

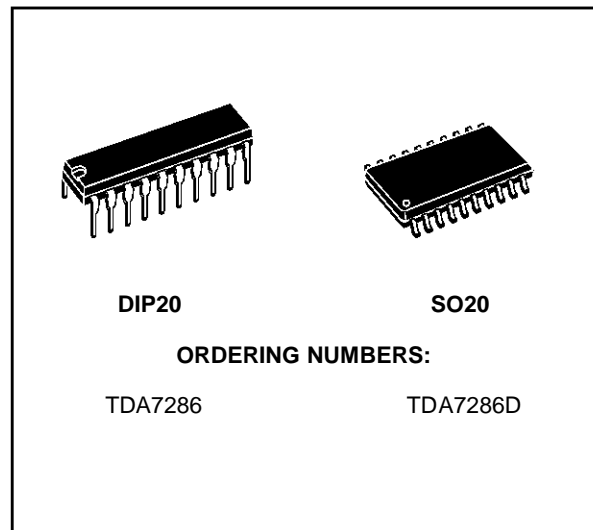
**SINGLE CHIP PREAMPLIFIER FOR DOUBLE DECK RADIO CASSETTE RECORDER**

PRODUCT PREVIEW

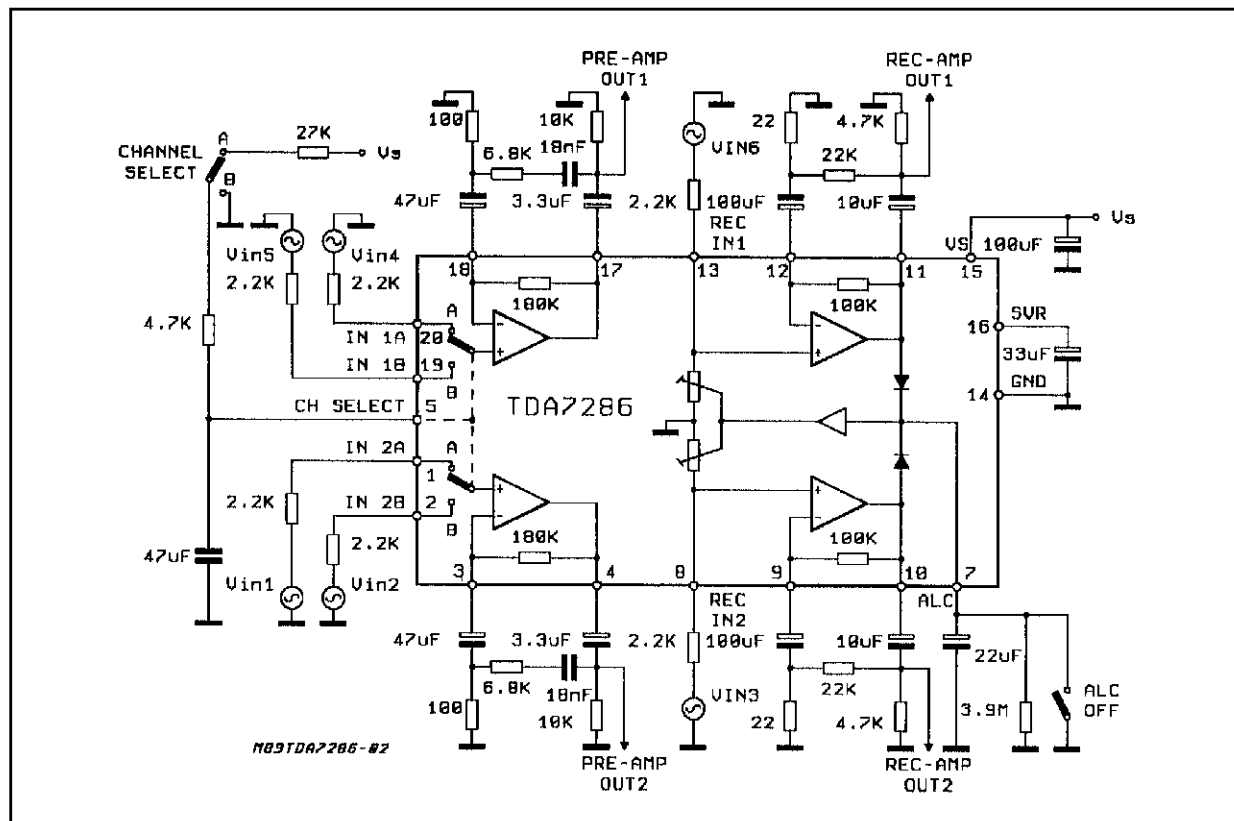
- HIGH OPEN-LOOP GAIN (80dB)
- VERY LOW INPUT NOISE
- LOW TURN ON/OFF POP
- LOW SUPPLY CURRENT
- PLAYBACK AMPLIFIER WITH HEAD INPUT SWITCH
- RECORDING AMPLIFIER WITH BUILT-IN ALC
- ALC TIME CONSTANT PIN CAN BE USED AS ALC SWITCH
- GOOD SUPPLY RIPPLE REJECTION

**DESCRIPTION**

The TDA7286 is a monolithic integrated circuit in DIP20 and SO20 packages designed for 6V, 9V and 12V AC/DC double deck cassette applications.



