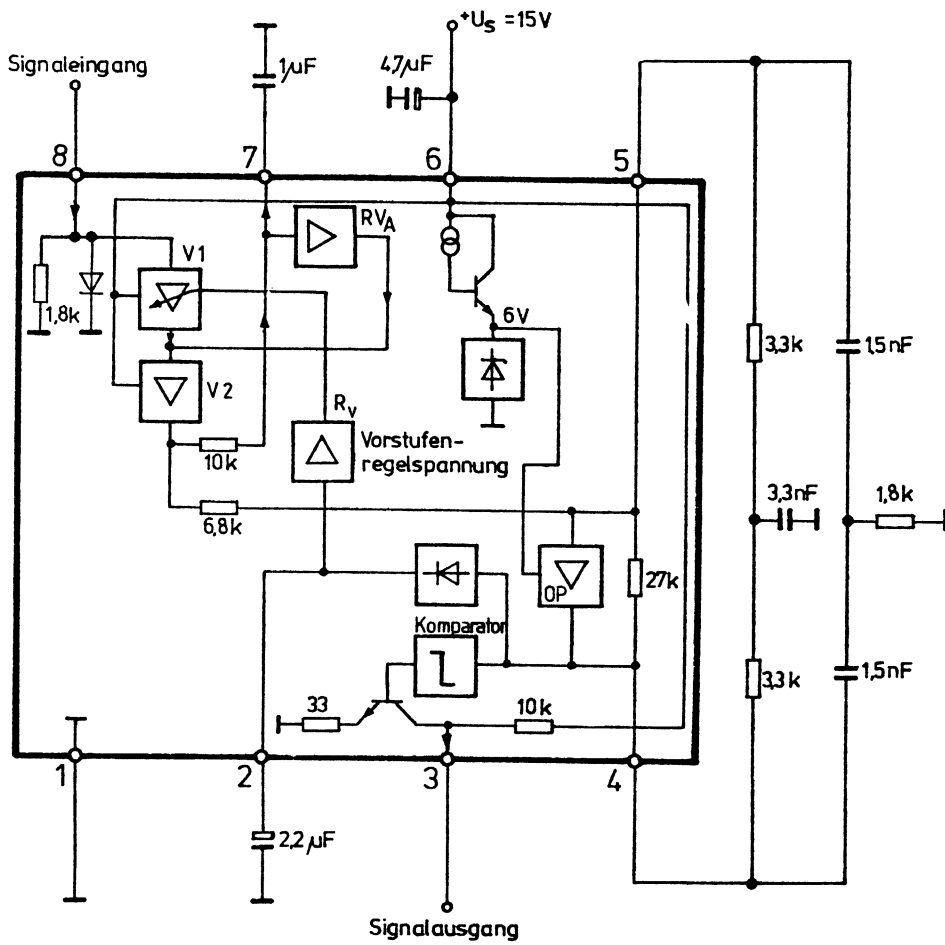
CD486



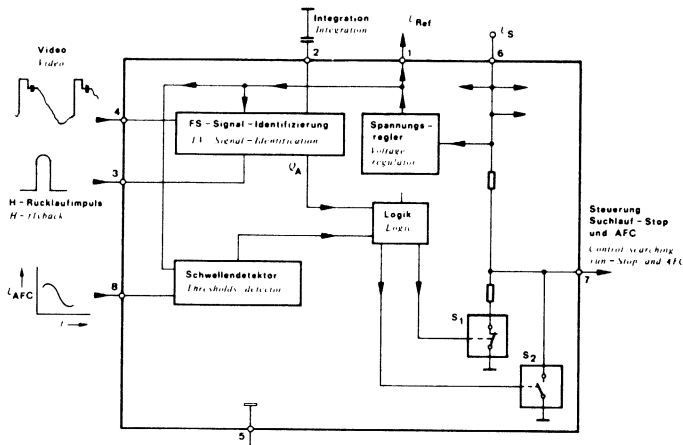
CD487



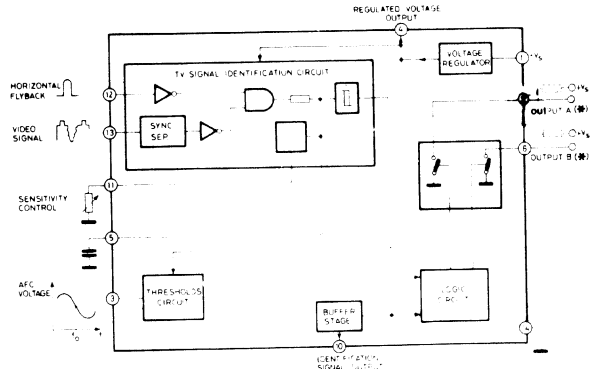
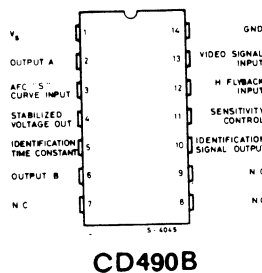
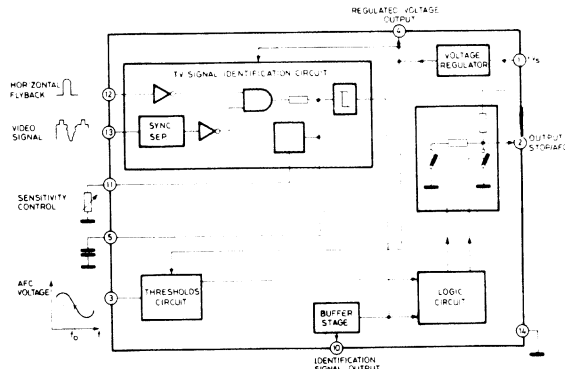
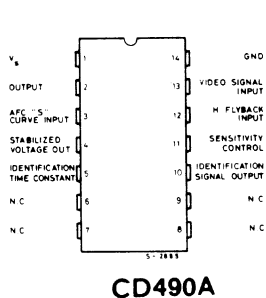
CD488



