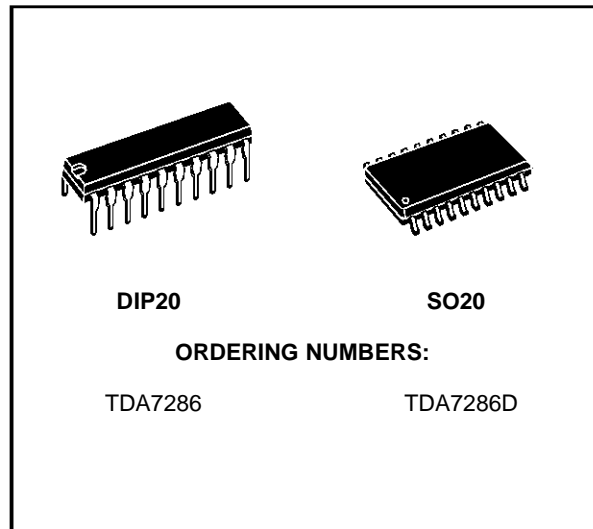


## SINGLE CHIP PREAMPLIFIER FOR DOUBLE DECK RADIO CASSETTE RECORDER

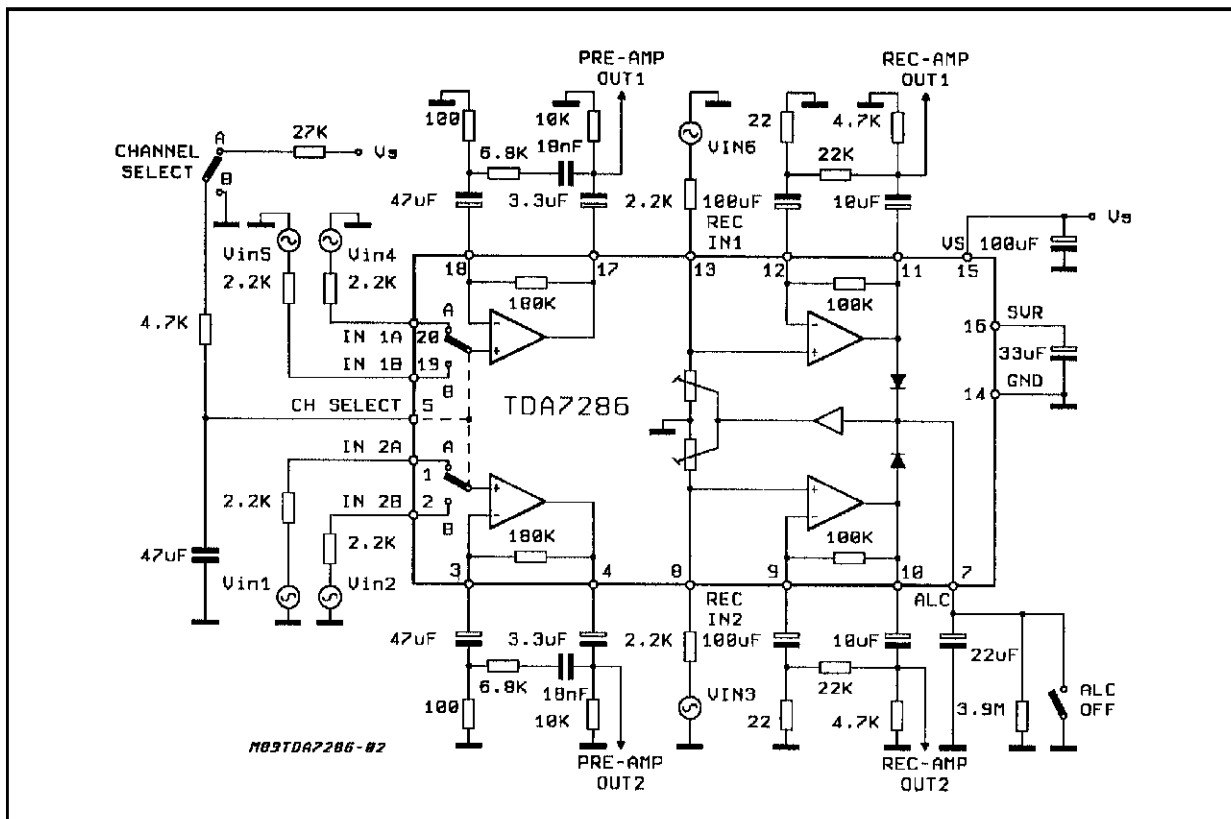
- HIGH OPEN-LOOP GAIN (80dB)
- VERY LOW INPUT NOISE
- LOW TURN ON/OFF POP
- LOW SUPPLY CURRENT
- PLAYBACK AMPLIFIER WITH HEAD INPUT SWITCH
- RECORDING AMPLIFIER WITH BUILT-IN ALC
- ALC TIME CONSTANT PIN CAN BE USED AS ALC SWITCH
- GOOD SUPPLY RIPPLE REJECTION