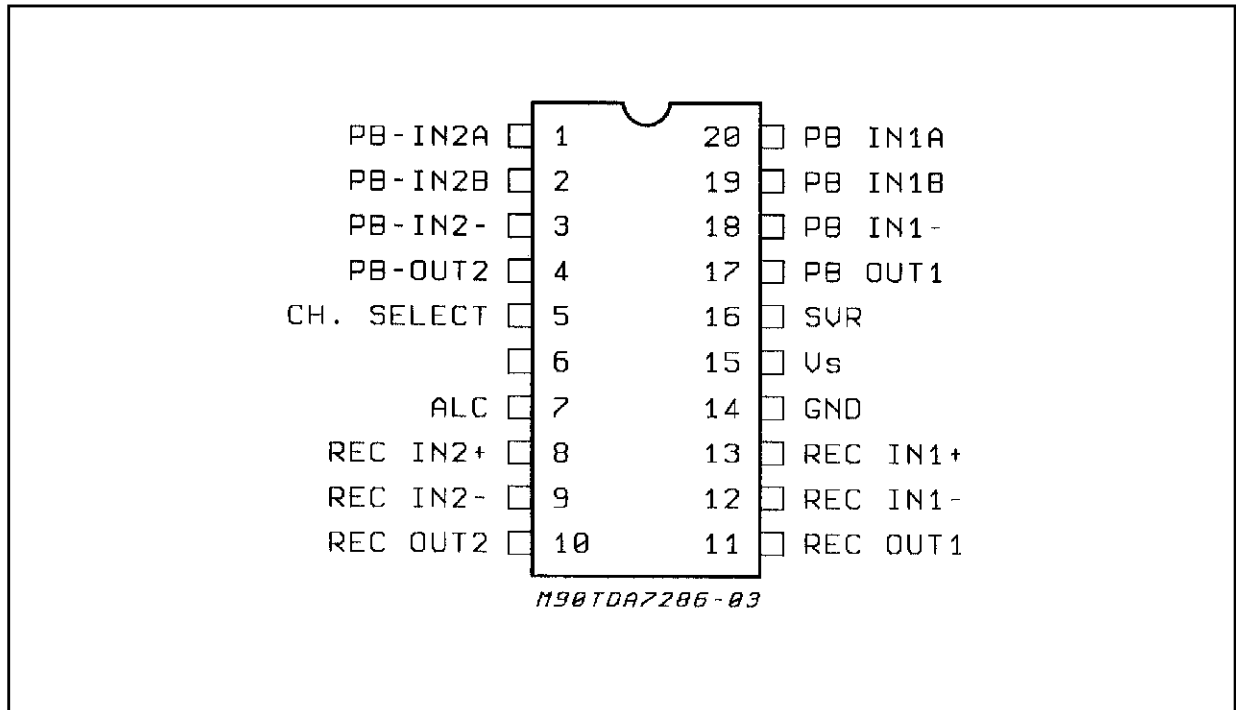
**BLOCK DIAGRAM**



**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value	Unit
V <sub>S</sub>	Supply Voltage	14	V
V <sub>IN</sub>	Input DC Voltage	-0.4 to 0.5	V
T <sub>op</sub>	Operating Temperature	-20 to 70	°C
T <sub>stg</sub> , T <sub>j</sub>	Storage & Junction Temperature	-40 to 150	°C