CD489

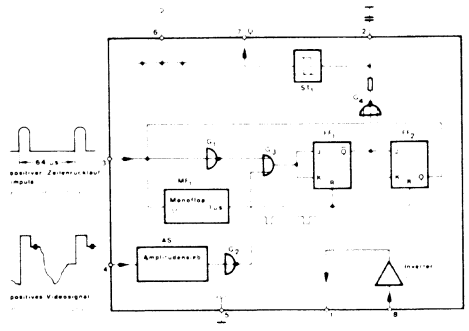


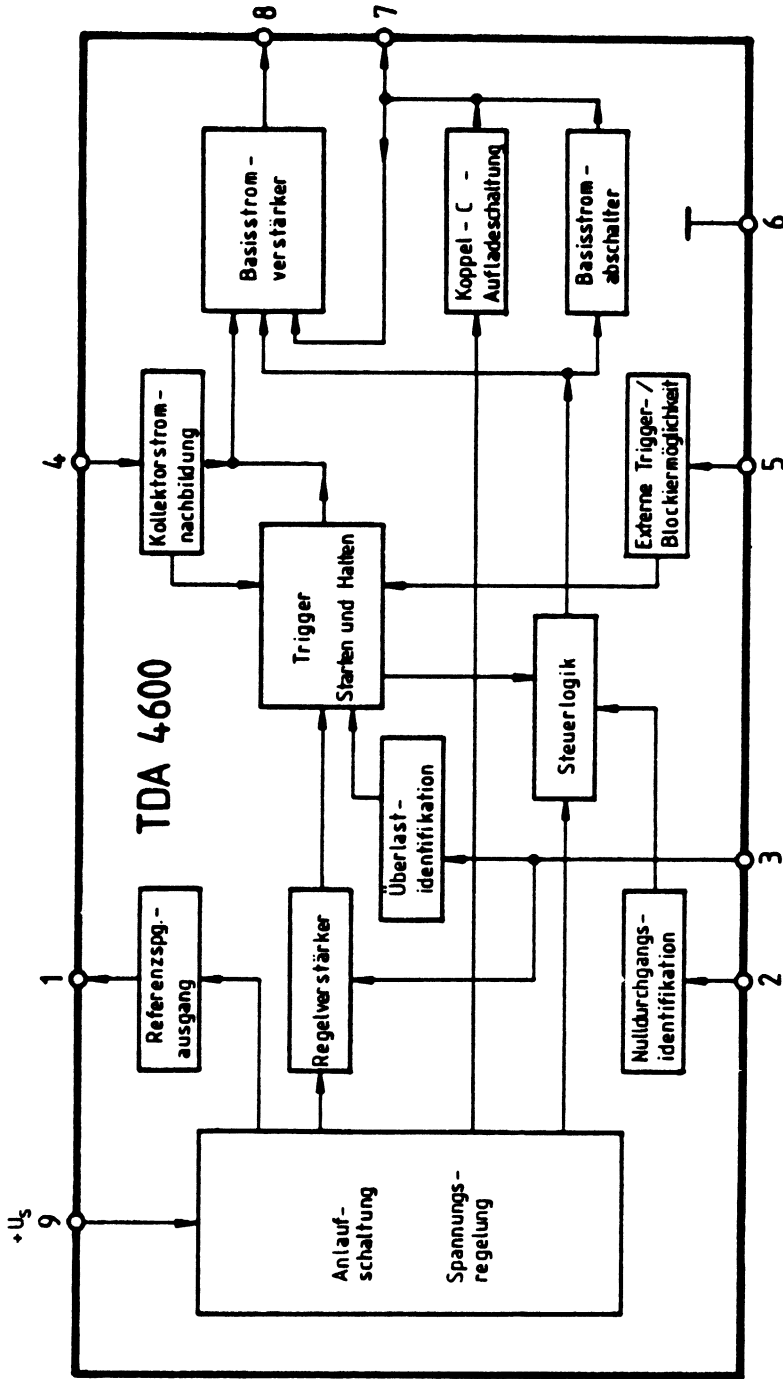
CD490A/B



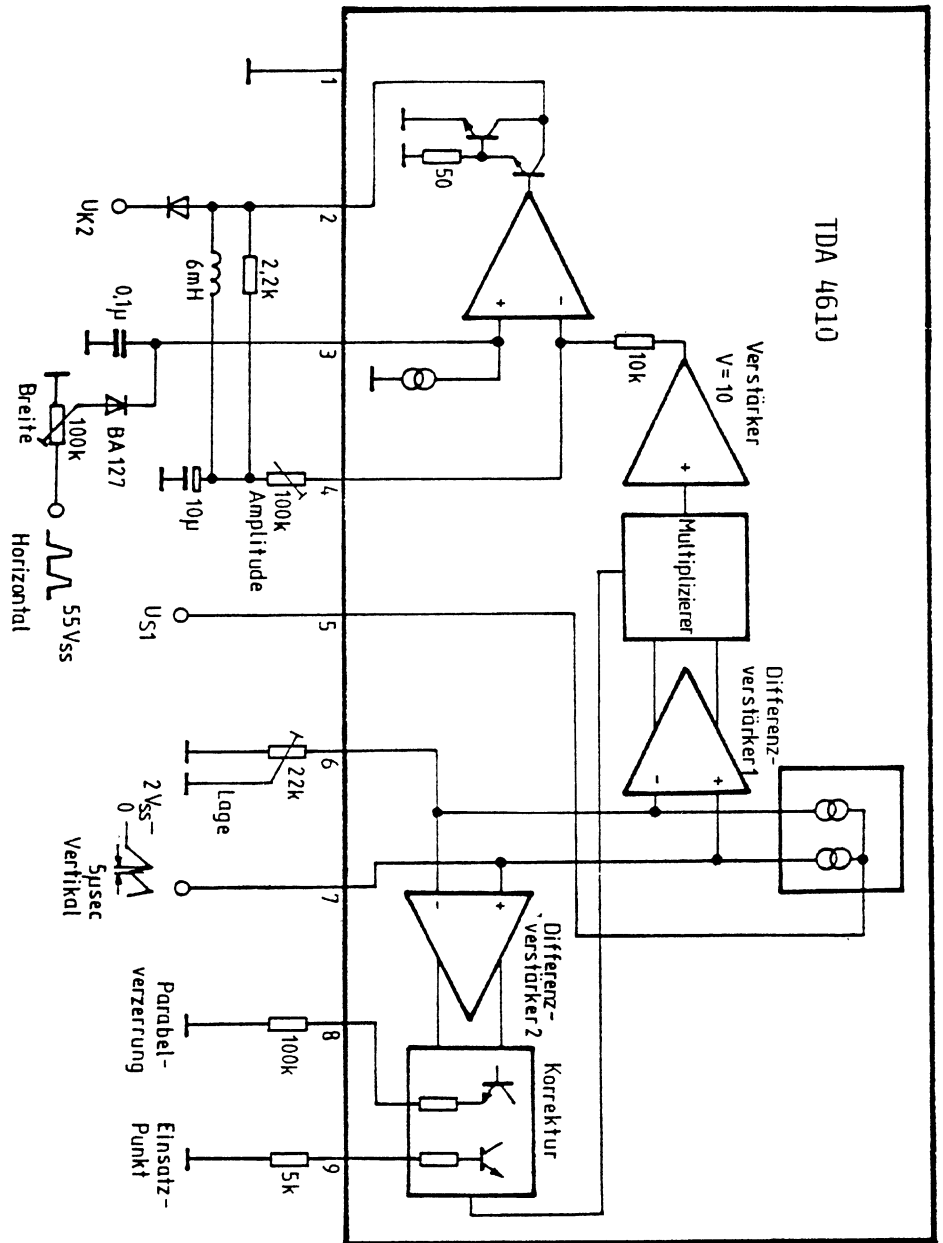
* Open collector outputs

CD491

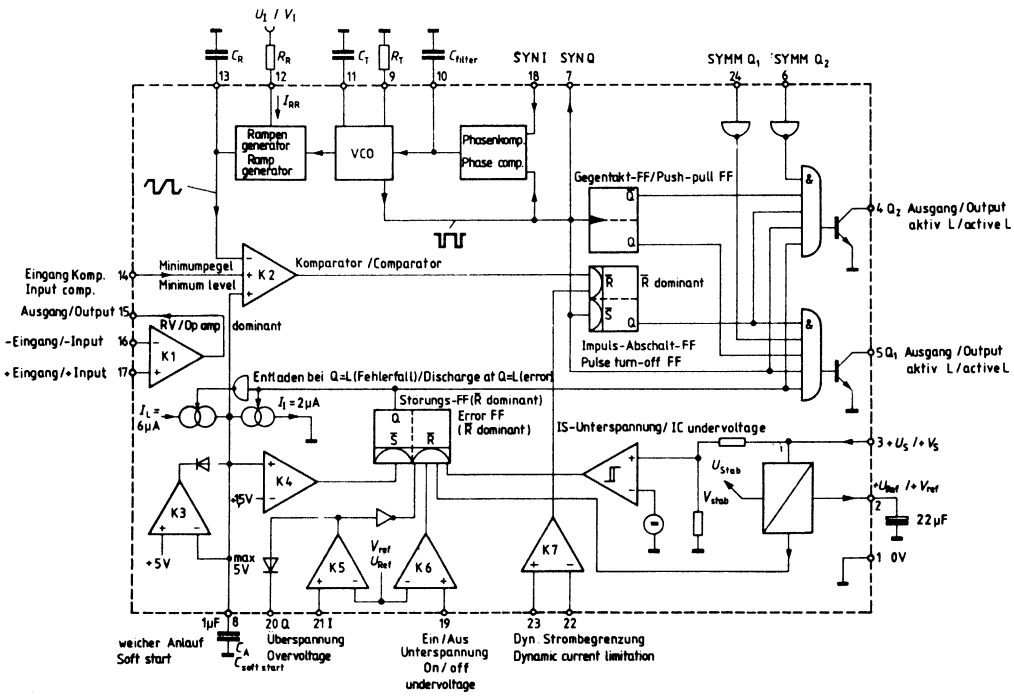




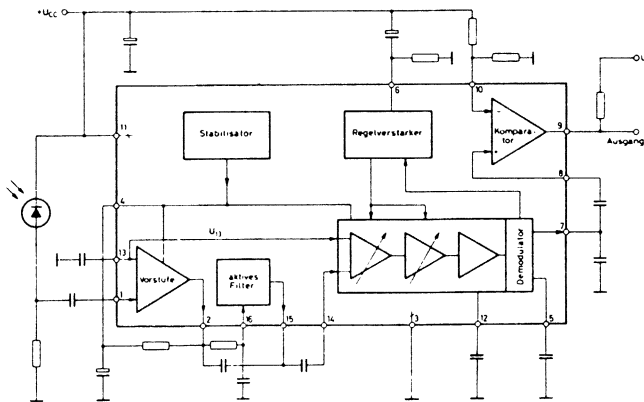
CD493



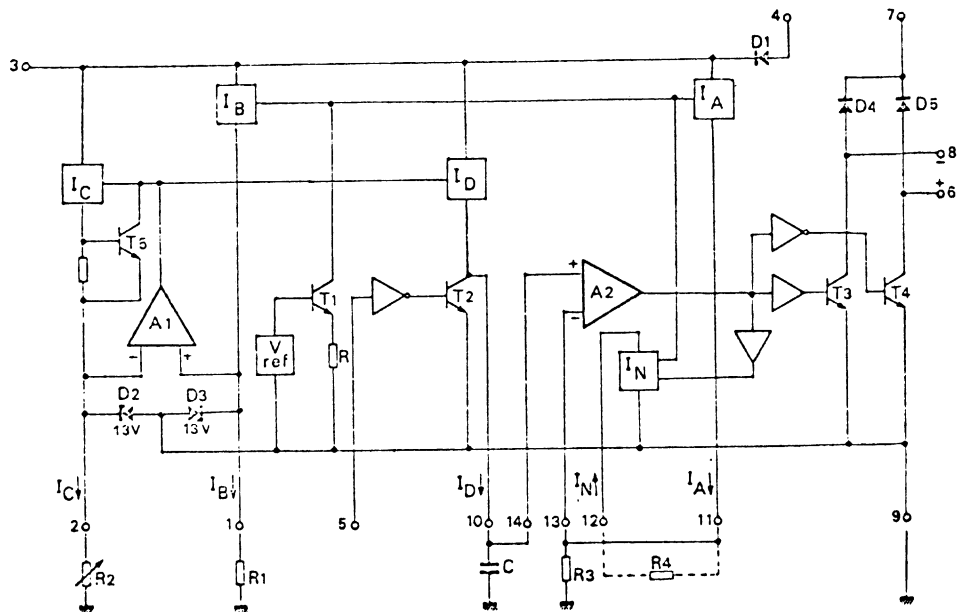
CD494



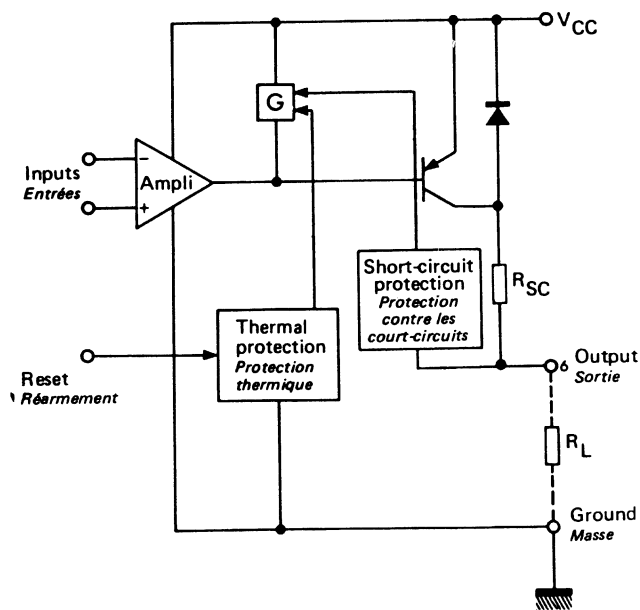
CD495



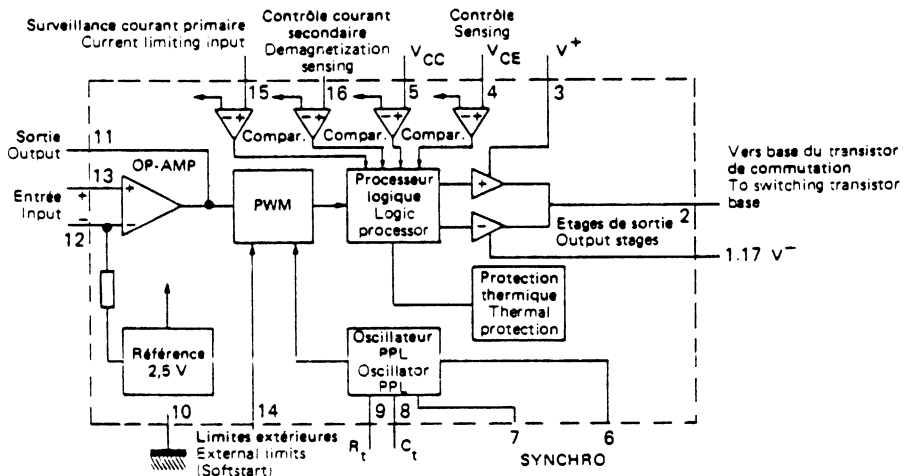
CD496



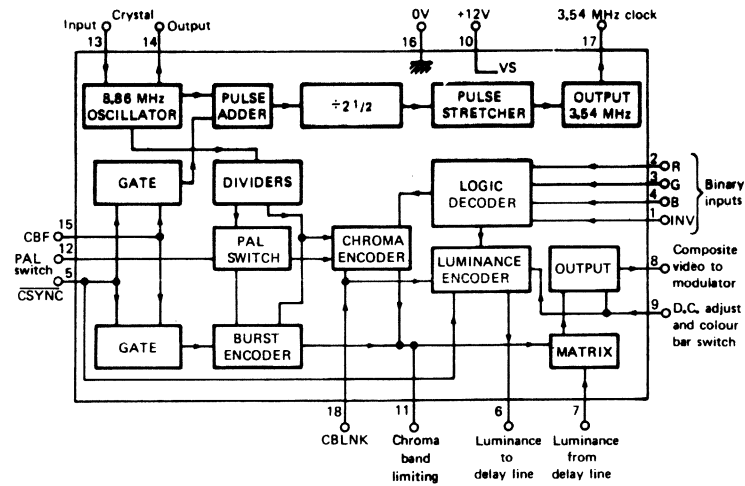
CD497



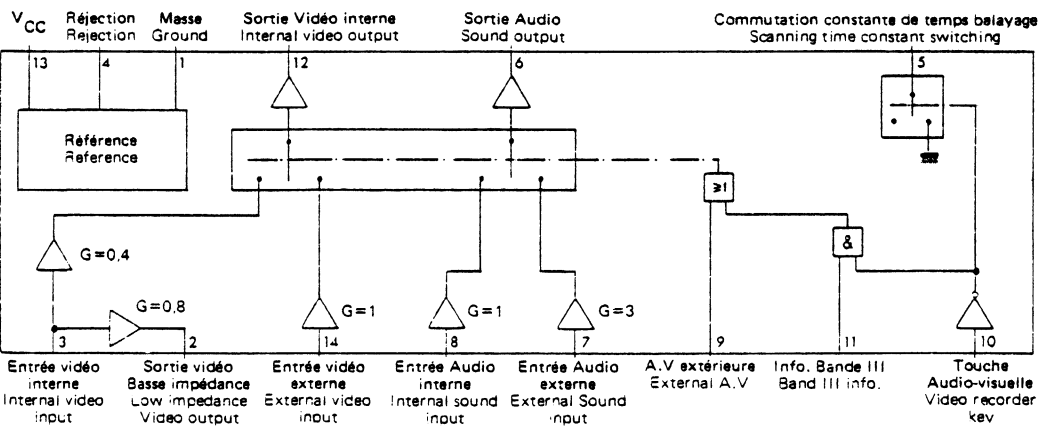
CD498



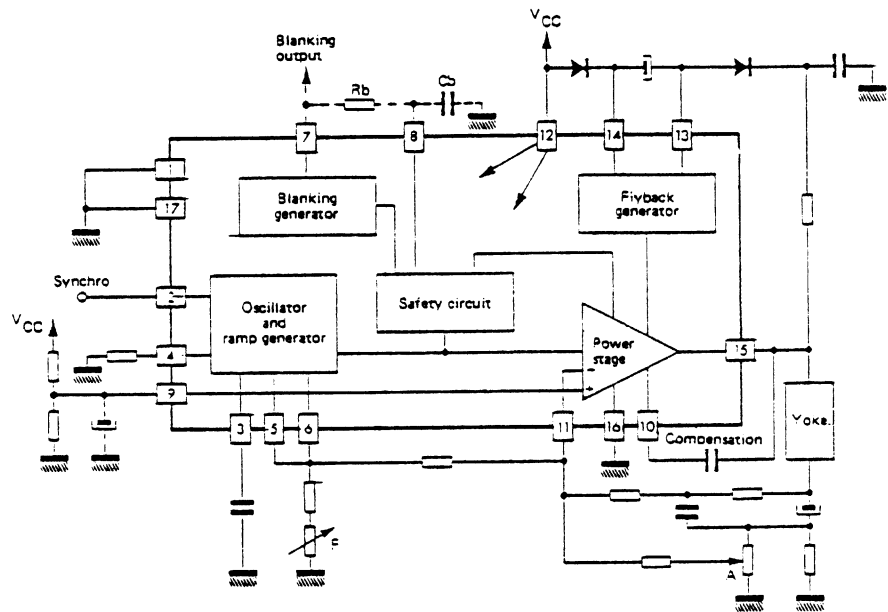
CD499



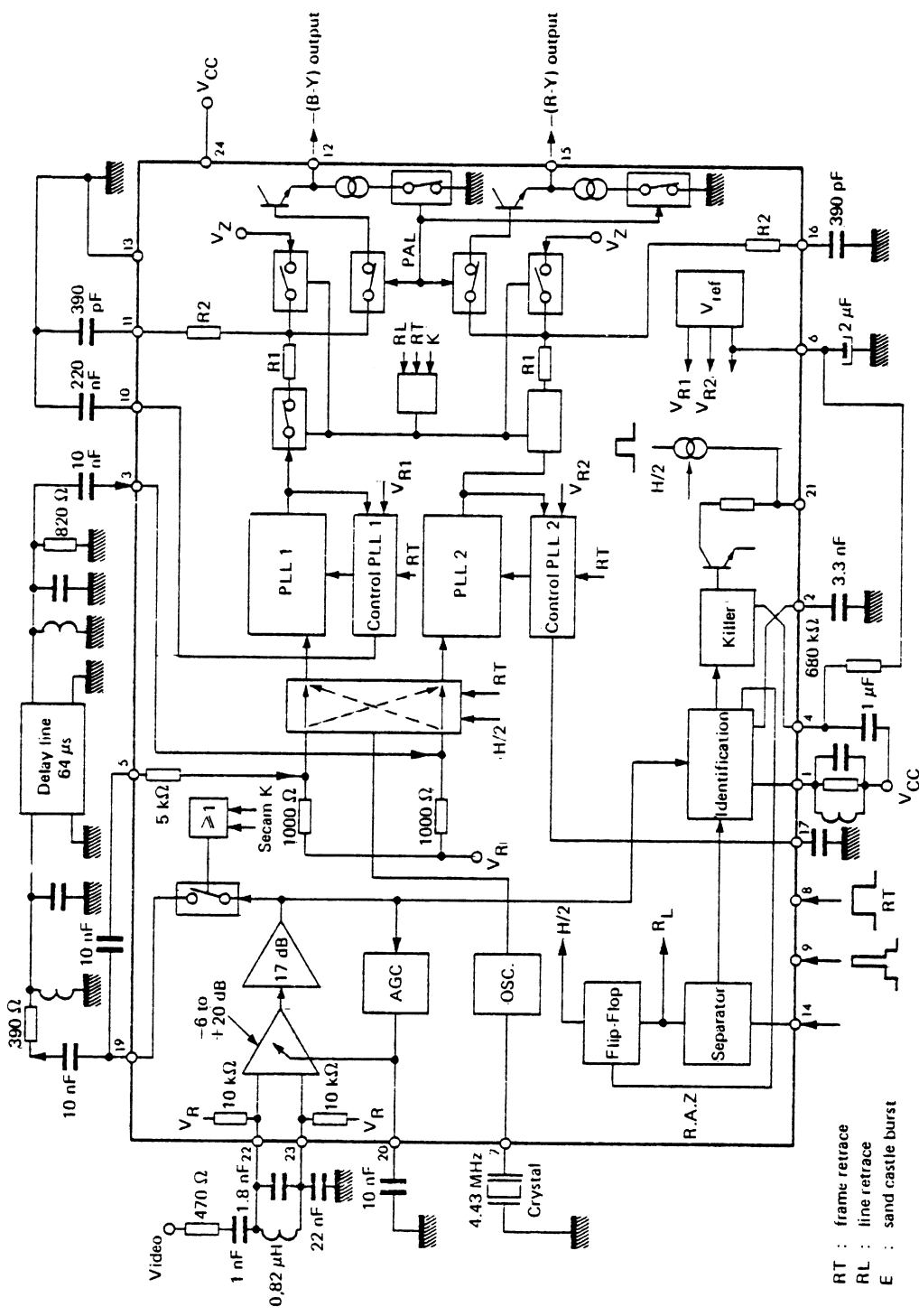
CD500



CD501

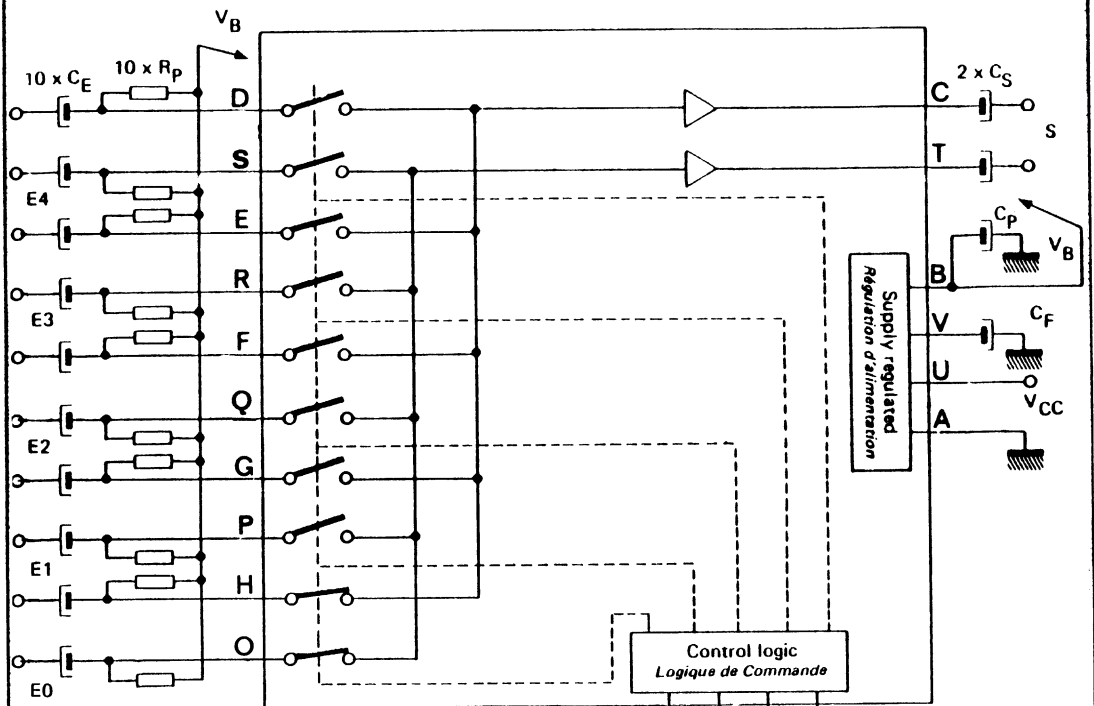


CD502



RT : frame retrace
 RL : line retrace
 E : sand castle burst

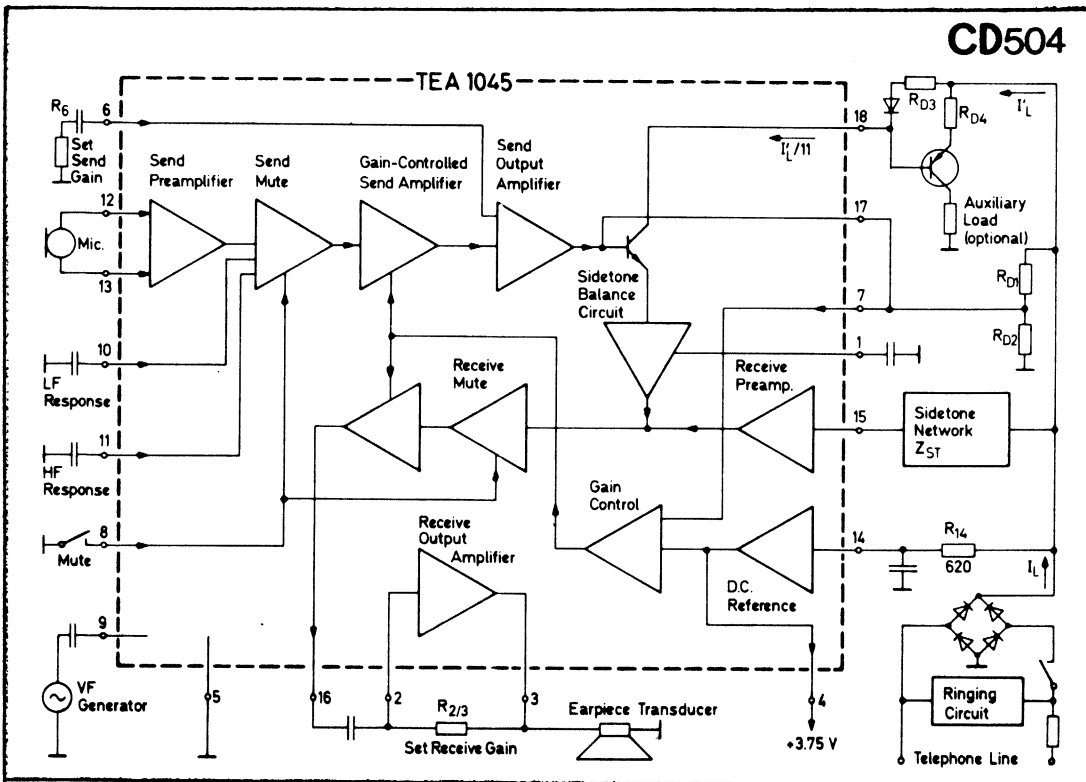
CD503A/B/C



	CD503A DP24	CD503B DP18	CD503C DP14
A	1	1	1
B	2	2	2
C	3	3	3
D	5	4	6
E	6	5	5
F	7	6	4
G	8	7	-
H	9	-	-
K	11	-	-
L	12	8	-
M	13	9	7
N	14	10	8
O	15	-	-
P	16	12	-
Q	17	13	9
R	18	14	10
S	19	15	11
T	21	16	12
U	23	17	13
V	24 *	18 *	14 *

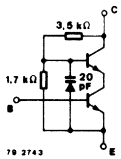
- R_P Inputs biasing resistance 47 kΩ
Résistance de polarisation des entrées
- R_C Control input biasing resistances 10 kΩ
Résistance de polarisation des entrées de commande
- C_E Input coupling capacitor 4,7 μF
Condensateur de liaison d'entrée
- C_S Output coupling capacitor 22 μF
Condensateur de liaison de sortie
- C_P Bias filter capacitor 100 μF
Condensateur de filtrage de la polarisation
- C_F Supply voltage filter capacitor 0 μF or/ou 1 μF
Condensateur de filtrage de l'alimentation

*missing pin numbers correspond to the not connected pins

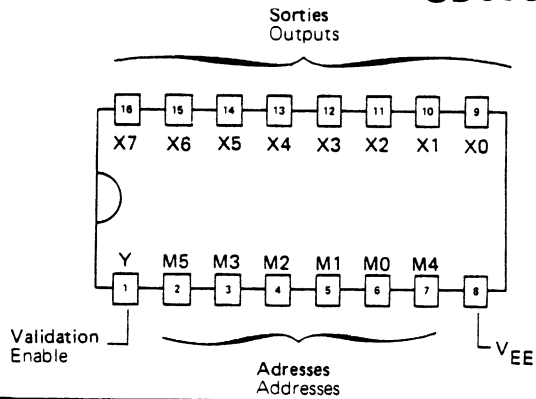


CD505

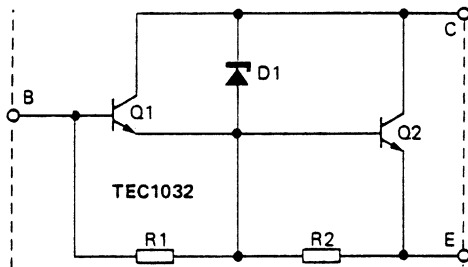
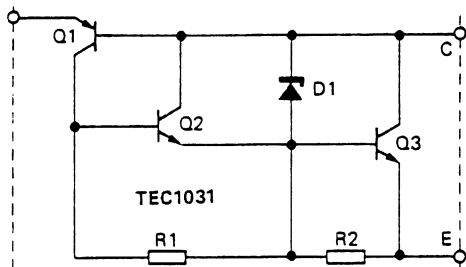
CD506



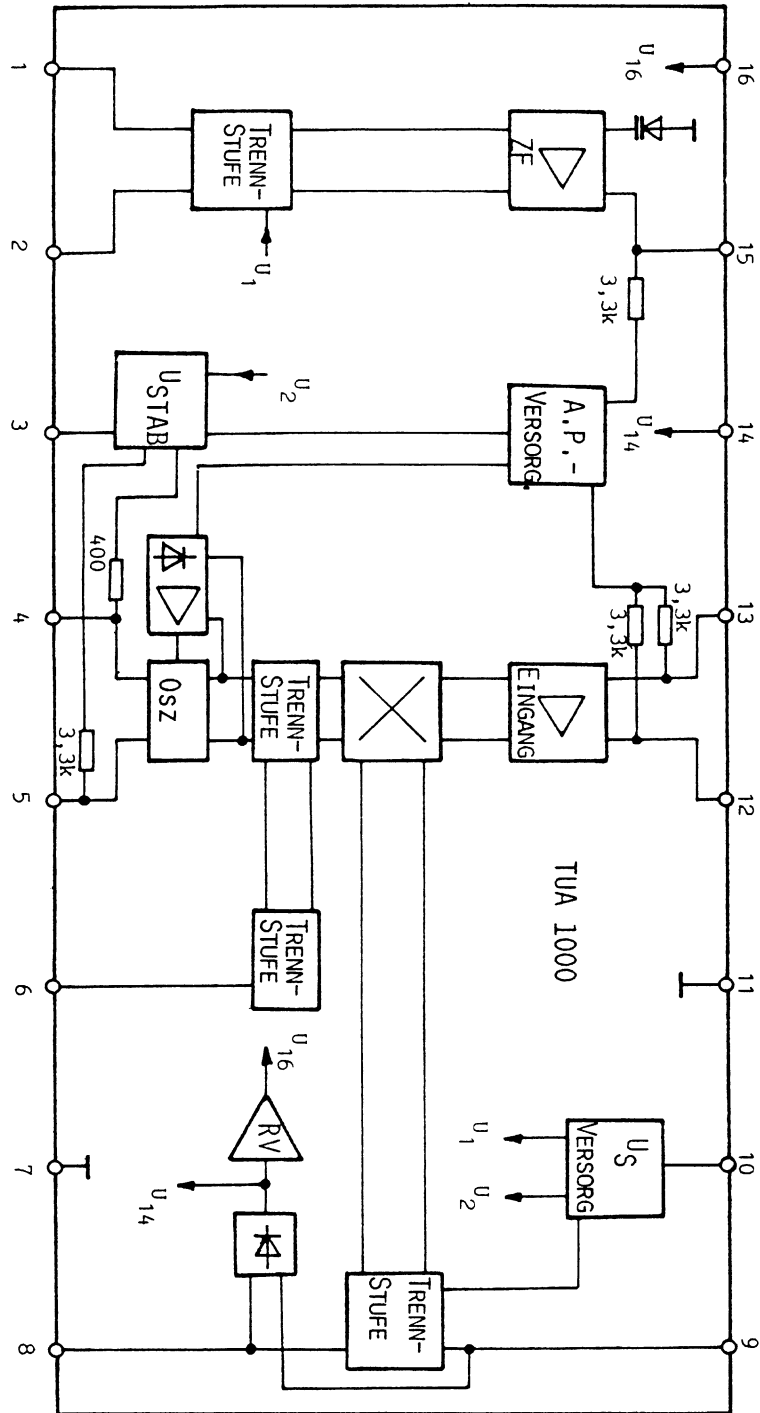
	M4	M5
M0	X0	X1
M1	X2	X3
M2	X4	X5
M3	X6	X7