### 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

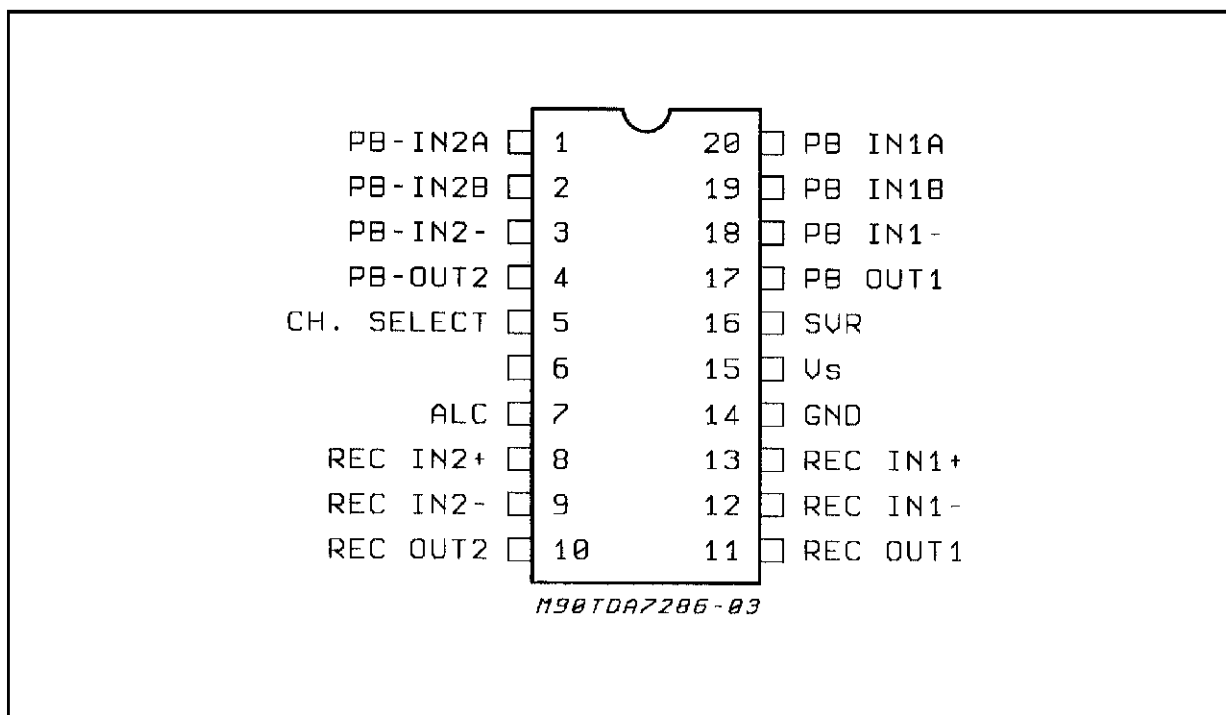


# TDA7286

## ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$V_S$	Supply Voltage	14	V
$V_{IN}$	Input DC Voltage	-0.4 to 0.5	V
$T_{op}$	Operating Temperature	-20 to 70	°C
$T_{stg}, T_j$	Storage & Junction Temperature	-40 to 150	°C