**PIN CONNECTION (Top view)**



**THERMAL DATA**

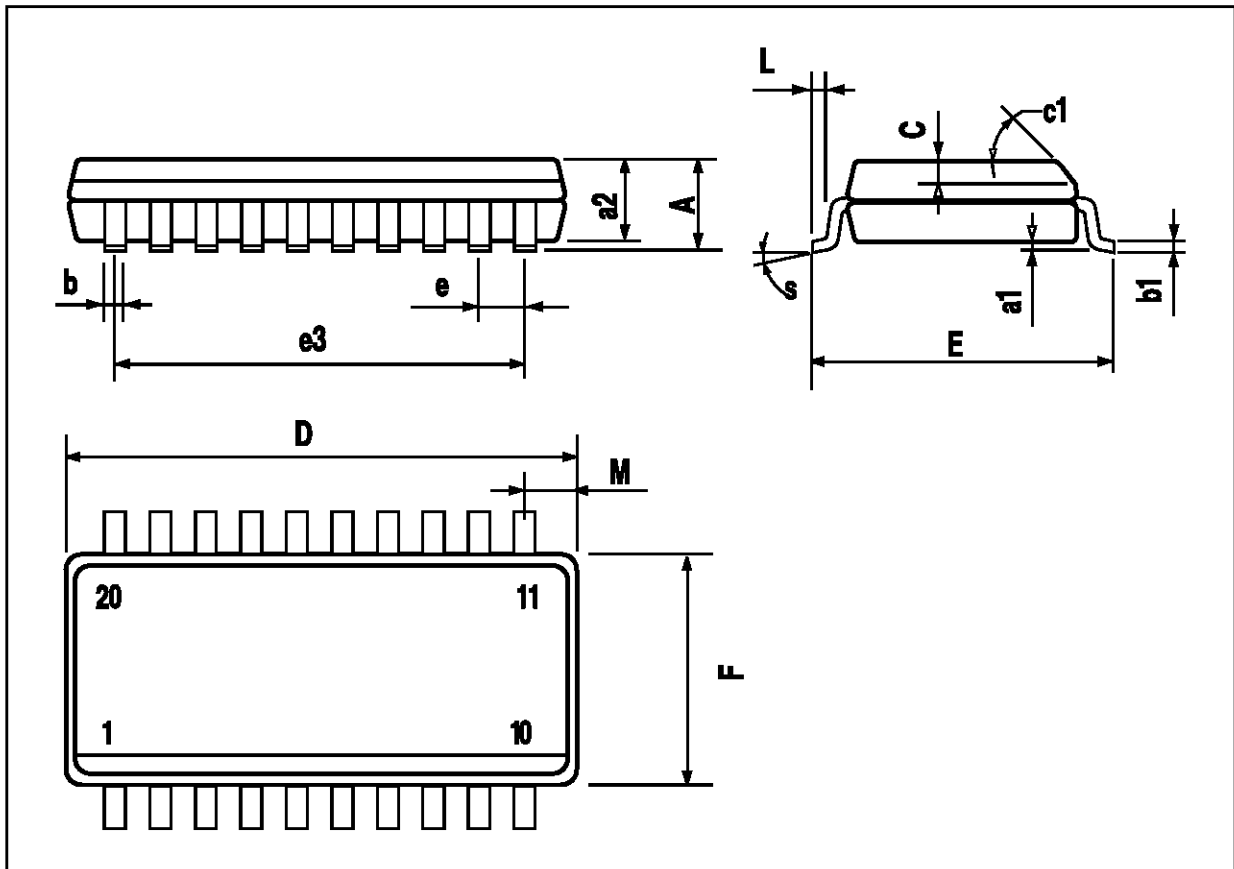
Symbol	Parameter		DIP20	SO20	Unit
R <sub>th j-amb</sub>	Thermal Resistance Junction to Ambient	Max.	100	200	°C/W

**ELECTRICAL CHARACTERISTICS** ( $V_S = 6V$ ,  $T_{amb} = 25^\circ C$ ;  $f = 1KHz$ ;  $R_L = 4.7k\Omega$ ;  $R_g = 2.2k\Omega$ , unless otherwise specified.)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$V_S$	Supply Voltage		4		12	V
$I_d$	Quiescent Current			7	15	mA
<b>PLAYBACK AMPLIFIER</b>						
$G_{VO}$	Open Loop Gain			80		dB
$V_{CD}$	Output DC Voltage		1.2	1.5	1.7	V
$V_O$	Output AC Voltage	THD = 1%	700	950		mVrms
SVR	Supply Voltage Rejection	$f = 100Hz$	35	45		dB
$C_T$	Cross Talk			60		dB
$E_N$	Total Output Noise	$R_g = 0$ , BW = 22 to 22kHz		300		$\mu V$
$R_E$	Internal Feedback Res			180		k $\Omega$
<b>RECORDING AMPLIFIER</b>						
$G_{VO}$	Open Loop Gain			80		dB
$R_i$	Input resistance		30	50	70	k $\Omega$
$V_{DC}$	Output DC Voltage		2.0	2.4	2.8	V
$V_O$	Output AC Voltage	THD = 1% ALC = OFF ALC = ON	1 0.75	1.4 1	1.25	Vrms Vrms
THD	Total Harmonic Distortion	$V_O = 0.5V_{rms}$ ; ALC = OFF		0.2	0.5	%
	ALC Range	$\Delta V_O = 3dB$		48		dB
CB	Channel Balance	ALC = ON		0	2	dB
SVR	Supply Voltage Rejection	$f = 100Hz$	28	32		dB
$C_T$	Cross Talk	$f = 1KHz$		60		dB
<b>HEAD SELECT INPUT</b>						
	Input LOW Level	chB selected			0.6	V
	Input HIGH level	chA selected	1.4			V