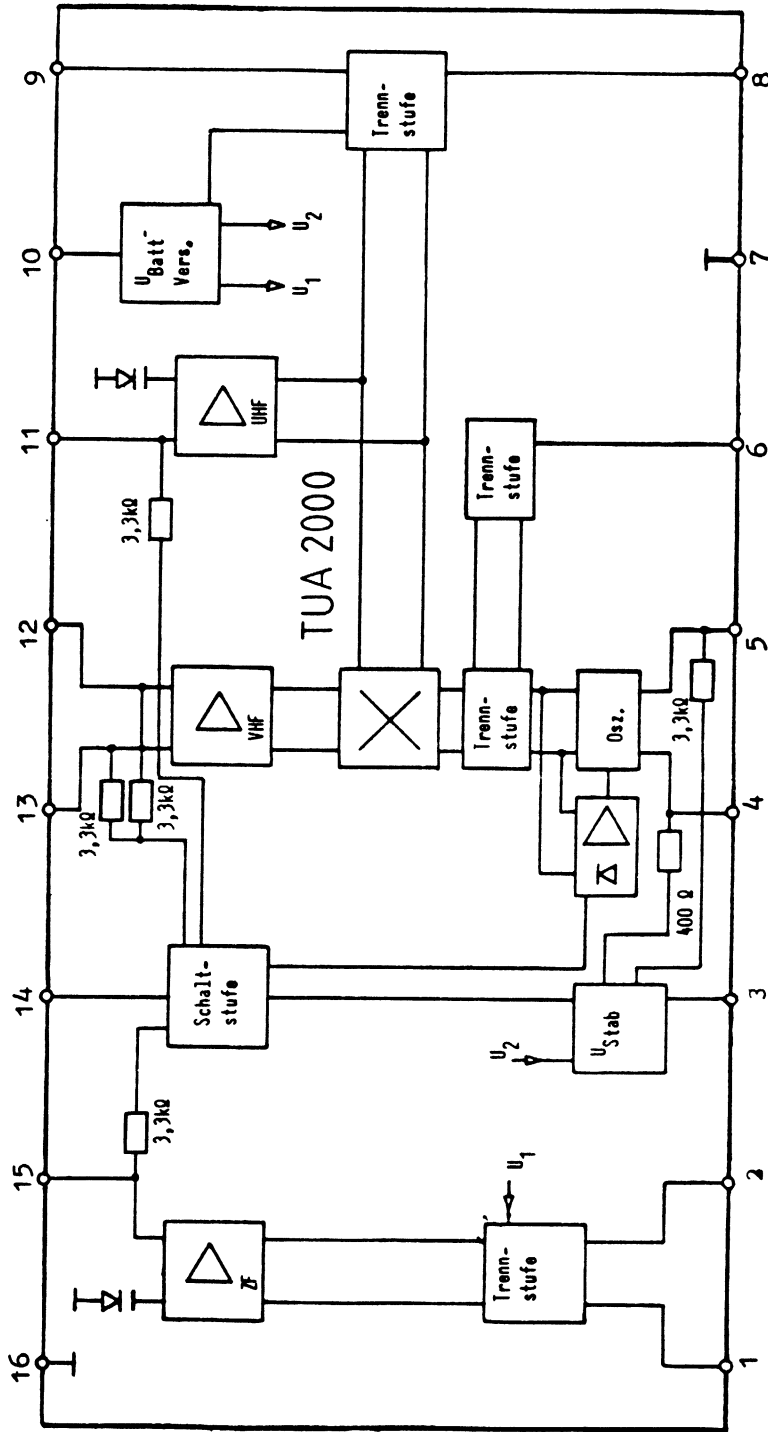
CD507



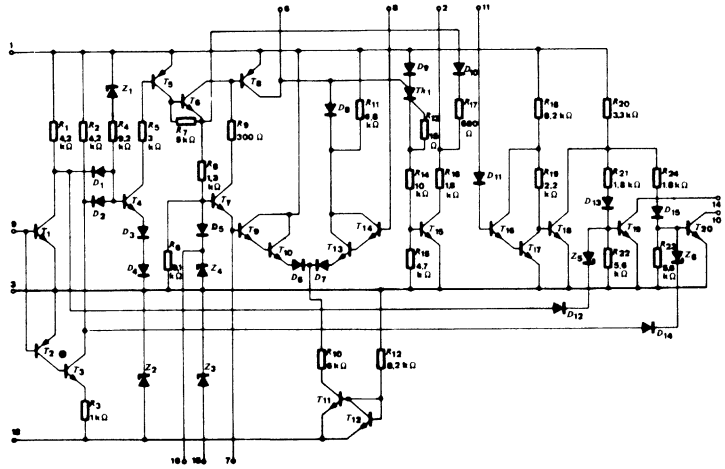
CD508



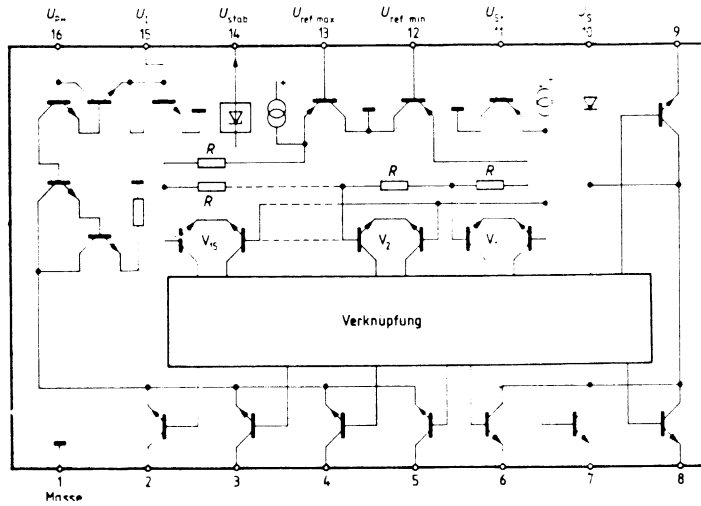
CD509



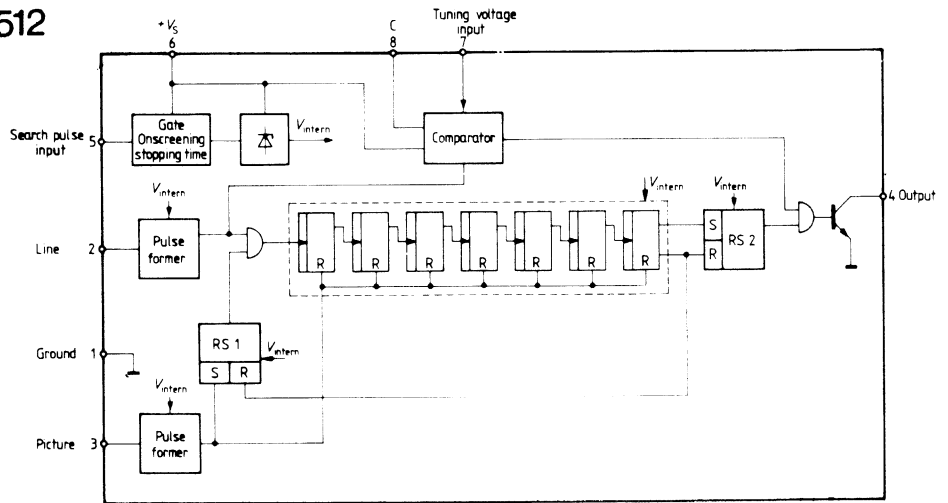
CD510



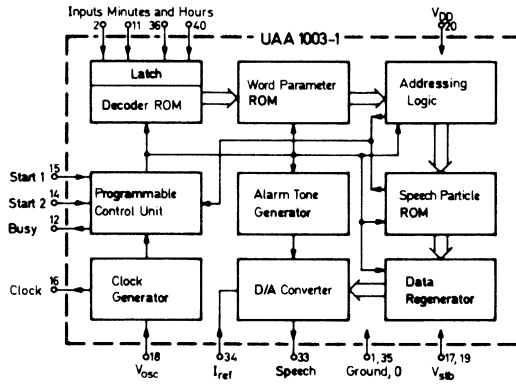
CD511



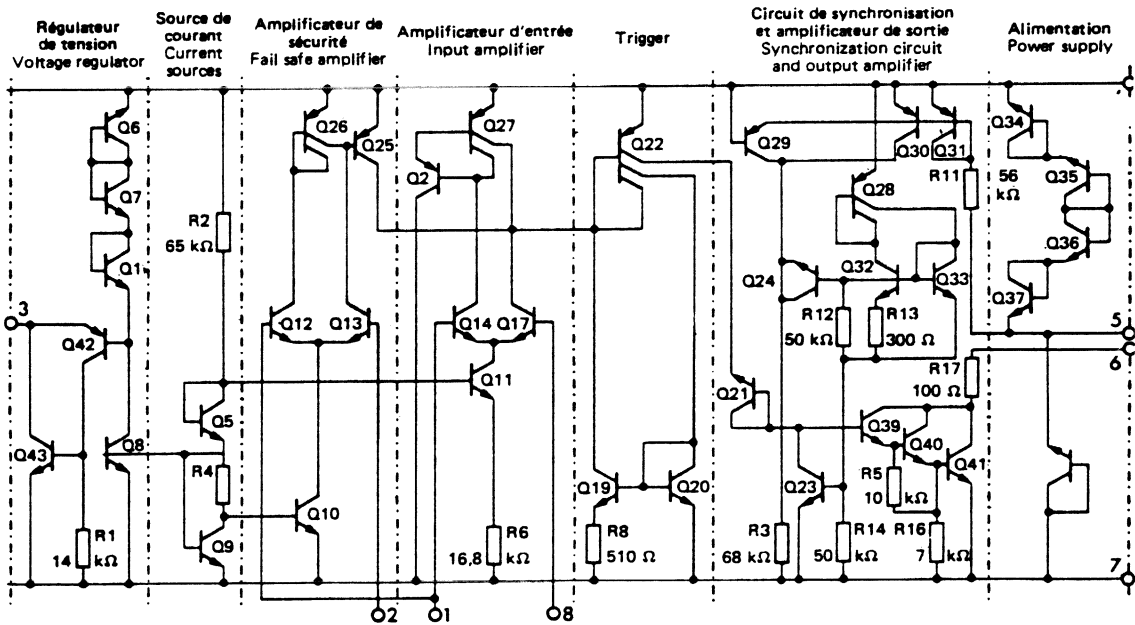
CD512



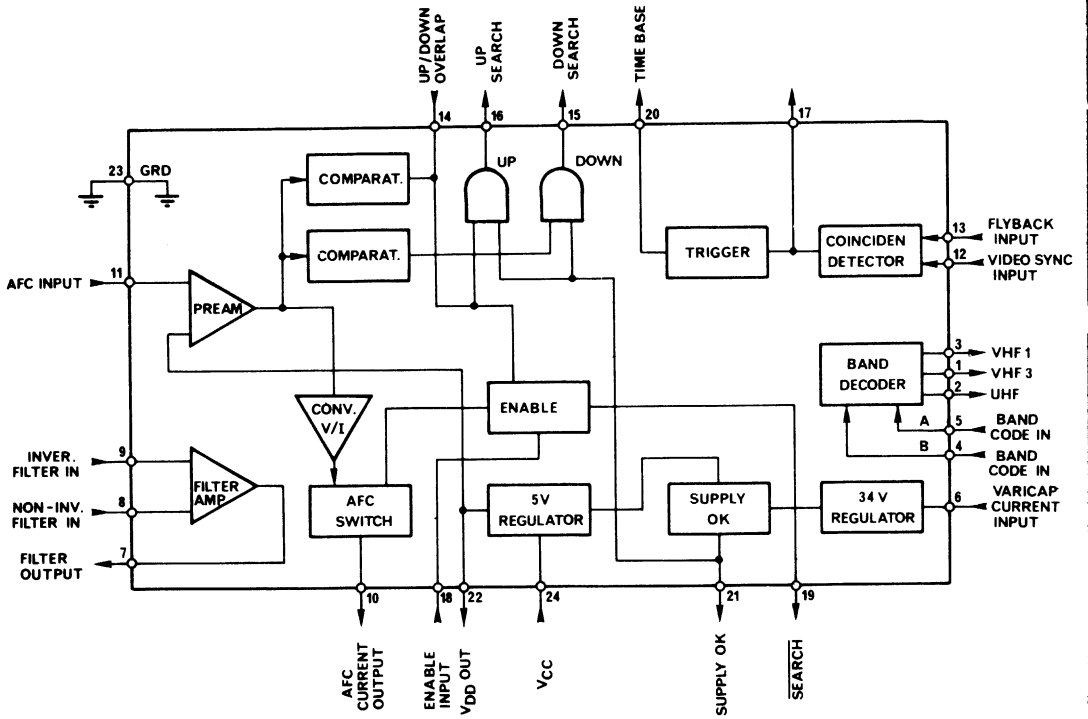
CD513



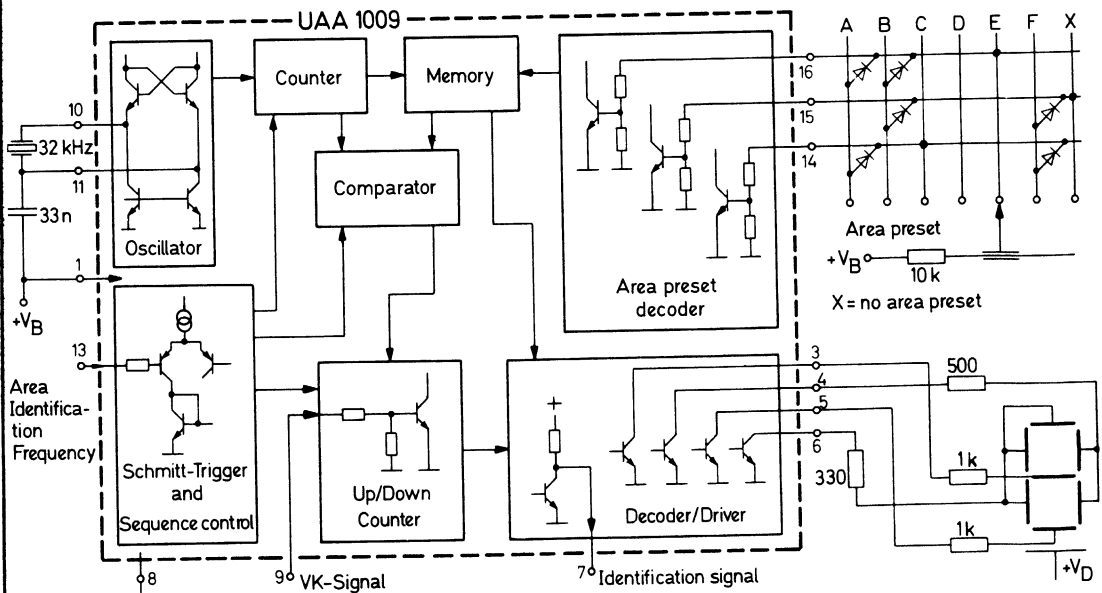
CD514



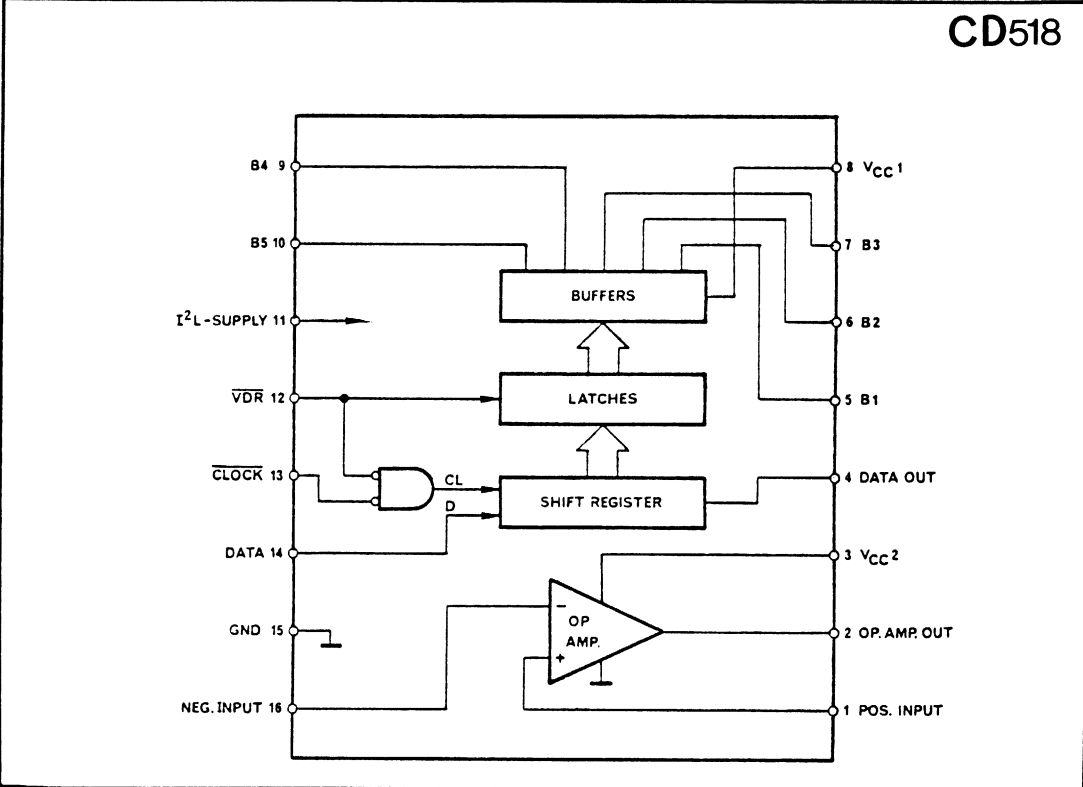
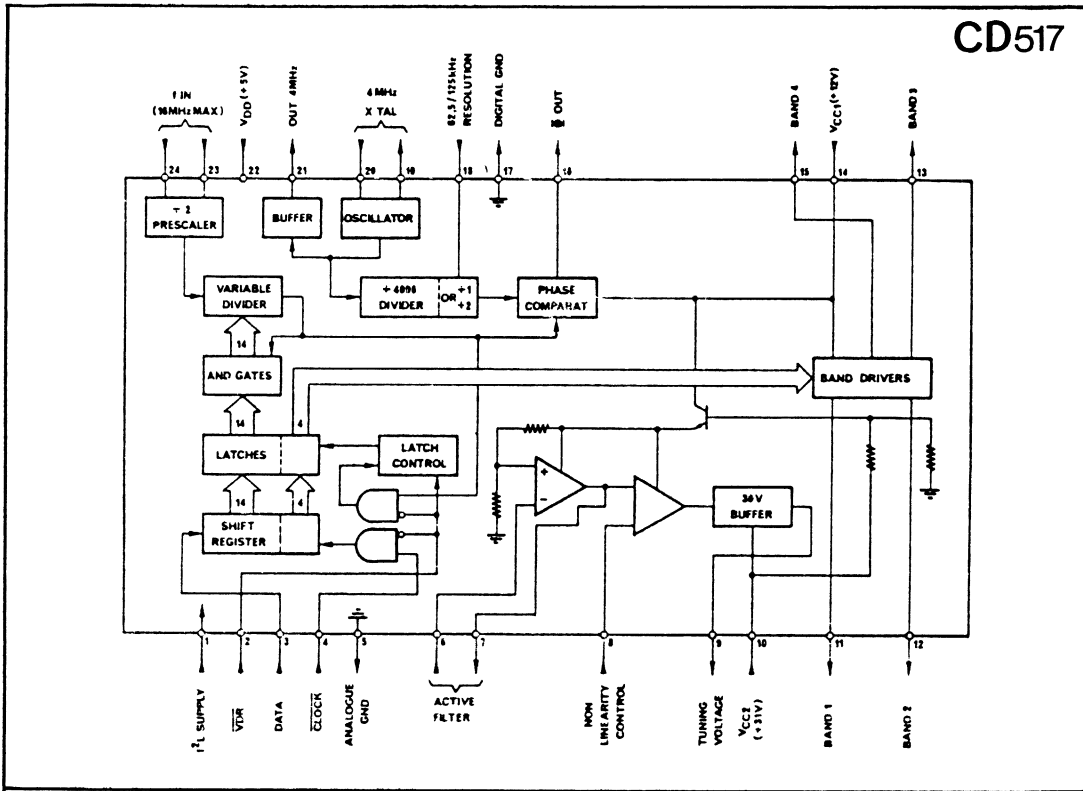
CD515



