

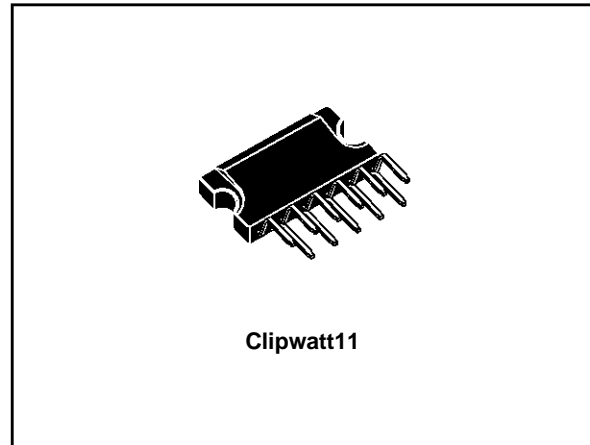
8W AMPLIFIER WITH MUTING

PRODUCT PREVIEW

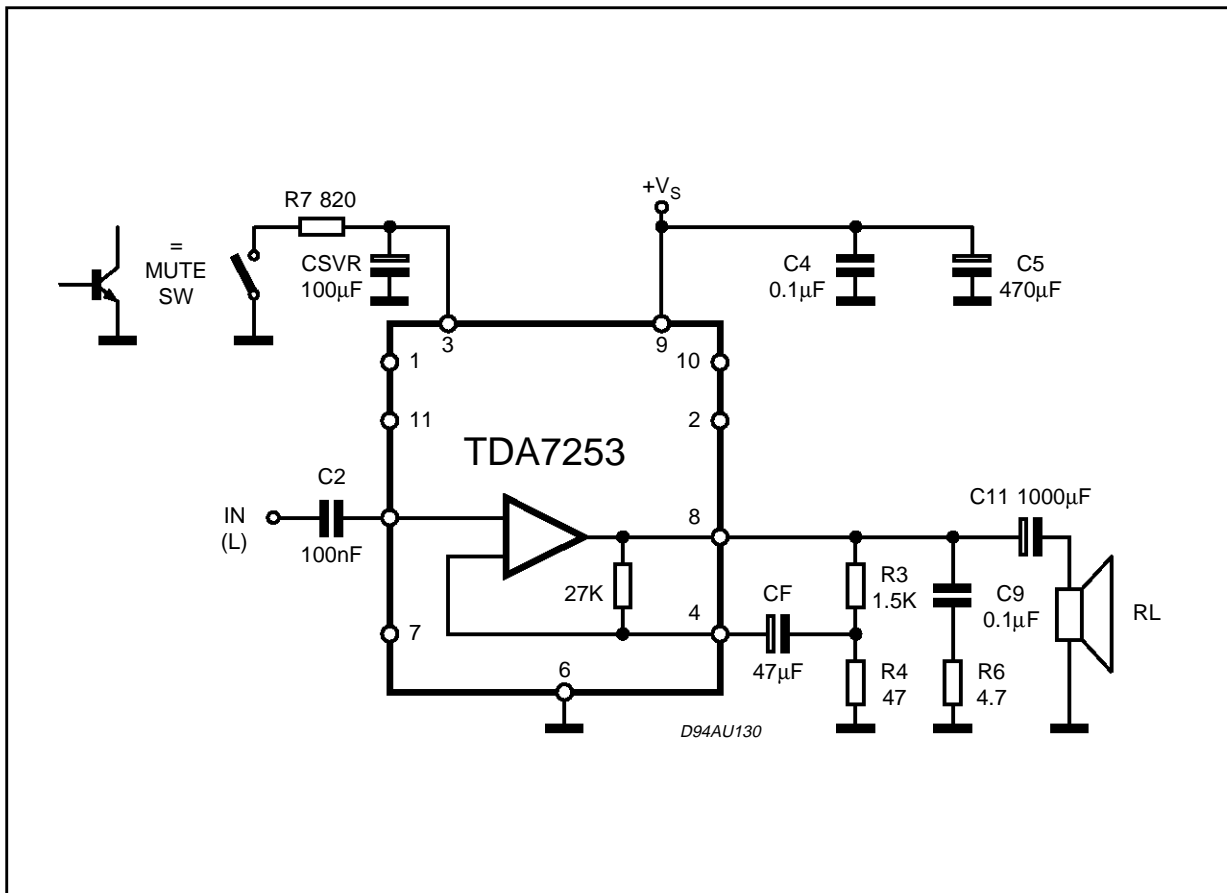
- WIDE SUPPLY VOLTAGE RANGE
- 8W @ $V_S=26V$, $R_L = 8\Omega$, THD=10%
- MUTE FACILITY (POP FREE) WITH LOW CONSUMPTION
- AC SHORT CIRCUIT PROTECTION
- THERMAL OVERLOAD PROTECTION (150°C)

DESCRIPTION

The TDA7253 is class AB audio power amplifier assembled in the new Clipwatt package.