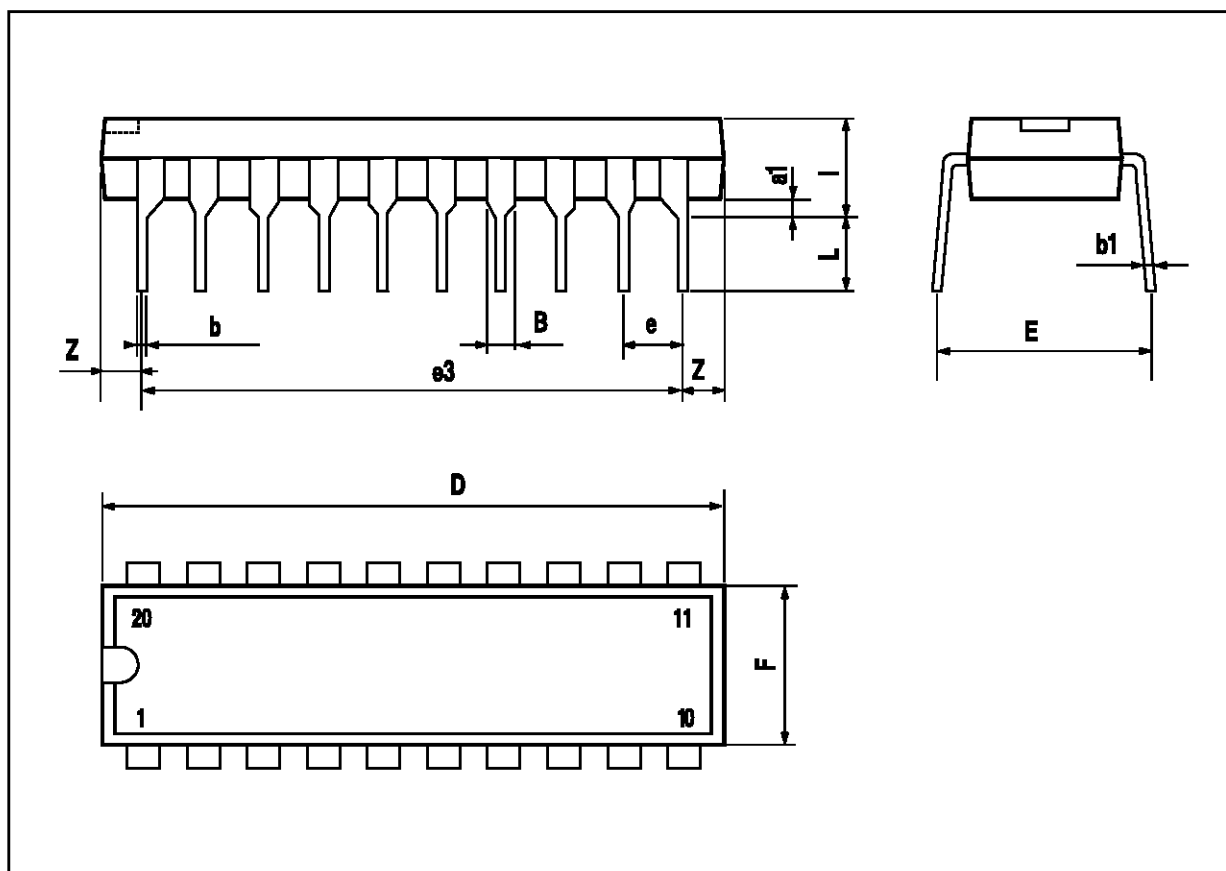
SO20 PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A			2.65			0.104
a1	0.1		0.3	0.004		0.012
a2			2.45			0.096
b	0.35		0.49	0.014		0.019
b1	0.23		0.32	0.009		0.013
C		0.5			0.020	
c1	45 (typ.)					
D	12.6		13.0	0.496		0.512
E	10		10.65	0.394		0.419
e		1.27			0.050	
e3		11.43			0.450	
F	7.4		7.6	0.291		0.299
L	0.5		1.27	0.020		0.050
M			0.75			0.030
S	8 (max.)					



## DIP20 PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
a1	0.254			0.010		
B	1.39		1.65	0.055		0.065
b		0.45			0.018	
b1		0.25			0.010	
D			25.4			1.000
E		8.5			0.335	
e		2.54			0.100	
e3		22.86			0.900	
F			7.1			0.280
I			3.93			0.155
L		3.3			0.130	
Z			1.34			0.053



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