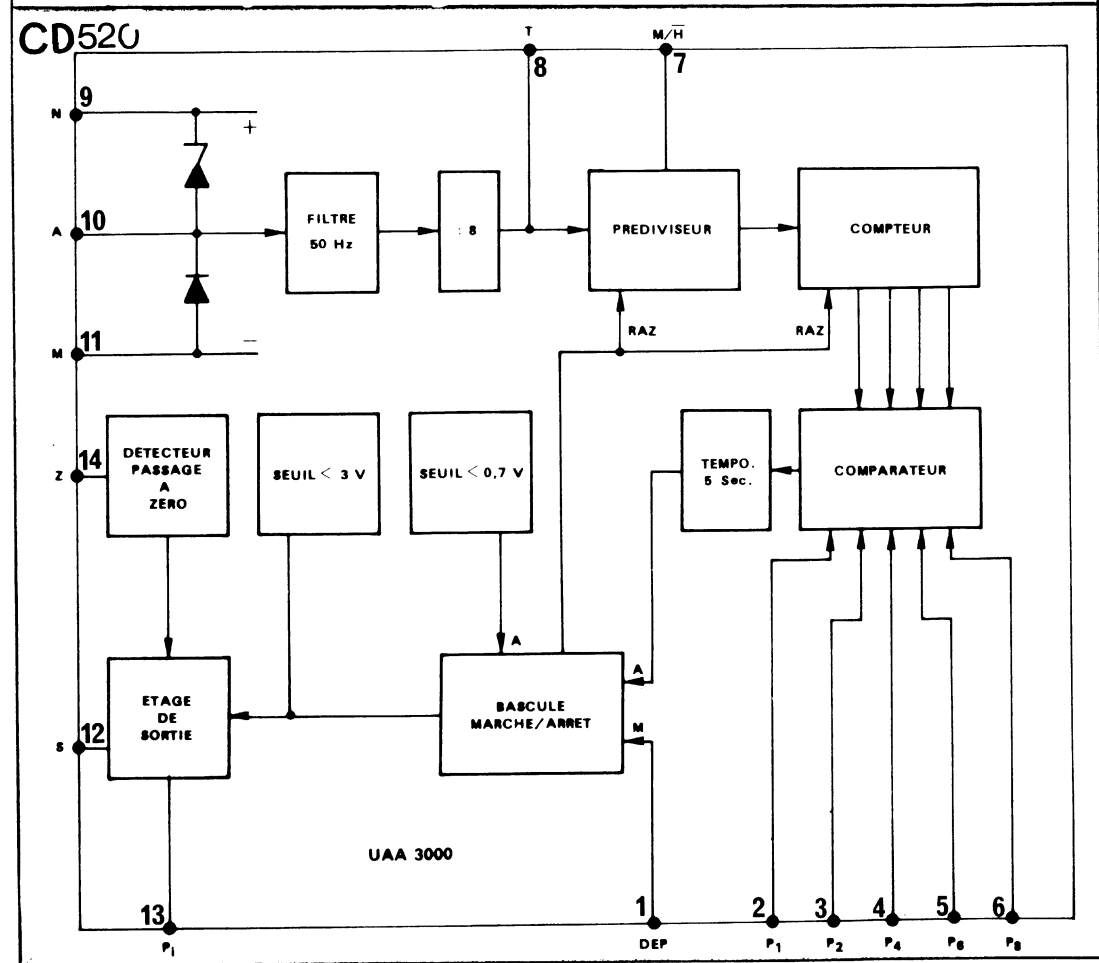
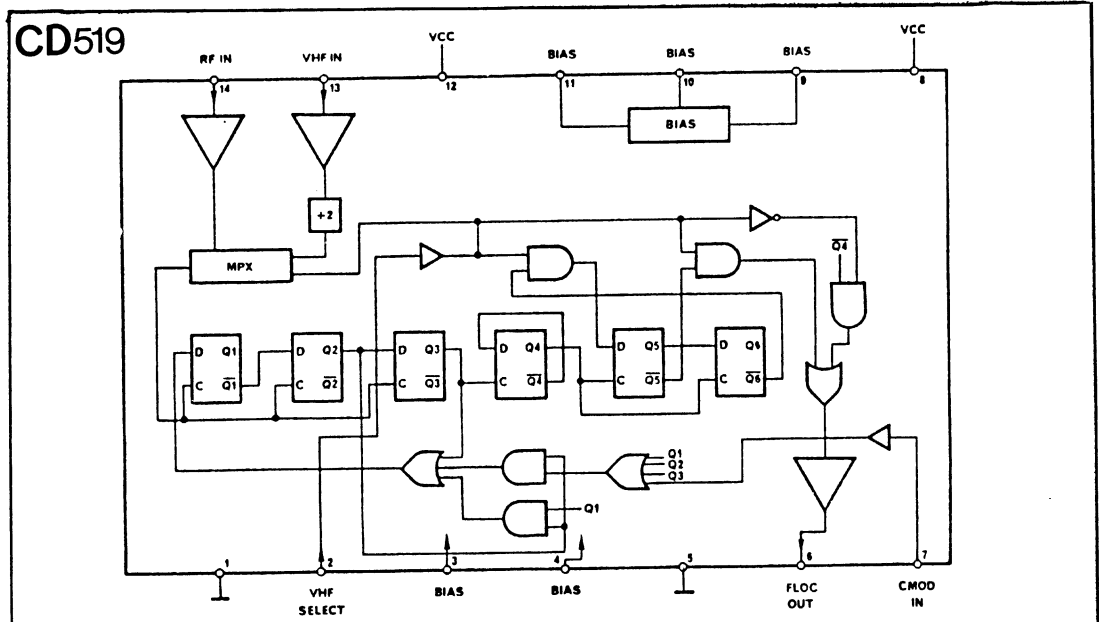
CD516



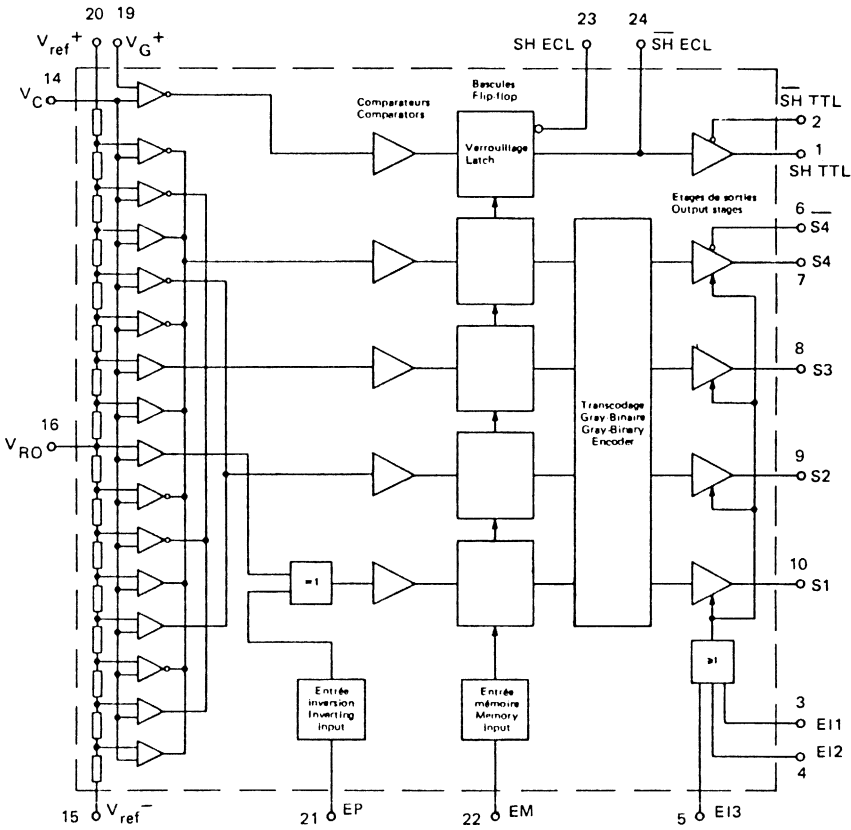
CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBILDER



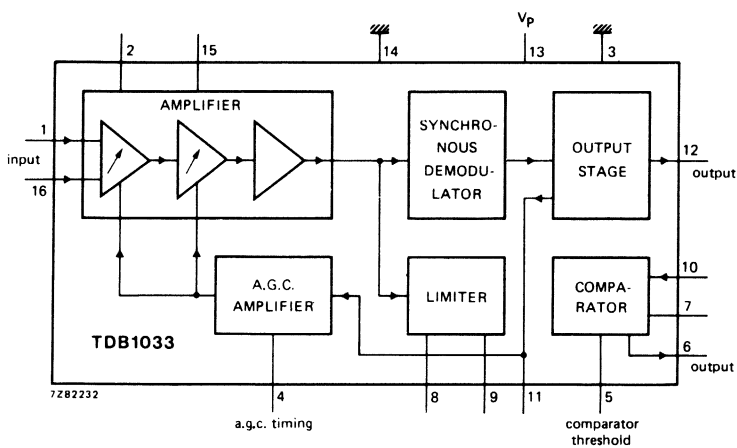
CIRCUIT DIAGRAMS - SCHEMAS DES CIRCUITS - FUNKTIONSSCHALTBIlder



CD521



CD522



DESIGNATION OF OUTLINE DRAWING NUMBERS

COMPOSITION :

2 LETTERS, 1 NUMBER/SERIAL NUMBER

Examples : DP14/1
QP16/3

DESIGNATION :

FIRST LETTER : GENERAL SHAPE (see Type Nomenclature page 8)

SECOND LETTER : MATERIAL (see Type Nomenclature page 8)

FIRST NUMBER : NUMBER OF LEADS

SERIAL NUMBER (separated from the "leads number" by a stroke)

DÉSIGNATION DES DESSINS D'ENCOMBREMENTS

COMPOSITION :

2 LETTRES, 1 NUMÉRO/NUMÉRO DE SÉRIE

Exemples : DP14/1
QP16/3

SIGNIFICATION :

PREMIÈRE LETTRE : FORME GÉNÉRALE (voir Code de Désignation page 13)

DEUXIÈME LETTRE : MATÉRIAU (voir Code de Désignation page 13)

PREMIER NUMÉRO : NOMBRE DE SORTIES

NUMÉRO DE SÉRIE (séparé du "numéro du nombre de conducteurs" par un trait oblique)

BEDEUTUNG DER GEHÄUSEABMESSUNGENBEZEICHNUNGEN

ZUSAMMENSTELLUNG :

2 BUCHSTABEN, EINE NUMMER/SERIENNUMMER

Beispiele : DP14/1
QP16/3

BEDEUTUNG :

ERSTE BUCHSTABE : ALLGEMEINE FORM (Siehe Typenbezeichnung Seite 18)

ZWEITE BUCHSTABE : MATERIAL (Siehe Typenbezeichnung Seite 18)

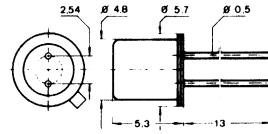
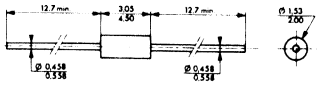
ERSTE NUMMER : ZAHL DER ANSCHLUSSE

SERIENNUMMER (getrennt von "Anschlusnummer" durch einen Strich)

CG2/1

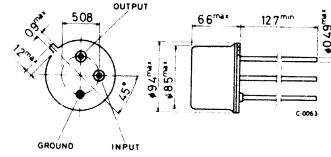
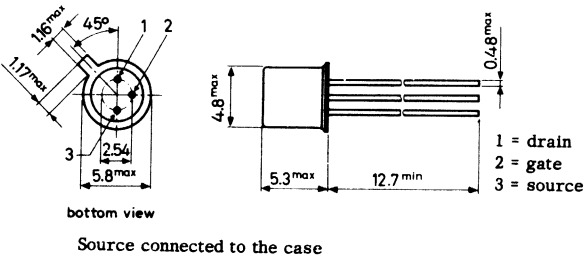
(DO - 35)

CM2/1



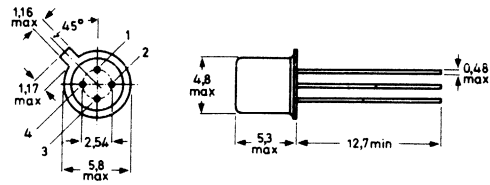
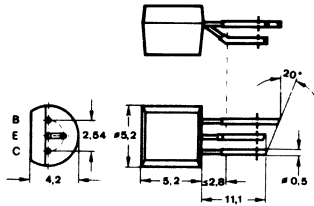
CM3/1

CM3/2



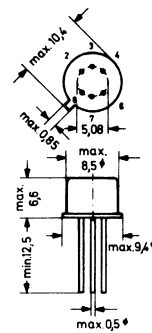
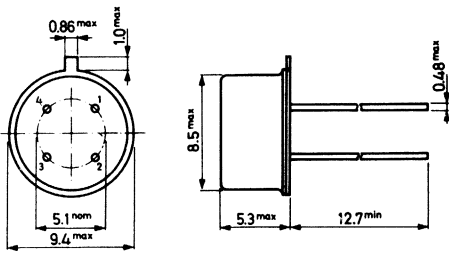
CM3/3

CM4/1

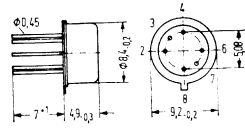


CM4/2

CM6/1

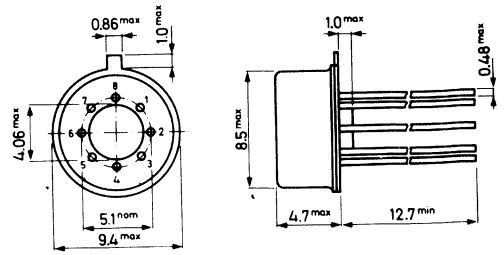


CM6/2



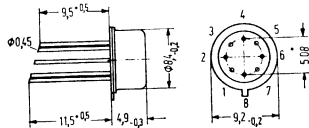
CM8/1

(TO-99)

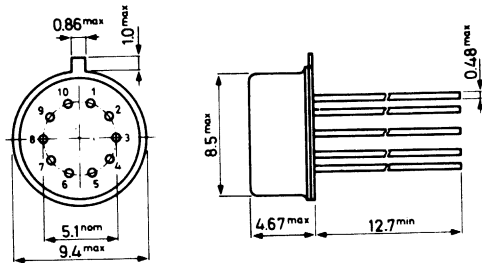


CM8/2

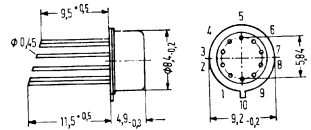
(TO-99)



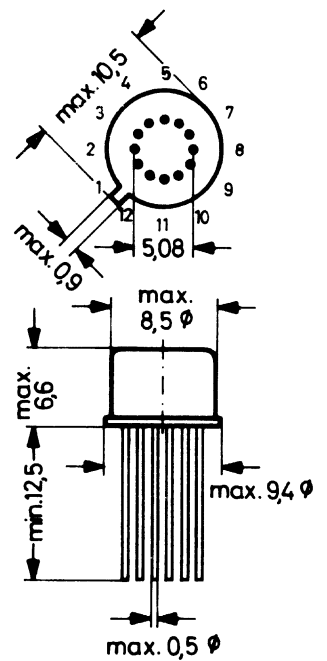
CM10/2



CM10/1

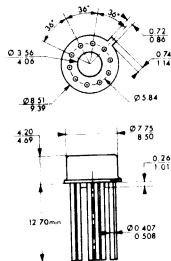


CM12/1

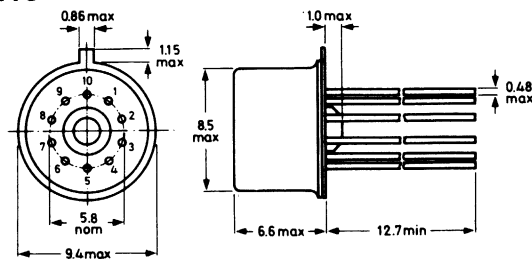


CM10/3

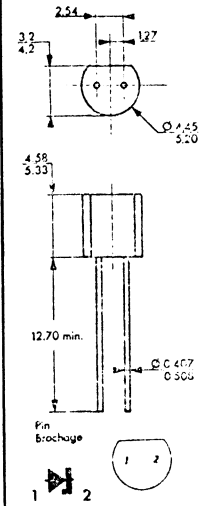
(TO-100)



CM10/4



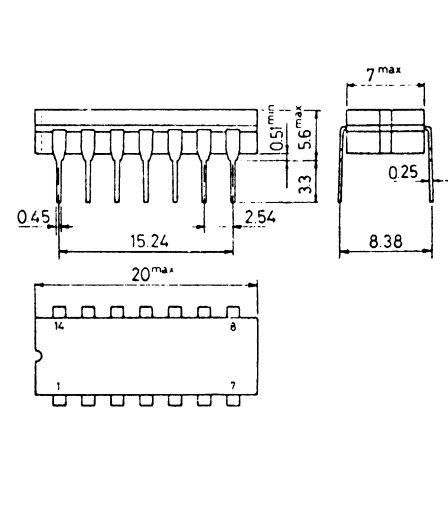
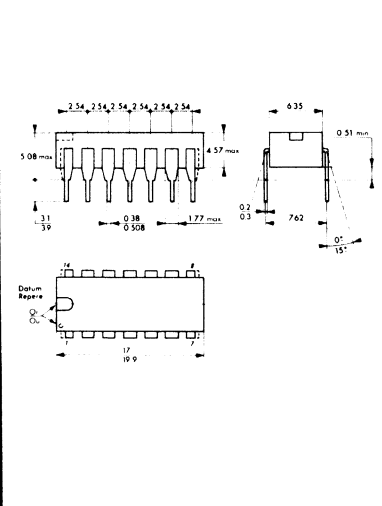
CP2/1



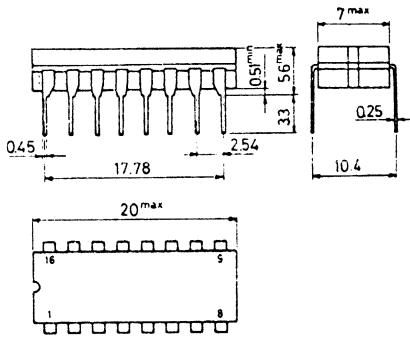
DC14/3

(TO-116)

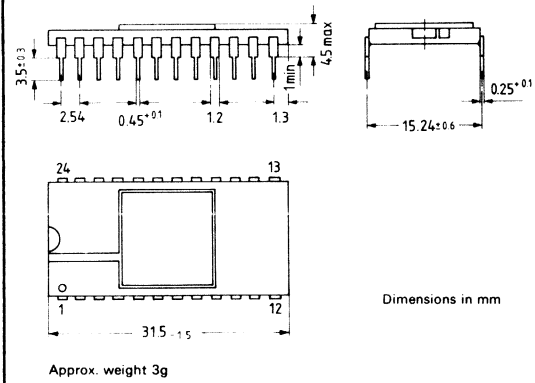
DC14/6



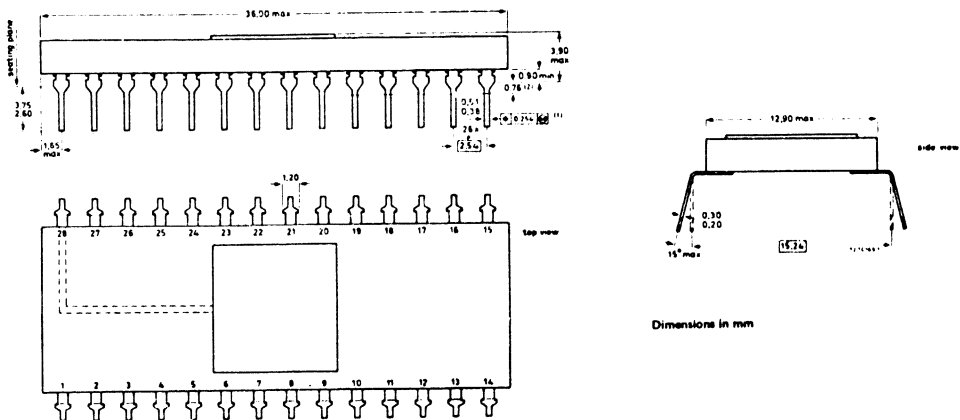
DC16/6



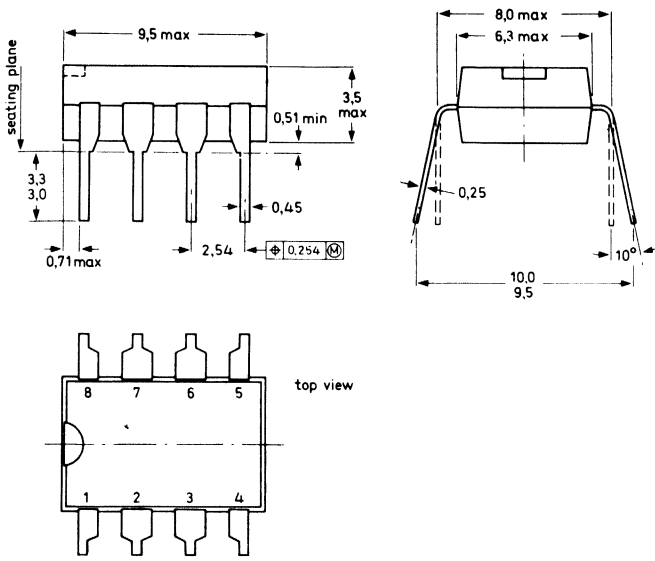
DC24/1



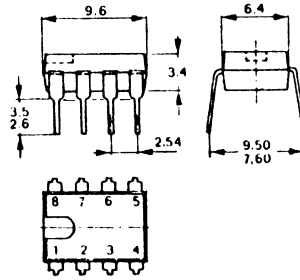
DC28/2



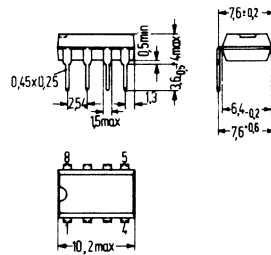
DP8/2



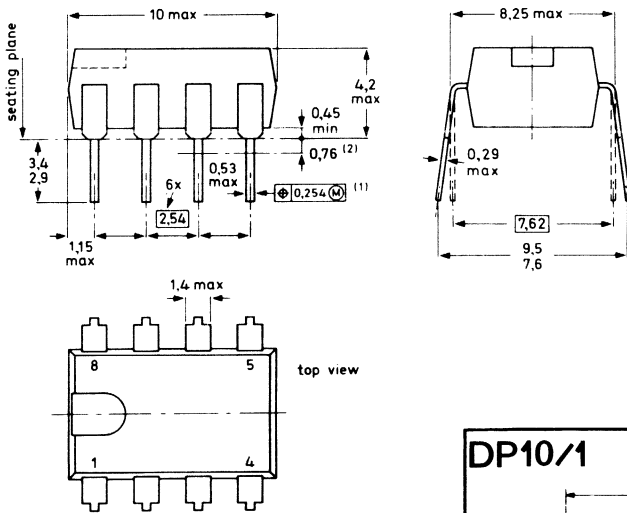
DP8/5



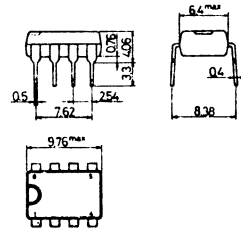
DP8/6



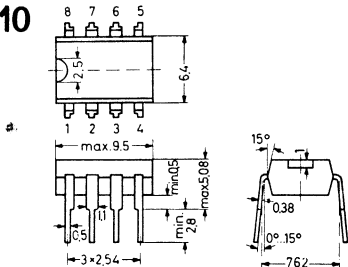
DP8/8



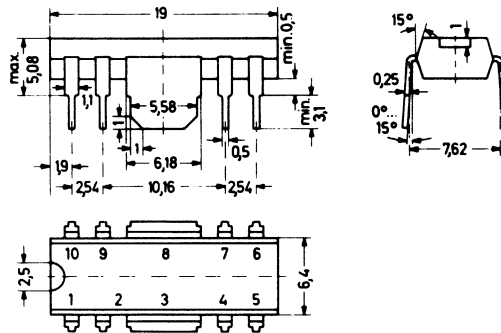
DP8/9



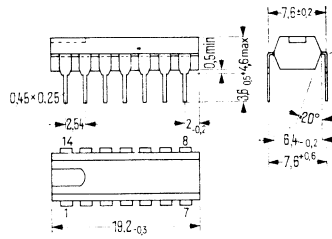
DP8/10



DP10/1

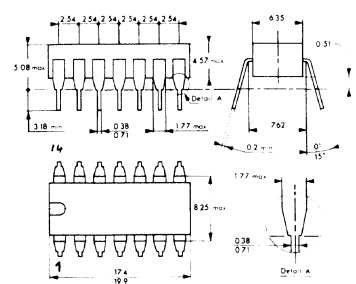


DP14/1

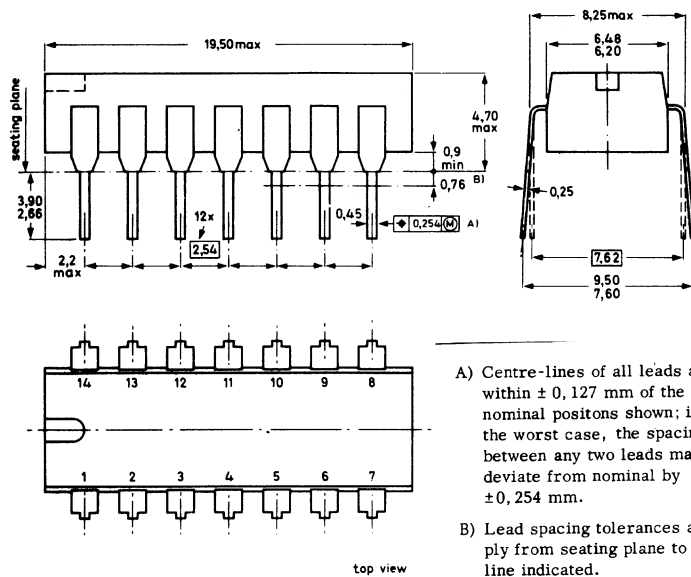


DP14/4

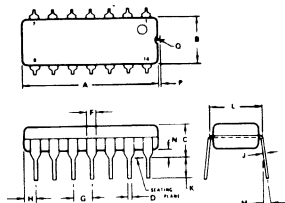
(TO-116)