APPLICATION CIRCUIT



TDA7253

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_S	Supply Voltage	35	V
I_O	Output Peak Current (repetitive $f > 20\text{Hz}$)	2.5	A
I_O	Output Peak Current (non repetitive, $t = 100\mu\text{s}$)	3.5	A
P_{tot}	Total Power Dissipation ($T_{case} = 70^\circ\text{C}$)	25	W
T_{op}	Operating Temperature Range	0 to 70	$^\circ\text{C}$
T_{stg, T_j}	Storage & Junction Temperature	-40 to 150	$^\circ\text{C}$

PIN CONNECTION (Top view)

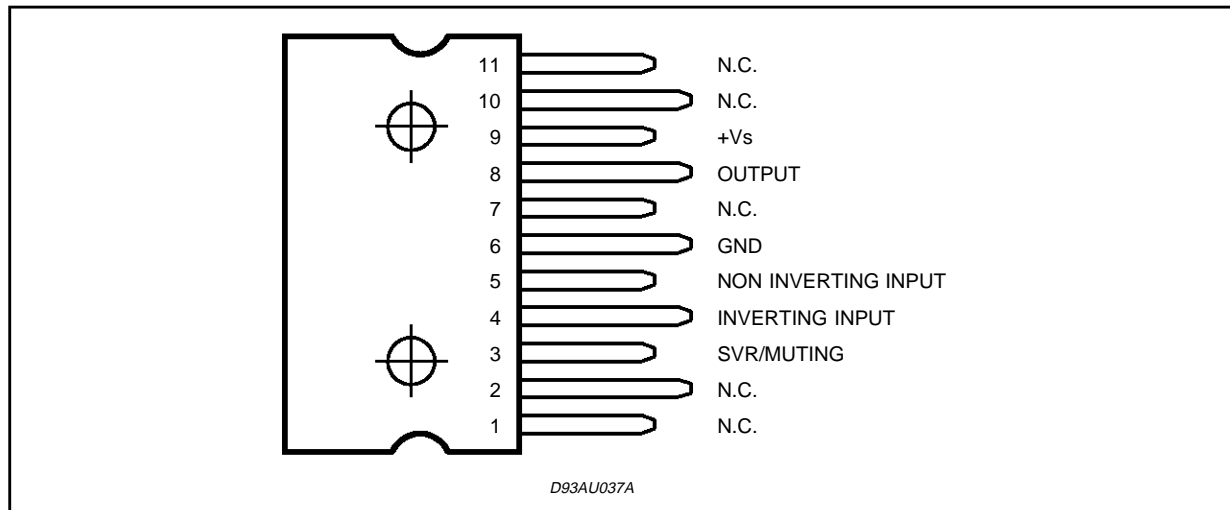
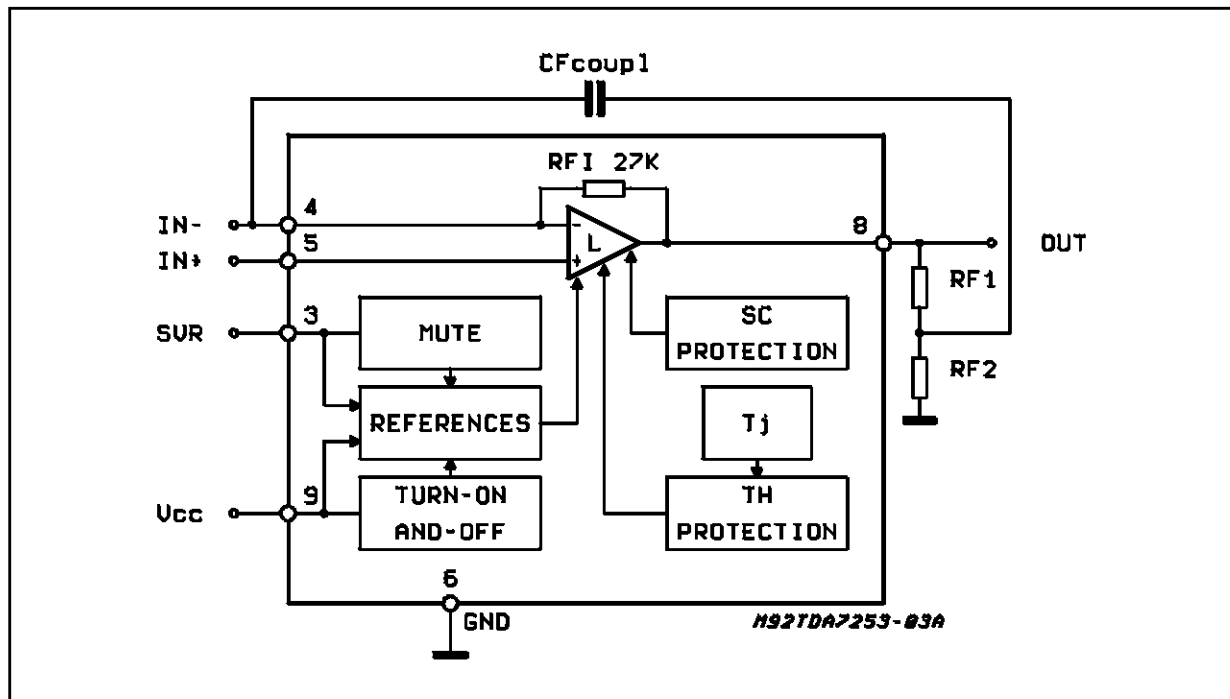


Figure 1: Application Circuit



THERMAL DATA

Symbol	Parameter	Value	Unit
$R_{th\ j-case}$	Thermal resistance junction to case	Max 3	°C/W

ELECTRICAL CHARACTERISTICS (Refer to the test and application circuit, $V_S = 26V$; $R_L = 8\Omega$; $G_v = 30dB$; $f = 1KHz$; $T_{amb} = 25^\circ C$ unless otherwise specified.)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V_S	Supply Voltage		10		32	V
V_O	Quiescent Output Voltage			12.5		V
I_q	Total Quiescent Current			40		mA
P_O	Output Power	$d = 10\%$ $d = 1\%$	8	10 8		W W
d	Total Harmonic Distortion	$P_O = 1W$		0.03		%
R_I	Input Resistance		100	200		K Ω
f_L	Low Frequency Roll-off (-3dB)			40		Hz
f_H	High Frequency Roll-off (-3dB)			80		KHz
e_N	Total Input Noise Voltage	A Curve; $R_S = 10K\Omega$ $f = 22Hz$ to $22KHz$; $R_S = 10K\Omega$		2 2.5	10	mV μV
SVR	Supply Voltage Rejection	$R_S = 10K\Omega$; $f = 100Hz$; $V_r = 0.5V$		60		dB
V_{T_MUTE}	Mute Threshold			0.8		V
V_{T_PLAY}	Play Threshold		5			V
A_M	Mute Attenuation		80	100		dB
I_{q_MUTE}	Quiescent Current Mute			7	10	mA