DP 14/2



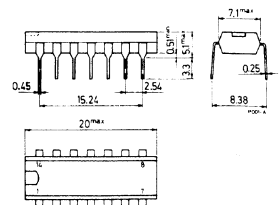
DP 14/5



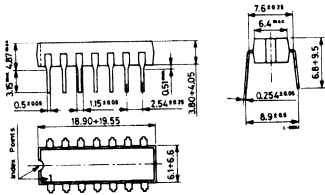
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	18.16	18.80	0.715	0.740
B	6.10	6.35	0.240	0.250
C	4.06	4.57	0.160	0.180
D	0.38	0.51	0.015	0.020
F	1.02	1.52	0.040	0.060
G	2.54	BSC	0.100	BSC
H	1.32	1.83	0.052	0.072
J	0.20	0.30	0.008	0.012
K	2.92	3.43	0.115	0.135
L	7.37	7.87	0.290	0.310
M	10°	10°		
N	0.51	1.02	0.020	0.040
P	0.13	0.38	0.005	0.015
O	0.51	0.76	0.020	0.030

NOTES:
 1. LEADS WITHIN 0.13 mm (0.005) RADIUS OF TRUE POSITION AT SEATING PLANE AT MAXIMUM MATERIAL CONDITION.
 2. DIMENSION L IS CENTER LINE LEADS WHEN FORMED PARALLEL.

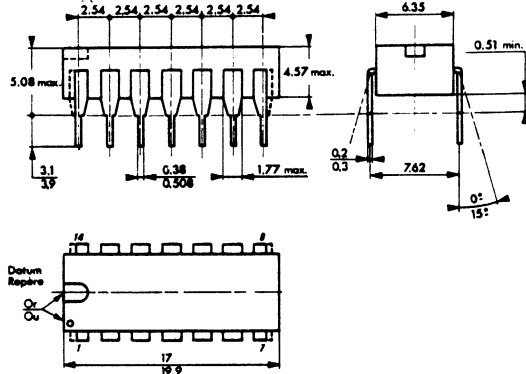
DP14/6



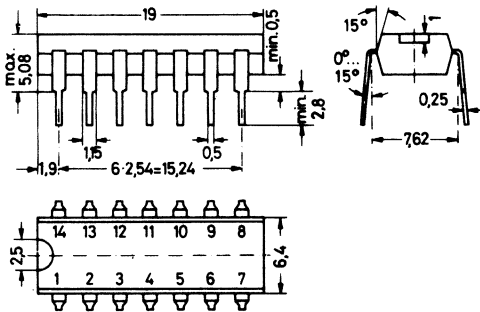
DP14/7



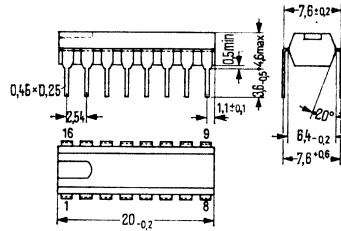
DP14/8



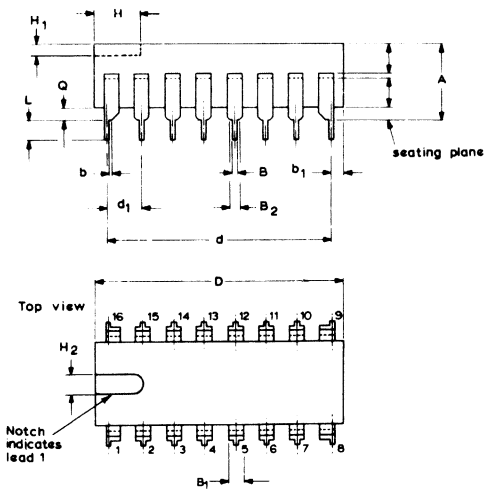
DP14/9



DP16/1



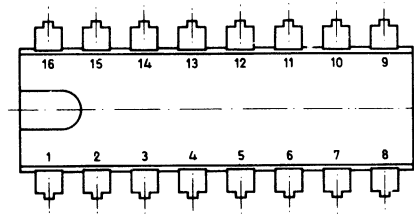
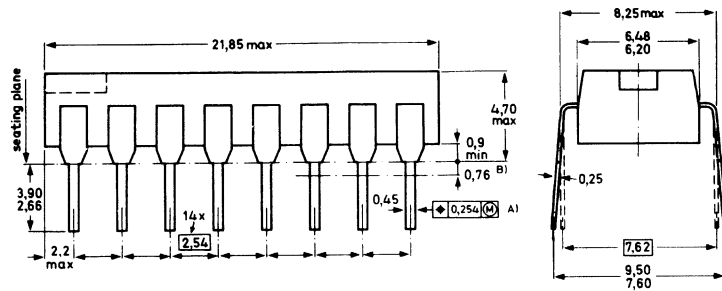
DP16/2



All dimensions in mm

Ref.	min.	nom.	max.
A	4-4	—	4-7
B	0-40	0-48	0-56
B ₁	1-14	1-27	1-40
B ₂	0-74	0-89	0-94
b	—	—	0-25
b ₁	0-65	—	1-15
C	0-23	—	0-29
D	19-06	19-56	20-06
d	17-28	17-78	18-28
d ₁	2-29	2-54	2-79
E	7-8	—	8-25
E ₁	6-14	6-35	6-48
e	8-25	8-89	9-53
H	—	—	2-5
H ₁	0-8	0-9	1-0
H ₂	1-02	1-28	1-54
L	2-66	2-79	3-9
Q	0-9	—	1-2

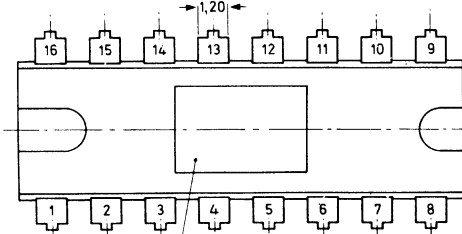
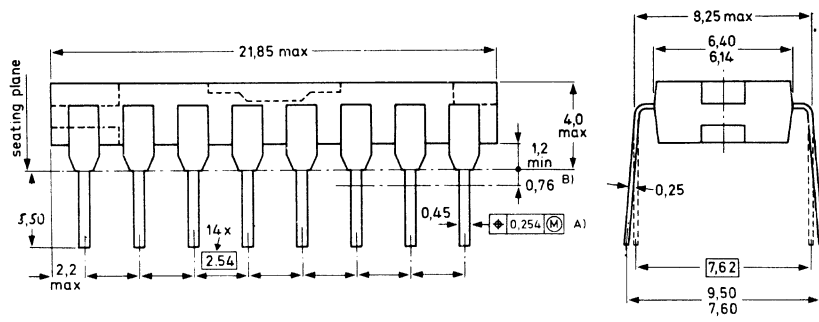
DP16/3



top view

- A) Centre-lines of all leads are within $\pm 0,127$ mm of the nominal positions shown; in the worst case, the spacing between any two leads may deviate from nominal by $\pm 0,254$ mm.
- B) Lead spacing tolerances apply from seating plane to the line indicated

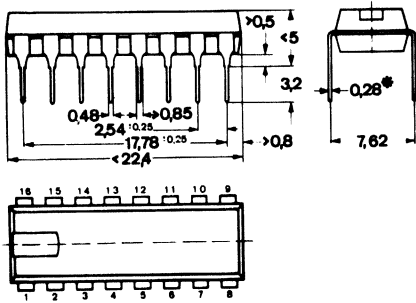
DP 16/4



top view

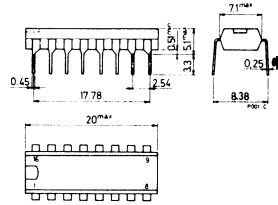
- A) Centre-lines of all leads are within $\pm 0,127$ mm of the nominal positions shown; in the worst case, the spacing between any two leads may deviate from nominal by $\pm 0,254$ mm.
- B) Lead spacing tolerances apply from seating plane to the line indicated

DP16/5/5A



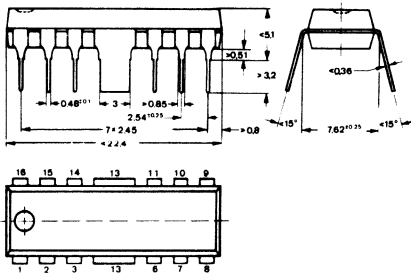
*DP16/5A : 0,33

DP16/6/6A/6B

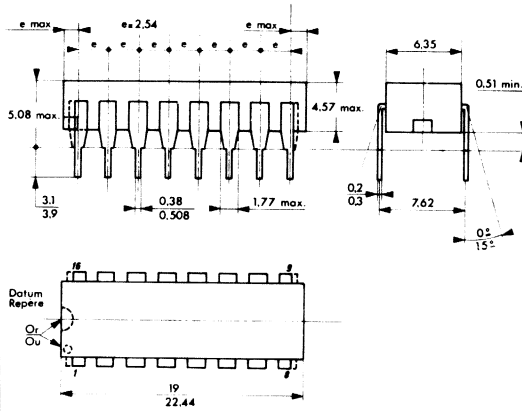


*DP16/6A : 0,30
DP16/6B : 0,40

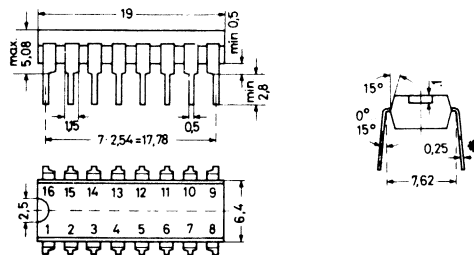
DP16/7



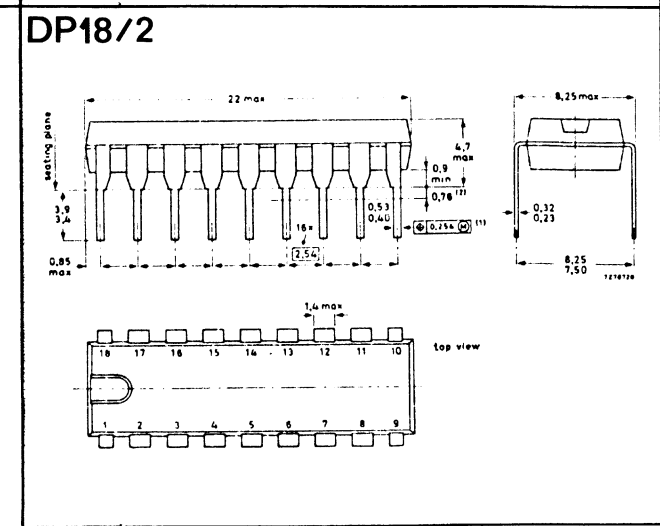
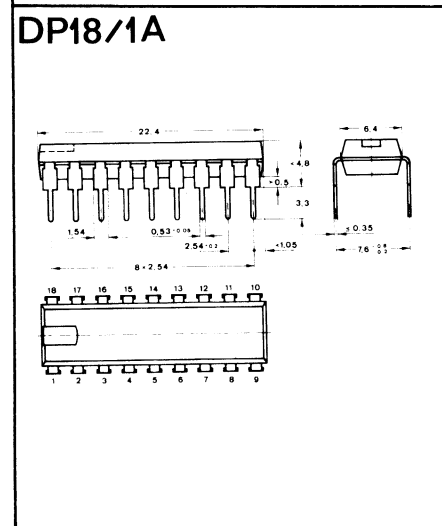
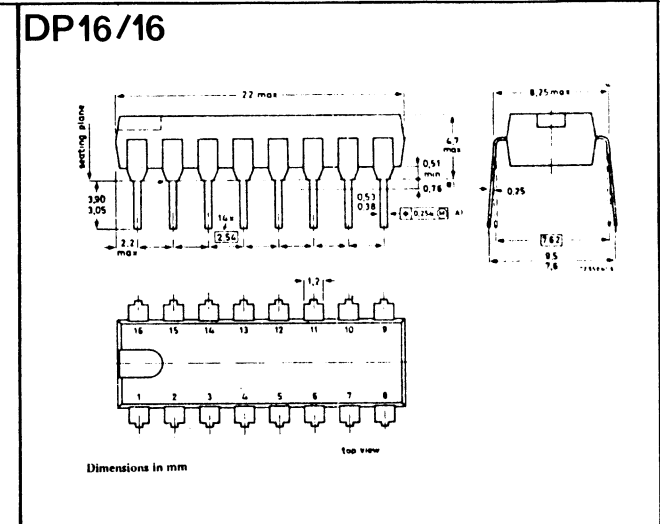
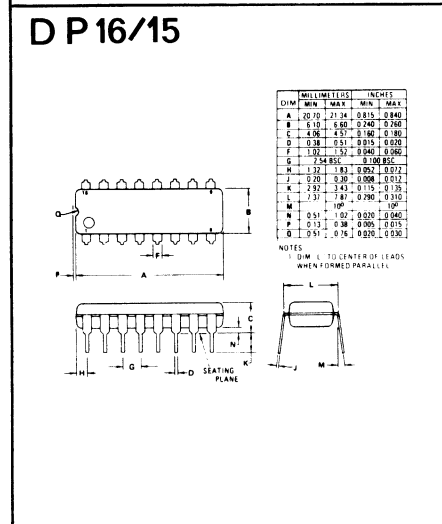
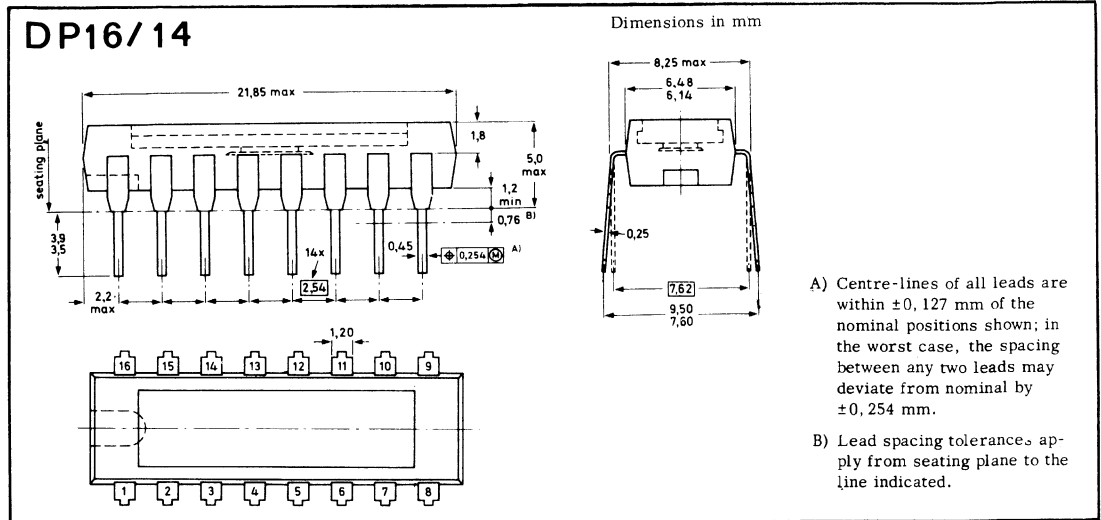
DP16/11



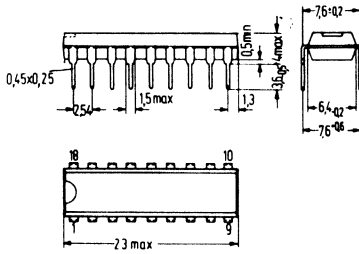
DP16/13/13A



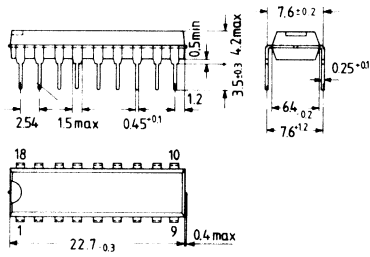
* DP16/13A : 0,38



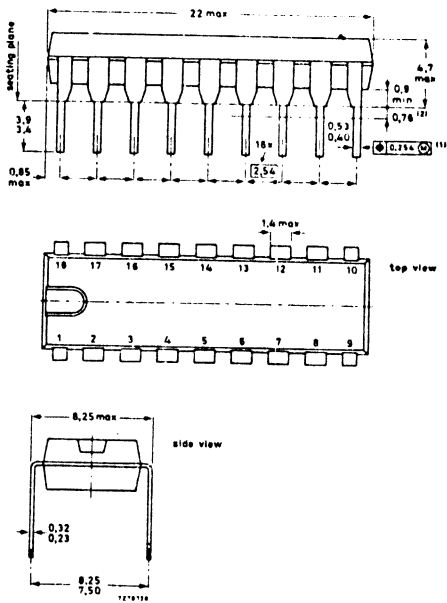
DP18/3



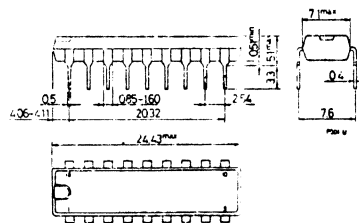
DP18/3A



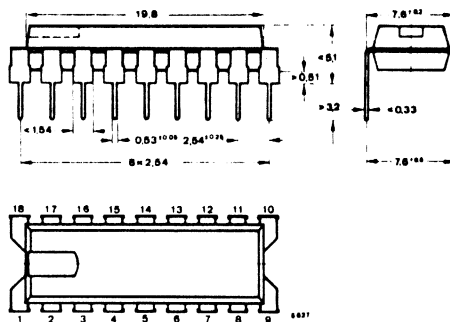
DP18/4



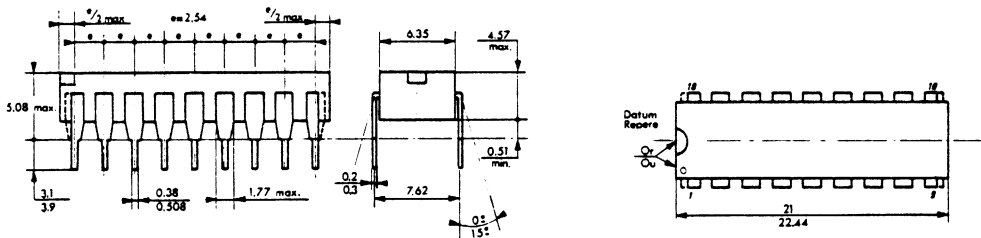
DP18/5



DP18/6

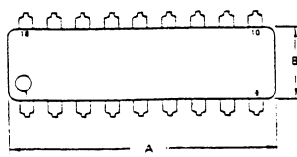


DP18/7

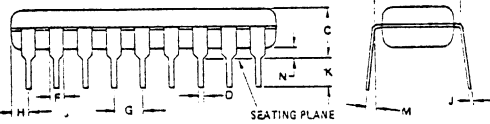


OUTLINES - DESSINS D'ENCOMBREMENTS - GEHAUSEABMESSUNGEN

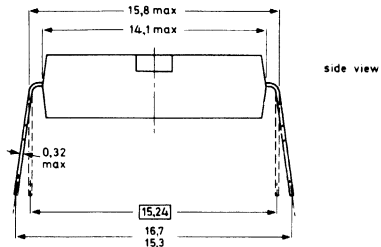
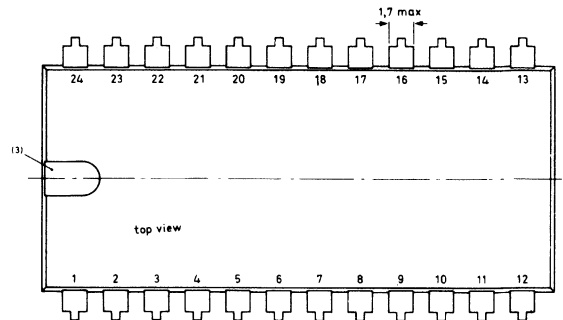
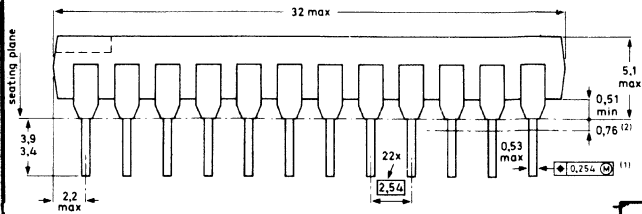
DP18/8