Note: to avoid pop-on noise $\frac{C_F}{C_{SVR}} \leq 1$

Figure 1: Output Power vs. Supply Voltage

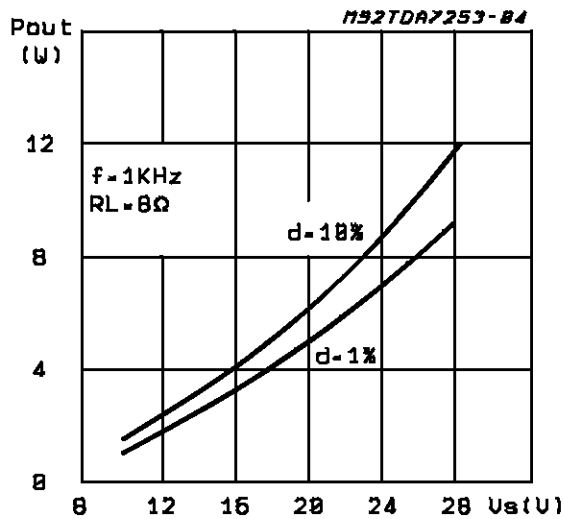
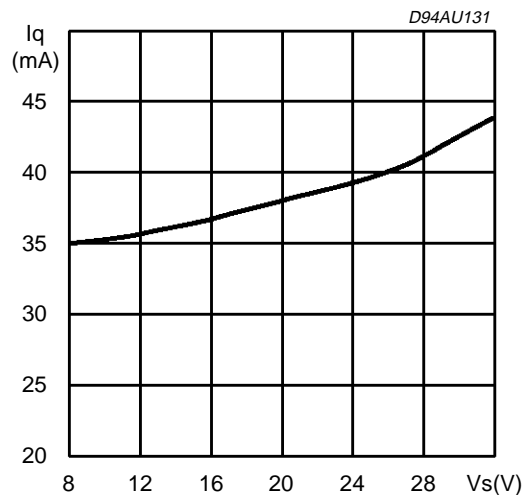
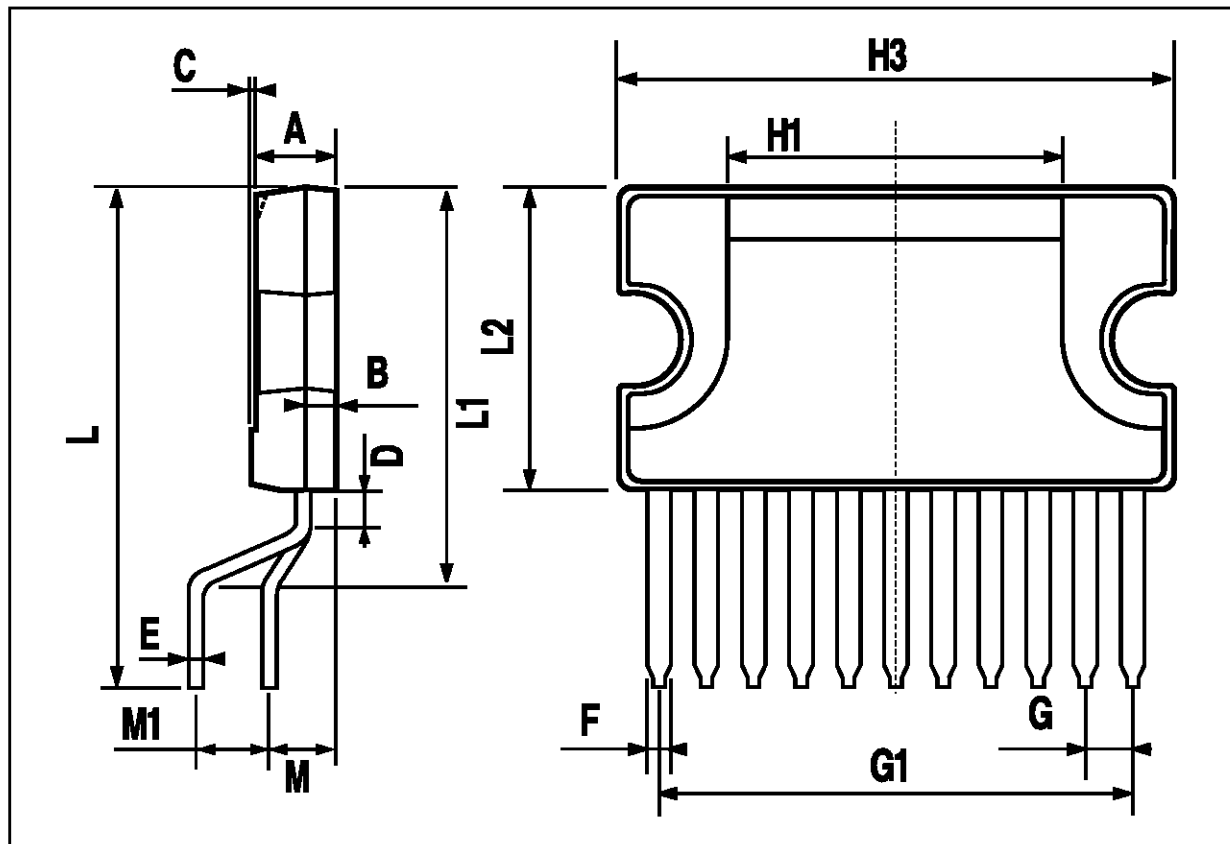


Figure 2: Quiescent Current vs. Supply Voltage



CLIPWATT11 PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A			3.10			0.122
B			1.10			0.04
C		0.15			0.006	
D		1.50			0.059	
E		0.52			0.02	
F		0.80			0.03	
G		1.70			0.066	
G1		17.00			0.66	
H1		12.00			0.48	
H3		20.00			0.79	
L		17.90			0.70	
L1		14.40			0.57	
L2		11.00			0.43	
M		2.54			0.1	
M1		2.54			0.1	



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