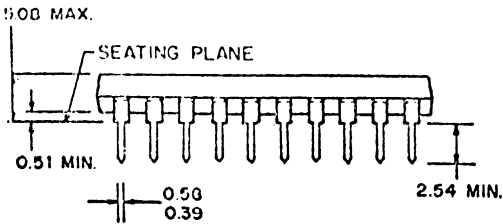
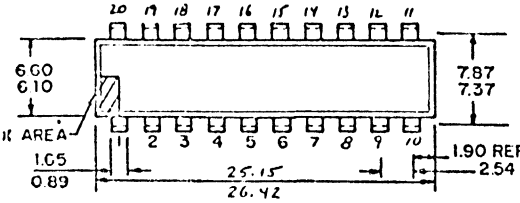
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	25.22	27.24	0.993	1.0715
B	2.83	3.11	0.111	0.122
C	4.06	4.57	0.160	0.180
D	0.26	0.31	0.010	0.012
F	1.02	1.52	0.040	0.060
G	2.41	2.67	0.095	0.105
H	1.14	1.40	0.045	0.055
J	0.20	0.23	0.008	0.009
K	3.58	3.68	0.140	0.144
L	7.37	7.87	0.290	0.310
M	10°	10°	10°	10°
N	0.51	1.02	0.020	0.040



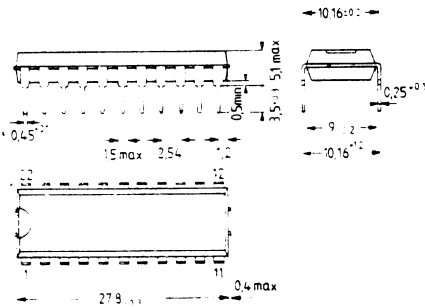
DP24/1



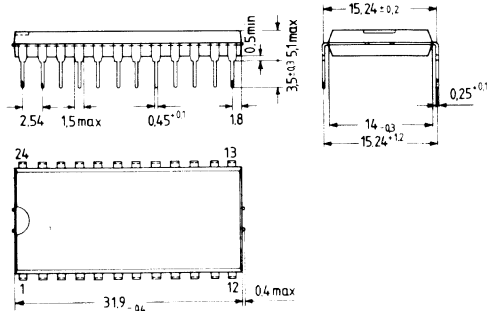
DP20/1



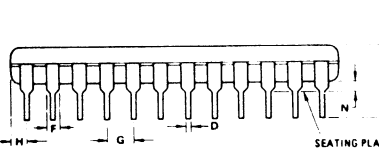
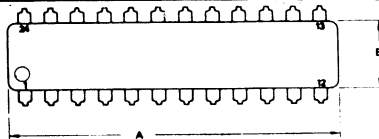
DP22/2



DP24/4

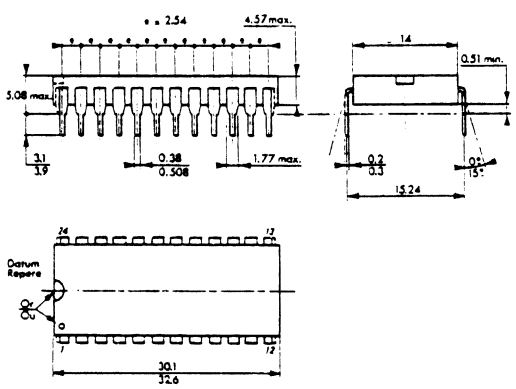


DP24/5

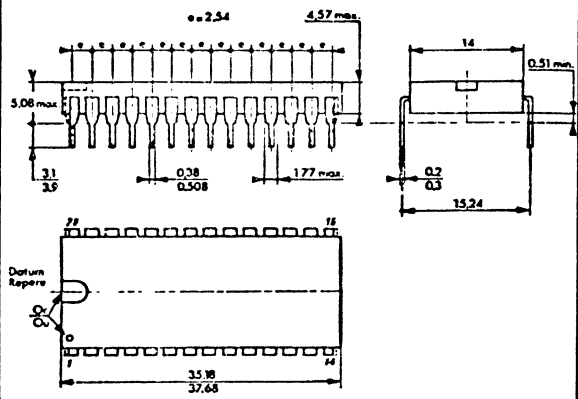


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	31.24	32.13	1.260	1.286
B	6.10	6.60	0.240	0.260
C	4.06	4.57	0.160	0.180
D	0.38	0.51	0.015	0.020
F	1.02	1.52	0.040	0.060
G	2.54	BSC	0.100	BSC
H	1.60	2.11	0.063	0.083
J	0.18	0.30	0.007	0.012
K	2.92	3.43	0.115	0.135
L	7.35	7.87	0.290	0.310
M	-	10°	-	10°
N	0.51	1.02	0.020	0.040

DP24/7

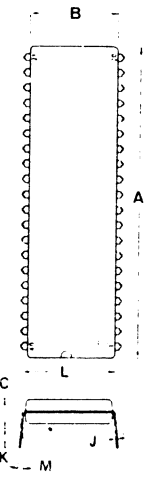


DP28/2

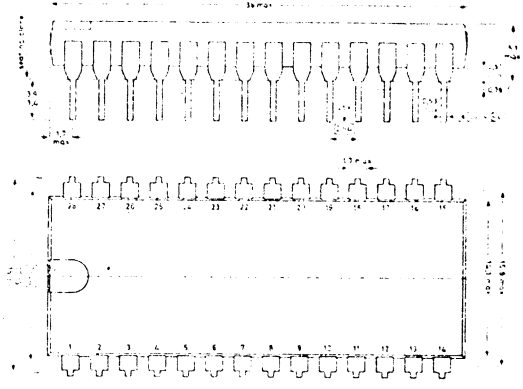


DP40/1

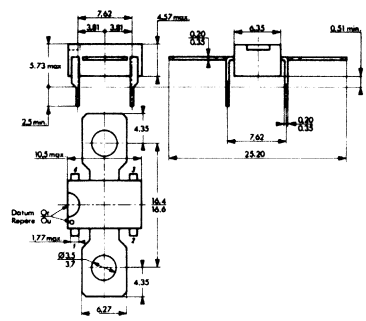
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	51.82	52.32	2.040	2.060
B	13.72	14.22	0.540	0.560
C	4.57	5.08	0.180	0.200
D	0.36	0.51	0.014	0.020
F	1.02	1.52	0.040	0.060
G	2.54 BSC		0.100 BSC	
H	1.65	2.16	0.065	0.095
J	0.20	0.30	0.008	0.012
K	3.05	3.56	0.120	0.140
L	15.24 BSC		0.600 BSC	
M	0°	10°	0°	10°
N	0.51	1.02	0.020	0.040



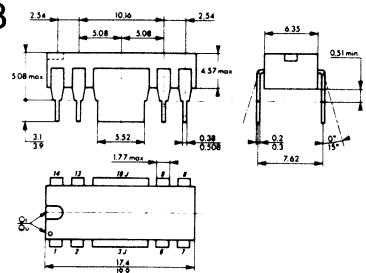
DP28/3



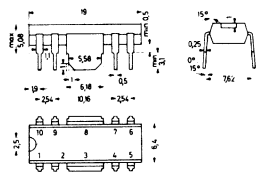
EP4/1



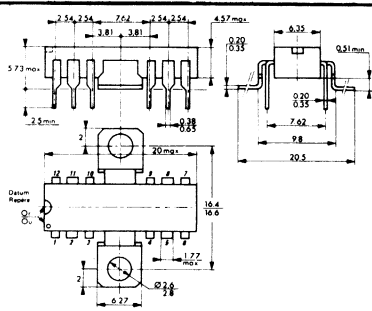
EP10/3

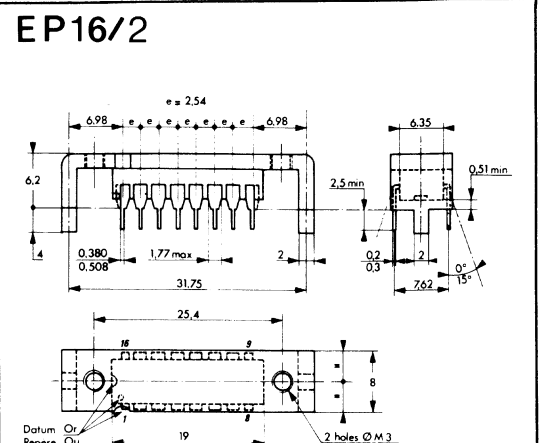
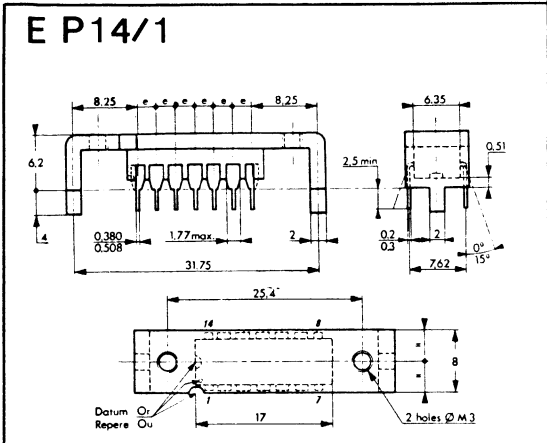


EP10/1

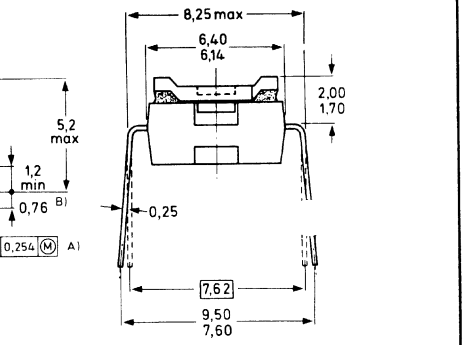
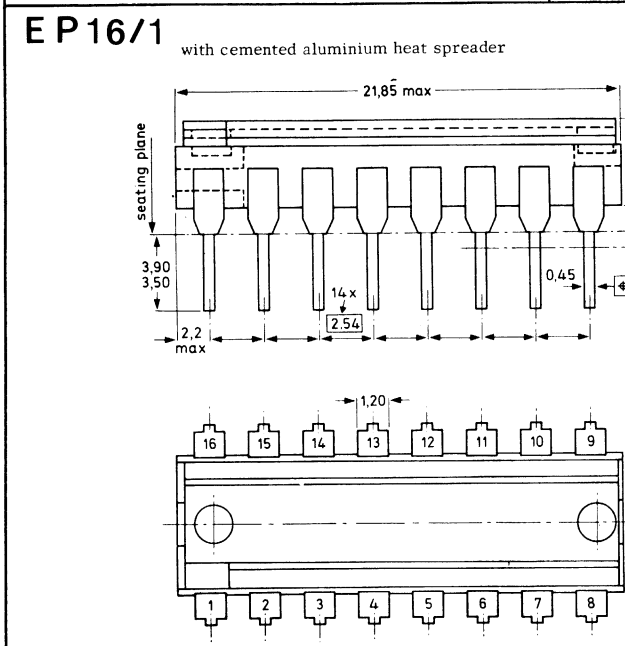


EP12/1

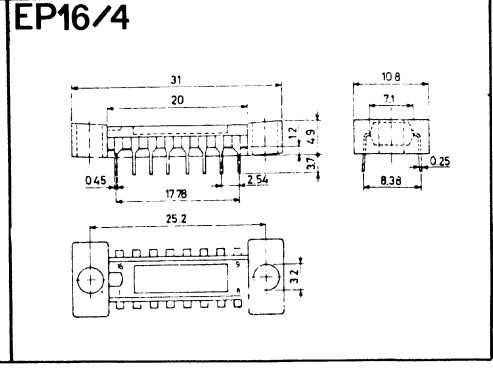
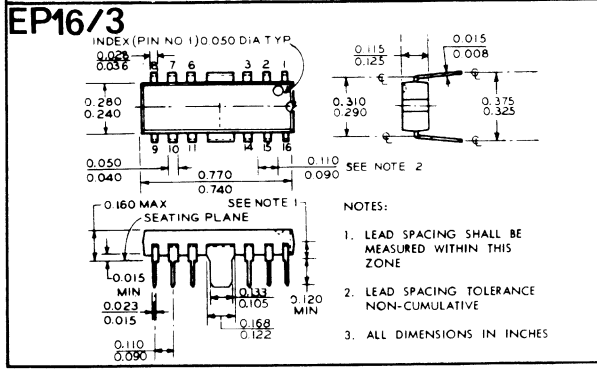




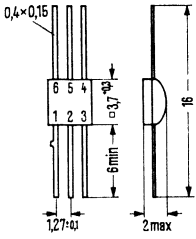
EP14/2 : Same dimensions as RP14/3 and DP14/6



A) Centre-lines of all leads are within $\pm 0,127$ mm of the nominal positions shown; in the worst case, the spacing between any two leads may deviate from nominal by $\pm 0,254$ mm.
 B) Lead spacing tolerances apply from seating plane to the line indicated



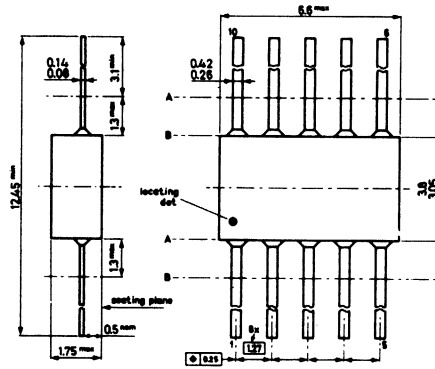
FC6/1



FC6/2

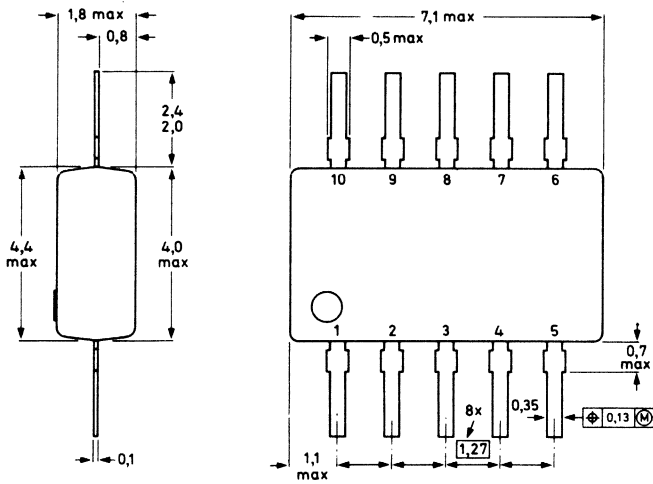


FM10/2

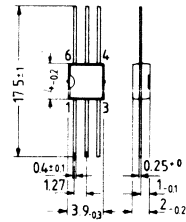


FM10/3

dimensions in mm

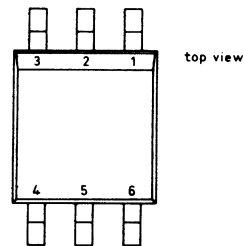
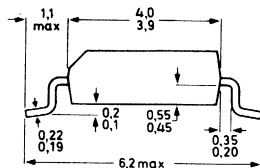
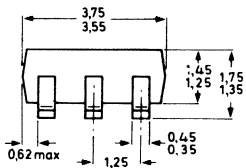


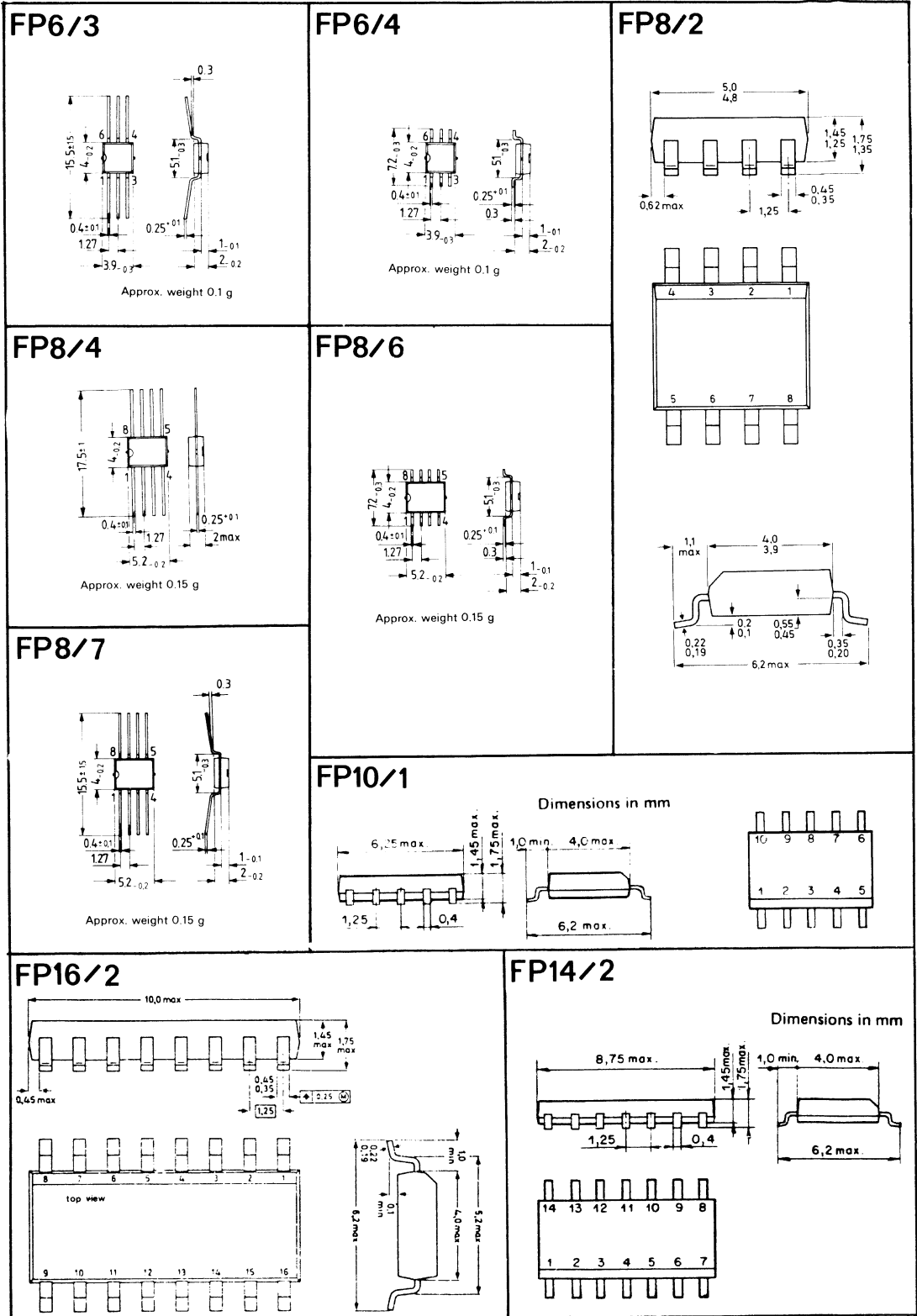
FP6/1



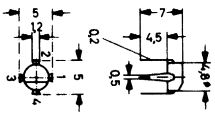
Approx. weight 0,1 g

FP6/2

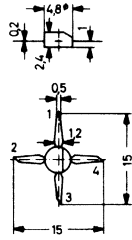




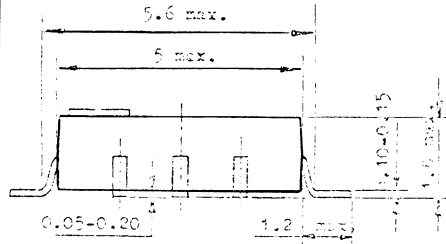
GP4/1



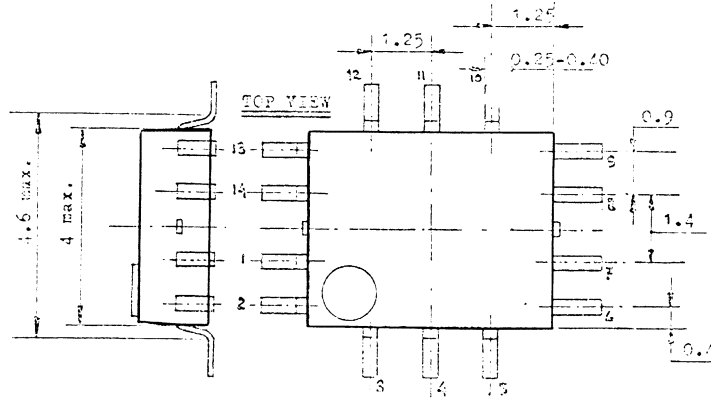
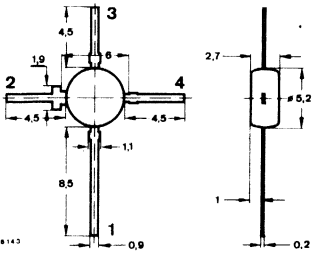
GP4/2



GP14/1



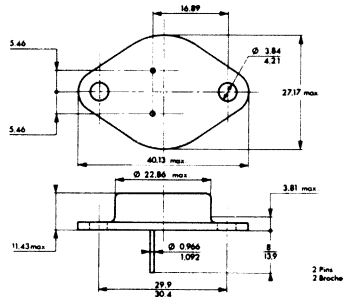
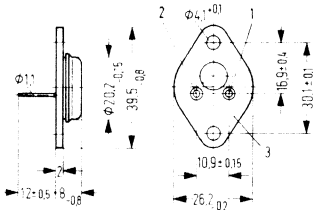
GP4/3



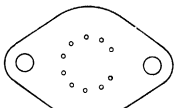
K M 2 / 1

(TO-3)

K M 2 / 2

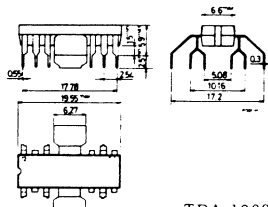


KM10/1



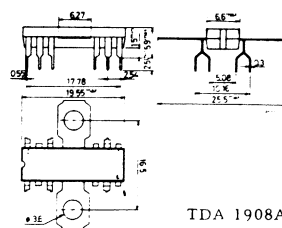
TO-3 10 Pins
10 Passages

QP12/1



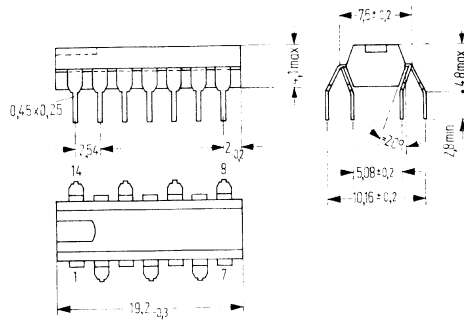
TDA 1908

QP12/2

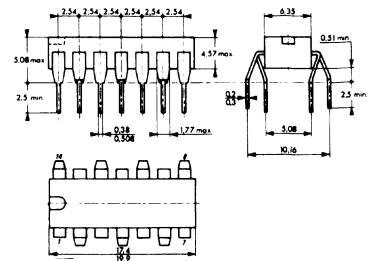


TDA 1908A

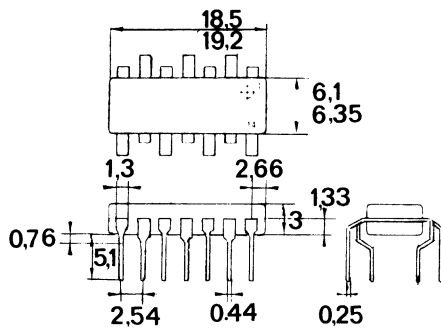
QP14/1



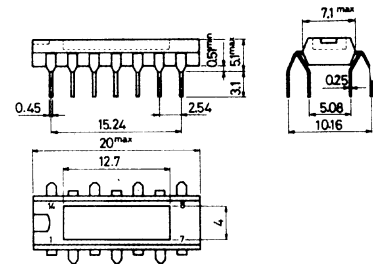
QP14/2



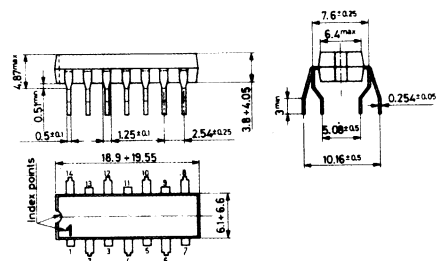
QP14/3



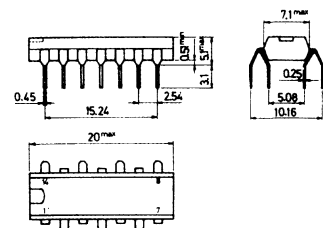
QP14/4



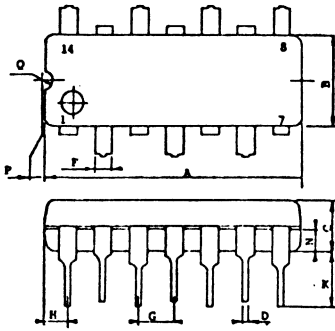
QP14/5



QP 14/6

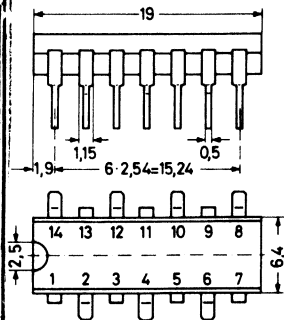


QP14/7

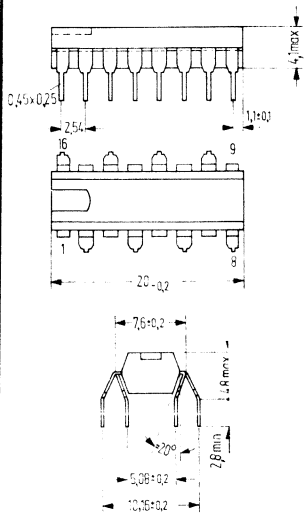


DIM.	MILLIMETERS		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	18.16	18.80	.715	.740
B	6.10	6.60	.240	.260
C	3.30	3.81	.130	.150
D	0.38	0.51	.015	.020
F	1.02	1.52	.040	.060
G	2.54	BSC.	.100	BSC.
H	1.32	1.83	.052	.072
J	0.20	0.30	.008	.012
K	3.50	-	.135	-
L	9.52	10.92	.375	.430
N	1.02	1.52	.040	.060
P	0.13	0.38	.005	.015
Q	0.51	0.76	.020	.030
R	4.7	5.97	.185	.235

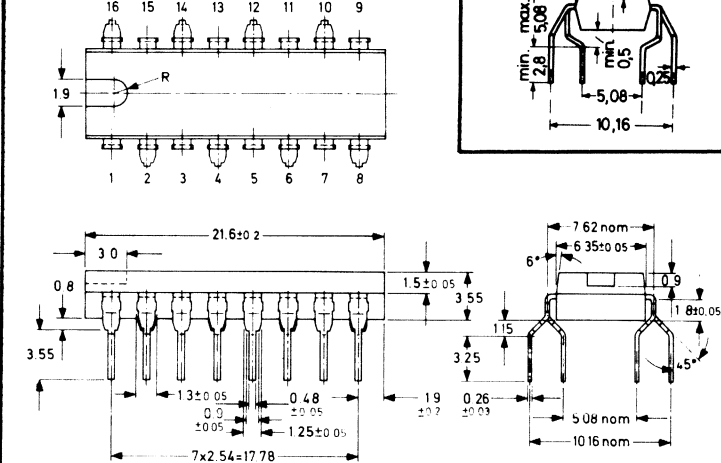
QP14/8



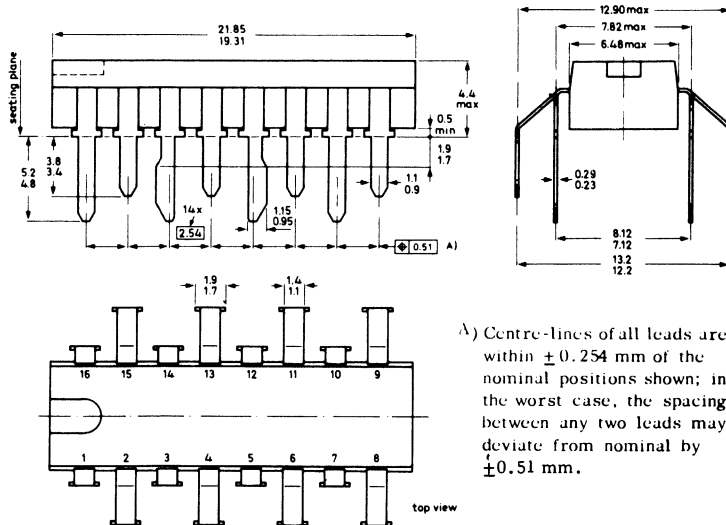
QP16/1



QP16/2

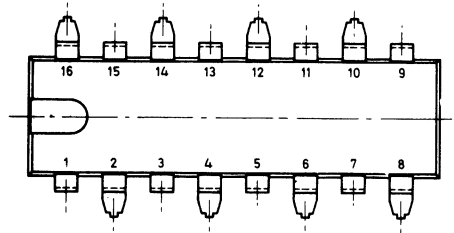
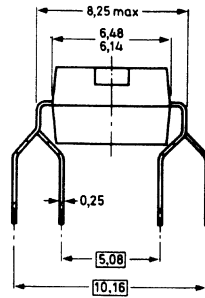
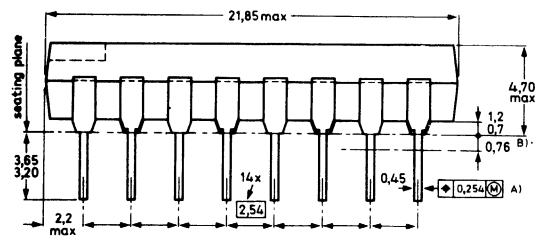


QP16/3



A) Centre-lines of all leads are within ± 0.254 mm of the nominal positions shown; in the worst case, the spacing between any two leads may deviate from nominal by ± 0.51 mm.

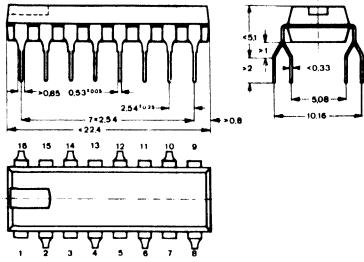
QP16/4



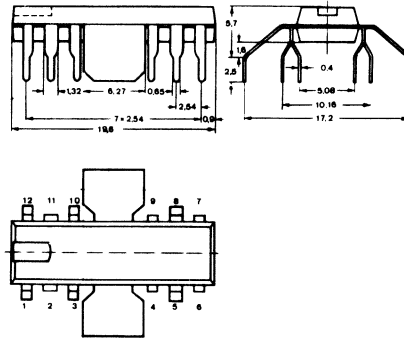
top view

- A) Centre-lines of all leads are within $\pm 0,127$ mm of the nominal positions shown; in the worst case, the spacing between any two leads may deviate from nominal by $\pm 0,254$ mm.
- B) Lead spacing tolerances apply from seating plane to the line indicated.

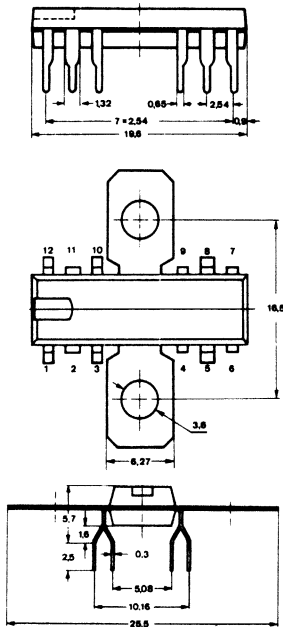
QP16/6



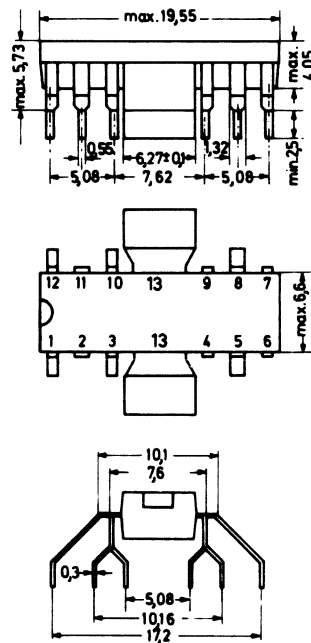
RP 12/1



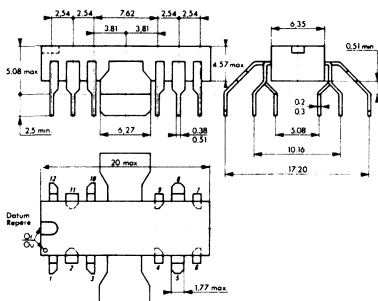
RP12/2



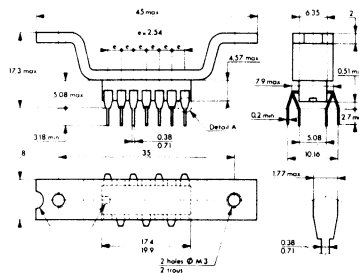
RP12/4



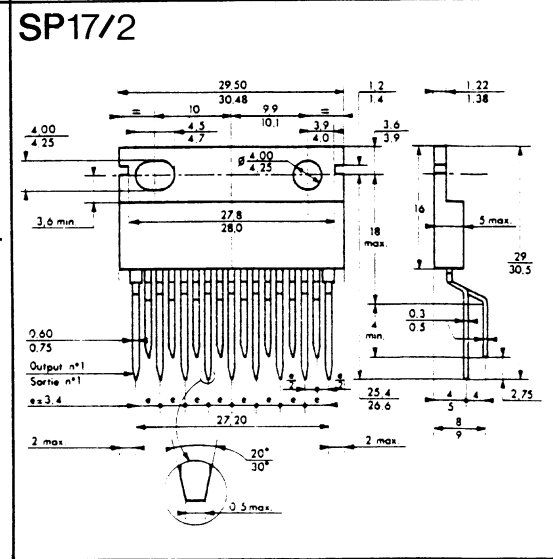
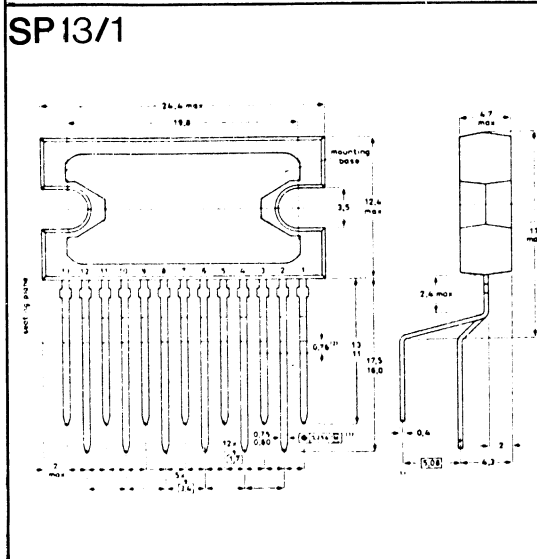
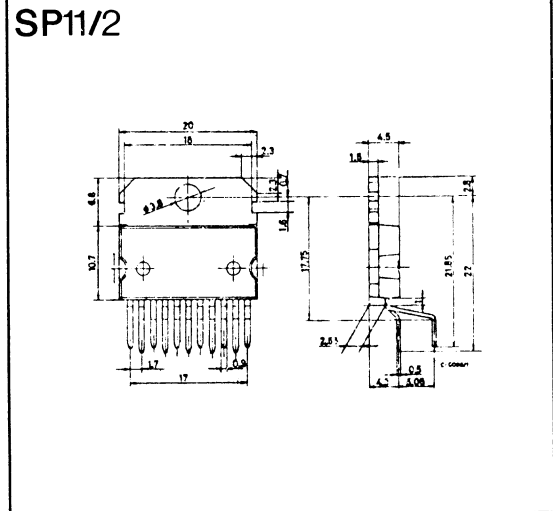
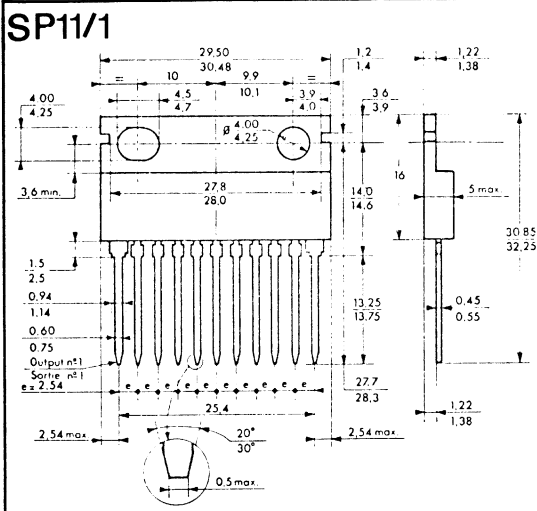
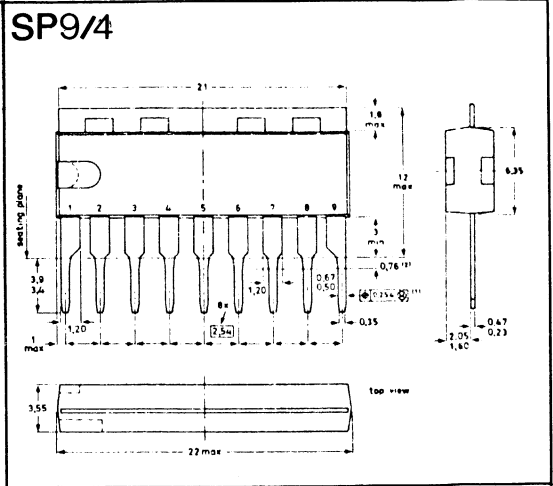
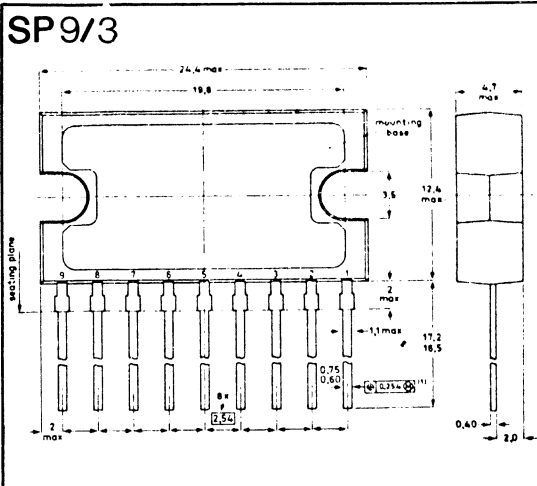
RP12/5

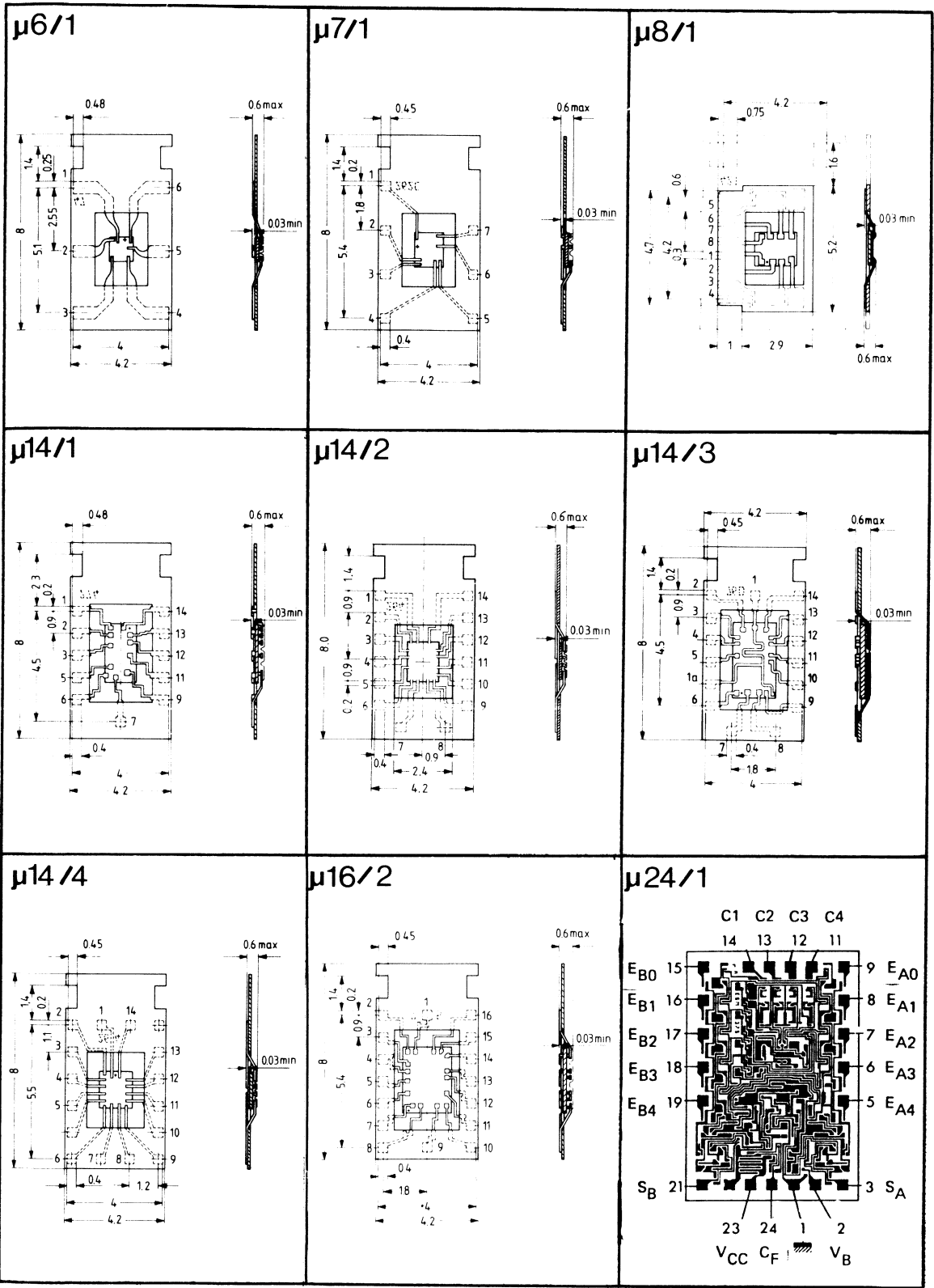


RP 14/1



OUTLINES - DESSINS D'ENCOMBREMENTS - GEHAUSEABMESSUNGEN





ADDRESSES OF SUPPLIERS

ADRESSES DES FOURNISSEURS

ADRESSEN DER LIEFERANTEN

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

FERR

GREAT BRITAIN

FERRANTI ELECTRONICS Ltd
Fields New Road,
GB - CHADDERTON, OLDHAM (Lancashire)
Tel 061 624 0515 ; Tlx 668038

GERMANY

FERRANTI GmbH
Widenmayer Strasse, 5
D - 8000 MÜNCHEN 22
Tel (089) 293871 ; Tlx 523980

HITJ

GERMANY

HITACHI Ltd (DÜSSELDORF Office)
Immermannstrasse, 15
D - 4000 DÜSSELDORF
Tel (0211)35 30 73 ; Tlx 8587385

JAPAN

HITACHI Ltd
Semiconductor & Integrated Circuits Div.
1450 Josuihon-cho, Kodaira-Chi
TOKYO
Tel 0423(23)2111 ; Tlx 2832555

ITT

FRANCE

ITT Composants et Instruments
Division Semiconducteurs
INTERMETALL
157, rue des Blains
F - 92220 BAGNEUX
Tél (1) 5478181 ; Tlx 260712

GERMANY

INTERMETALL
Halbleiterwerk der
Deutsche ITT Industries GmbH
Postfach 840
D - 7800 FREIBURG
Tel (0761) 5170 ; Tlx (07) 72 715

ITALY

ITT Standard,
Via XXV Aprile
I - 20097 S. DONATO MILANESE
Tel (2) 5174240 ; Tlx 311351

GREAT BRITAIN

ITT SEMICONDUCTORS
Maidstone Road
Footscray
GB - SIDCUP DA 14 5HT, Kent
Tel (01)300 333 ; Tlx 21836

MBLE

BELGIUM

M.B.L.E. s.a.
7, rue du Pavillon
B - 1030 BRUXELLES
Tél (02) 242 74 00; Tlx 61 511

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

MTLA

FRANCE

MOTOROLA SEMICONDUCTEURS S.A.
CENTRE ELECTRONIQUE DE TOULOUSE
Avenue du Général Eisenhower
Le Mirail
B.P. 3411
F - 31023 TOULOUSE

Tél (61) 41.11.88 ; Tlx 531 771

SWITZERLAND

MOTOROLA SEMICONDUCTOR PRODUCTS Inc.
European Operations, Headquarters,
Chemin de la Voie Creuse, 16
P.O. Box 8
CH - 1211 GENEVE-MONTBRILLANT 20

Tel (022) 99 11 11 ; Tlx 23905

MULL

MULLARD Ltd
Mullard House
Torrington Place
GB - LONDON WC1E 7HD

Tel (01) 580 6633 ; Tlx 264341

PHIN

ARGENTINA

FAPESA I.y.c.
Av. Crovara 2550
BUENOS AIRES

Tel 652-7438/7478

AUSTRALIA

PHILIPS INDUSTRIES Ltd
Elcoma Division
Mars Road, 67-71
LANE COVE, 2066, N.S.W.

Tel 427 0888

PHIN (cont.)

AUSTRIA

OESTERREICHISCHE PHILIPS BAUELEMENTE
INDUSTRIE GmbH
Triesterstrasse 64
A - 1101 VIENNA

Tel 64 55 11

BELGIUM

M.B.L.E. s.a.
7, rue du Pavillon
B - 1030 BRUXELLES

Tél (02) 215 18 90 ; Tlx 61 511

BRAZIL

IBRAPE ELETRONICA LTDA.
Caixa Postal 7383
Av. Brigadeiro Faria Lima 1735
SAO PAULO, SP.

Tel (011) 211 2600

CANADA

PHILIPS ELECTRON DEVICES
601 Milner Ave
SCARBOROUGH ONTARIO M1B 1M8

Tel 292 - 5161

CHILE

PHILIPS CHILENA S.A.
Av. Santa Maria 0760
SANTIAGO

Tel 770038

COLOMBIA

SADAPE S.A.
P.O. Box 9805
Calle 13 N°51+39
BOGOTA D.E.I.
Tel 2600-600

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

PHIN
(cont.)

DENMARK

MINIWATT A/S
Emdrupvej 115A
DK - 2400 KOBENHAVN NV
Tel (01) 69 16 22

FINLAND

Oy PHILIPS AB
Elcoma Division
Kaivokatu 8
SF - 00100 HELSINKI 10
Tel 1 72 71

FRANCE

R.T.C.-LA RADIOTECHNIQUE-COMPELEC
130, avenue Ledru-Rollin
F - 75540 PARIS Cedex 11
Tél (1) 355 44 99 ; Tlx 680495

GERMANY

VALVO UB Bauelemente der Philips GmbH
Valvo Haus
Burchardstrasse 19
D - 2000 HAMBURG 1
Tel (040) 3296-1 ; Tlx 21540164

GREECE

PHILIPS HELLENIQUE
Elcoma Division
Av. Syngrou, 54
GR - ATHENS
Tel 921311

PHIN
(cont.)

HONG KONG

PHILIPS HONG KONG Ltd
Elcoma Div.
15F Philips Bldg
24-28 Kung Yip St.,
KWAI CHUNG
Tel K 427232

INDONESIA

P.T. PHILIPS - RALIN ELECTRONICS
Panin Bank Bldg 2nd floor
JL. Jen Sudirman
Postbox 223
JAKARTA
Tel 585286 +716131

INDIA

PEICO ELECTRONICS & ELECTR.Ltd
Ramon house
169 Backbay Reclamation
BOMBAY 400020
Tel 295144

IRELAND

PHILIPS ELECTRICAL (IRELAND) Ltd
Newstead, Clonskeagh
IRL - DUBLIN 14
Tel 69 33 55

ITALY

PHILIPS SpA
Sezione Elcoma
Piazza IV Novembre 3
I - 20124 MILANO
Tel (2) 6994

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

PHIN (cont.)

JAPAN

NIHON PHILIPS CORP.
Shuwa Shinagawa Bldg.9th floor
26-33 Takanawa 3-chome,
Minato-ku
TOKYO 108

Tel 448-5611

KOREA

PHILIPS ELECTRONICS (KOREA) Ltd
Elcoma Div., Philips House
260-199 Itaewon-dong
Yongsan-ku
C.P.O. Box 3680
SEOUL

Tel 794 4202 + 5097

MALAYSIA

PHILIPS MALAYSIA SDN. BERHAD,
Lot 2, Jalan 222, Section 14,
Petaling Jaya,
P.O.B. 2163,
KUALA LUMPUR, Selangor

Tel 77 44 11

MEXICO

ELECTRONICA S.A. de C.V.
Varsovia No. 36
MEXICO 6, D.F.

Tel 533 11 80

NETHERLANDS

PHILIPS NEDERLAND B.V.
Afd. Elonco,
Boschdijk 525
NL 5600 PB EINDHOVEN

Tel 040-793333

PHIN (cont.)

NEW ZEALAND

PHILIPS ELECTRICAL INDUST. OF NEW ZEALAND Ltd
P.O. Box 41-021, St. Lukes
AUCKLAND

Tel 867-110

NORWAY

ELECTRONICA A.S.
Sorkedalsveien 6
P.O. Box 5040
Majorstuen
OSLO 3

Tel 463890

PERU

CADESA
Rocca de Vergallo 247
Apartado 5612
LIMA 17

Tel 619287

PHILIPPINES

PHILIPS INDUSTRIAL DEV. INC.
Makati Comm. Centre
MAKATI RIZAL 3116

Tel 86-89-51 to 59

PORTUGAL

PHILIPS PORTUGUESA S.A.R.L.
Av. Eng. Duharte Pacheco, 6
P - LISBOA 1

Tel 68 31 21

SINGAPORE

PHILIPS SINGAPORE PRIVATE Ltd.
Elcoma Div.
Lorong, 1 Toa Payoh
P.O. Box 340
SINGAPORE 12
Tel 2538811

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

PHIN (cont.)

SOUTH AFRICA

EDAC (Pty.) Ltd
3rd floor Rainerhouse
Upper Railway RD+OVE St.
New Doornfontein
JOHANNESBURG 2001

Te1 614 2362/9

SPAIN

MINIWATT S.A.
Balmes 22
BARCELONA 7

Te1 3016312

SWEDEN

A.B. ELCOMA
Livingövägen 50
S - 11584 STOCKHOLM 27

Te1 08/67 97 80

SWITZERLAND

PHILIPS A.G.
Elcoma Dept.
Allmendstrasse 140-142
CH - 8027 ZUERICH

Te1 01/432211

TAIWAN

PHILIPS TAIWAN Ltd
3rd Floor San Min Bldg.
57-1, Chung San N. Rd.
Section 2
P.O. Box 22978
TAIPEI

Te1 5631717

PHIN (cont.)

THAILAND

PHILIPS ELECTRICAL CO. OF THAILAND Ltd
283 Silom Road,
P.O. Box 961,
BANGKOK

Te1 233-6330-9

TURKEY

TUERK PHILIPS TICARET A.S.
Emet Dept.
Inonu Cad No. 78-80
ISTANBUL

Te1. 435910

UNITED KINGDOM

MULLARD Ltd
Mullard House
Torrington Place

GB - LONDON WC1E 7HD

Te1 580 66 33

URUGUAY

LUZILECTRON S.A.
Rondeau 1567, piso 5
MONTEVIDEO

Te1 9 43 21

U.S.A.

AMPEREX SALES CORP.
Providence Pike
SLATERSVILLE
R.I. 02876

Te1 (401) 762-9000

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

PHIN

VENEZUELA

IND. VENEZOLANAS PHILIPS S.A.
Elcoma Dept.
Av. Principal De Los Ruices
Edif. Centro Colgate Apdo 1167
CARACAS

Tel 2392222

PLSB

PLESSEY SEMICONDUCTORS
Crowdy's Hill Estate,
Kembrey Street
GB - SWINDON (Wiltshire SN2 6BA)

Tel (0793) 694994 ; Tlx 449637

RTC

FRANCE

RTC-LA RADIOTECHNIQUE COMPELEC
130, avenue Ledru-Rollin
F 75540 PARIS Cedex 11

Tél 355 44 99 ; Tlx 680495

SGAI

BENELUX

SGS-ATES COMPONENTI ELETTRONICI
Benelux Sales Office
Avenue Winston Churchill, 122
B - 1180 BRUXELLES

Tél (02) 343 24 39 ; Tlx 24149

DENMARK

SGS-ATES SCANDINAVIA AB
Sales Office
Herlev Torv 4
DK - 2730 HERLEV

Tel 02-948533 ; Tlx 35411

SGAI (cont.)

FINLAND

SGS-ATES Scandinavia AB
Käntöpiiri 2
SF 02210 ESBO 21

Tel 90-881395/6 ; Tlx 123643

FRANCE

SGS-ATES FRANCE S.A.
Résidence "Le Palatino"
17, avenue de Choisy
F - 75643 PARIS Cedex 13

Tél (1) 584 2730 ; Tlx 250938

ITALY

(International Headquarters)
SGS-ATES COMPONENTI ELETTRONICI SpA
Via C. Olivetti, 2
I - 20041 AGRATE BRIANZA

Tel 039-65551 ; Tlx 330131 - 330141

GERMANY

SGS-ATES DEUTSCHLAND
HALBLEITER-BAUELEMENTE GmbH
Haidling 17
D 8018 GRAFING BEI MUENCHEN

Tel 08092-691 ; Tlx 05 27378

GREAT BRITAIN

SGS-ATES UNITED KINGDOM Ltd
Planar House, Walton Street
GB - AYLESBURY, (Bucks.)

Tel 296-5977 ; Tlx 041-83245

NORWAY

SGS-ATES SCANDINAVIA AB
Sales Office
Haavard Martinsens Vei 19
N - OSLO 4

Tel 10 60 50 ; Tlx 11796

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

SGAI
(cont.)

SINGAPORE

SGS-ATES Singapore (Pte)Ltd
Lorong 4 & 6 - Toa Payoh
SINGAPORE 1231

Tel 253411 ; Tlx ESGIES RS 21412

SWEDEN

SGS-ATES SCANDINAVIA AB
Box 144
S - 19501 MARSTA

Tel 40120 ; Tlx 10932

U.S.A

SGS-ATES SEMICONDUCTOR CORPORATION
240, Bear Hill Road
USA - WALTHAM, MA 02154

Tel (617)890-6688 ; Tlx 923495

SIE

AUSTRIA

SIEMENS AKTIENGESELLSCHAFT ÖSTERREICH
Apostelgasse 12
(A-1031 Wien, P.O.B. 326)
A - 1030 WIEN

Tel (0222) 72930 ; Tlx 11866

BELGIUM

SIEMENS S.A.
Chaussée de Charleroi, 116
B - 1060 BRUXELLES

Tél (02) 537 31 00 ; Tlx 21347, 23587

DENMARK

SIEMENS Aktieselskab
Borupvang 3
DK - 2750 BALLERUP

Tel (01) 656565 ; Tlx 35313

SIE
(cont.)

FINLAND

SUOMEN SIEMENS Osakeyhtiö
Mikonkatu 8, (Postilokero 8)
SF - 00101 HELSINKI 10

Tel 16261 ; Tlx 12465

FRANCE

SIEMENS S.A.
39, Boulevard Ornano
F - 93200 SAINT-DENIS

Tél (1) 820 61 20 ; Tlx 620853

GERMANY

SIEMENS A.G.
Unternehmensbereich Bauelemente
Balanstrasse 73
D - 8000 MÜNCHEN 80

Tel (089) 4144-1 ; Tlx 522961

GREAT BRITAIN

SIEMENS Ltd, Siemens House
Windmill Road
GB - SUNBURY-ON-THAMES
(Middlesex TW16 7HS)

Tel (01) 85691 ; Tlx 8951091

GREECE

SIEMENS HELLAS E.A.E.
Voulis 7, (P.O.B. 601)
GR - ATHINE 125

Tel (6021) 3293-1 ; Tlx 216291, 216292

IRELAND

SIEMENS Ltd
8, Raglan Road
IRL - DUBLIN 4

Tel 68 47 27 ; Tlx 5341

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

**SIE
(cont.)**

ITALY

SIEMENS ELETTRA SpA
Via Fabio Filzi, 29
(Casella Postale 4183)
I - 20124 MILANO

Tel (02) 6992 ; Tlx 36261

LUXEMBURG

SIEMENS S.A.
17, Rue Glesener, (B.P. 1701)
L - LUXEMBOURG

Tel 49711-1 ; Tlx 3430

NETHERLANDS

SIEMENS NEDERLAND N.V.
Wilhelmina van Pruisenweg, 26
Postbus 16068
NL - 2595 AN DEN HAAG

Tel (070) 782782 ; Tlx 31373

NORWAY

SIEMENS Aksjeselskap
Ostre Aker Vei 90,
Postboks 10, Veitvet
N - OSLO 5

Tel (02) 15 30 90 ; Tlx 18477

PORTUGAL

SIEMENS S.A.R.L.
Avenida Almirante Reis, 65
(Apartado 1380)
P - LISBOA 1

Tel 538805 ; Tlx 12563, 16743

SPAIN

SIEMENS S.A.
Orense 2, (Apartado 155)
E - MADRID 20

Tel (01)4552500-4556500 ; Tlx 27769

**SIE
(cont.)**

SWEDEN

SIEMENS Aktiebolag
Norra Stationsgatan 63-65
(Fack, S-10435 Stockholm 23)
S - STOCKHOLM

Tel (08)229680 ; Tlx 19880, 19881

SWITZERLAND

SIEMENS-Albis AG
Albisriederstrasse 245
CH - 8047 ZÜRICH

Tel (01)2473111 ; Tlx 54554

SPRE

SPRAGUE EUROPE
Chemin du Levant, 13
F - 01210 FERNEY-VOLTAIRE

Tel (50)415353 ; Tlx 90310F

TFKH

AUSTRIA

Oesterreichische AEG-TELEFUNKEN GmbH
Brünnerstrasse, 52
A - 1211 WIEN

Tel 38 15 11 - 38 36 01 ; Tlx 74889

BELGIUM

Société Anonyme Belge AEG-TELEFUNKEN
Rue Souveraine 40
B - 1050 BRUXELLES

Tél (02) 513 39 70 ; Tlx 21 359
(02) 512 79 40

DENMARK

AEG DANSK
Elektricitets Aktieselskab
Roskildevej, 8-10
DK - 2620 ALBERTSLUND

Tel 64 85 22 ; Tlx 33122

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

TFKH (cont.)

FINLAND

SÄHKÖLIIKKEIDEN OY
P.O.B. 88
SF - 01301 VANTAA 30

Tel 8381 ; Tlx 12431

FRANCE

AEG-TELEFUNKEN FRANCE S.A.
Départements Composants Electroniques
6, bd du Général-Leclerc
Bureau 612
F - 92115 CLICHY

Tél (1) 739 33 10 ; Tlx 620827

GERMANY

AEG-TELEFUNKEN
Serienprodukte
Geschäftsbereich Halbleiter
Export P.O.B. 1109
D - 7100 HEILBRONN

Tel 8821 ; Tlx 728746

GREAT BRITAIN

AEG-TELEFUNKEN (U.K.) Ltd
Bath Road
GB - SLOUGH SL1 4AW, (Berk.)

Tel 87 21 01 ; Tlx 847541

ITALY

AEG-TELEFUNKEN Società Italiana per Azioni
Viale Brianza, 20
Casella Postale 47
I - 20092 CINISELLO BALSAMO/MILANO

Tel (2) 927 98 ; Tlx 31473

NETHERLANDS

AEG-TELEFUNKEN Nederland N.V.
Postbus 1816
Aletta Jacobslaan 1-7
NL - 1000 BV AMSTERDAM

Tel 5116333 ; Tlx 11234

TFKH (cont.)

SPANIEN

AEG Iberica de Electricidad S.A.
General Mola 112-114
Apartado 235
E - MADRID 2

Tel 2627600 ; Tlx 27635

SWEDEN

SATTCO AB
Salvågen 10
S - 17191 SOLNA

Tel 830280 ; Tlx 11588

SWITZERLAND

ELEKTRON AG
Riedhofstrasse 11
CH - 8804 AU ZH

Tel 751722 ; Tlx 75755

TURKEY

SERVER ATAMAN
Istiklal Caddesi, 378/4
P.K. Beyoğlu 366
BEYOĞLU, ISTANBUL

Tel 44 21 68

THCF

FRANCE

THOMSON-EFCIS
Division Circuits Intégrés
45, avenue de l'Europe

F - 78140 VELIZY-VILLACOUBLAY

Tél (3) 946 97 19 ; Tlx 698866

THOMSON-CSF
Département Microélectronique hyperfréquence
Domaine de Corbeville
F - 91400 ORSAY

Tél (1) 907 77 33 ; Tlx 204780

Addresses of suppliers

Adresses des fournisseurs - Adressen der Lieferanten

**THCF
(cont.)**

GERMANY

THOMSON-CSF GmbH
Fallstrasse 42
Postfach 701909
D - 8000 MÜNCHEN 70

Te1 (089) 7675-1 ; T1x 522916

UNITED KINGDOM

THOMSON-CSF UK Ltd
Components and Material Ltd
Ringway House
Bell Road
GB - DANESHILL BASINGSTOKE (Hants RG24-0QG)

Te1 0256-29155 ; T1x 858865

ITALY

THOMSON-CSF Componenti
Via Melchiorre Gioa, 72
I - 20125 MILANO

Te1 (2) 6884141 ; T1x 36301

**THCF
(cont.)**

SPAIN

THOMSON-CSF
Componentes y Tubos
Calle Almagro N°3
E - MADRID 4

Te1 (1) 4196691/4196551 ; T1x 46033

VAD

GERMANY

VALVO
Valvo Haus
Burchardstrasse 19
D - 2000 HAMBURG 1

Te1 (040) 3296-1 ; T1x 21540164
21540156