## PIN CONNECTION (Top view)



## THERMAL DATA

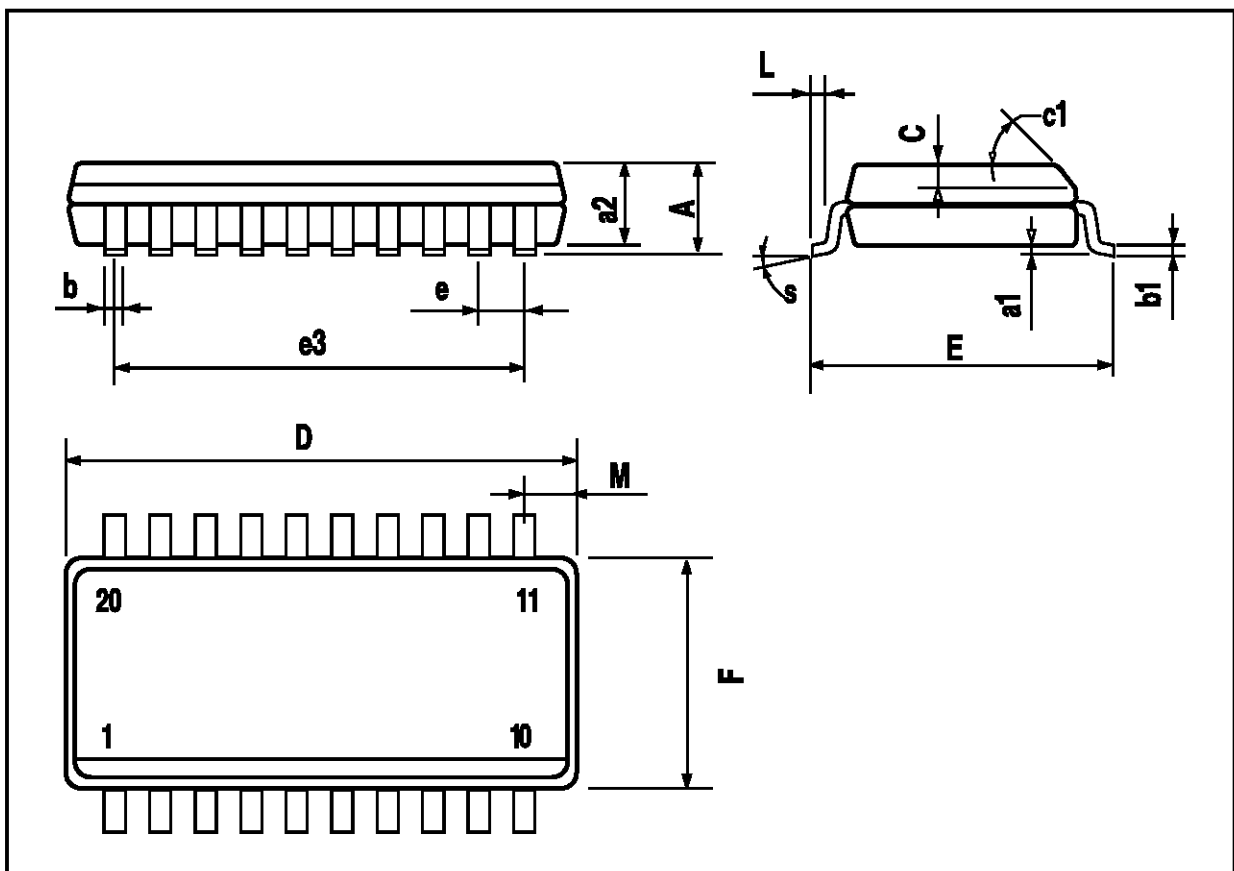
Symbol	Parameter		DIP20	SO20	Unit
$R_{th j-amb}$	Thermal Resistance Junction to Ambient	Max.	100	200	°C/W

**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

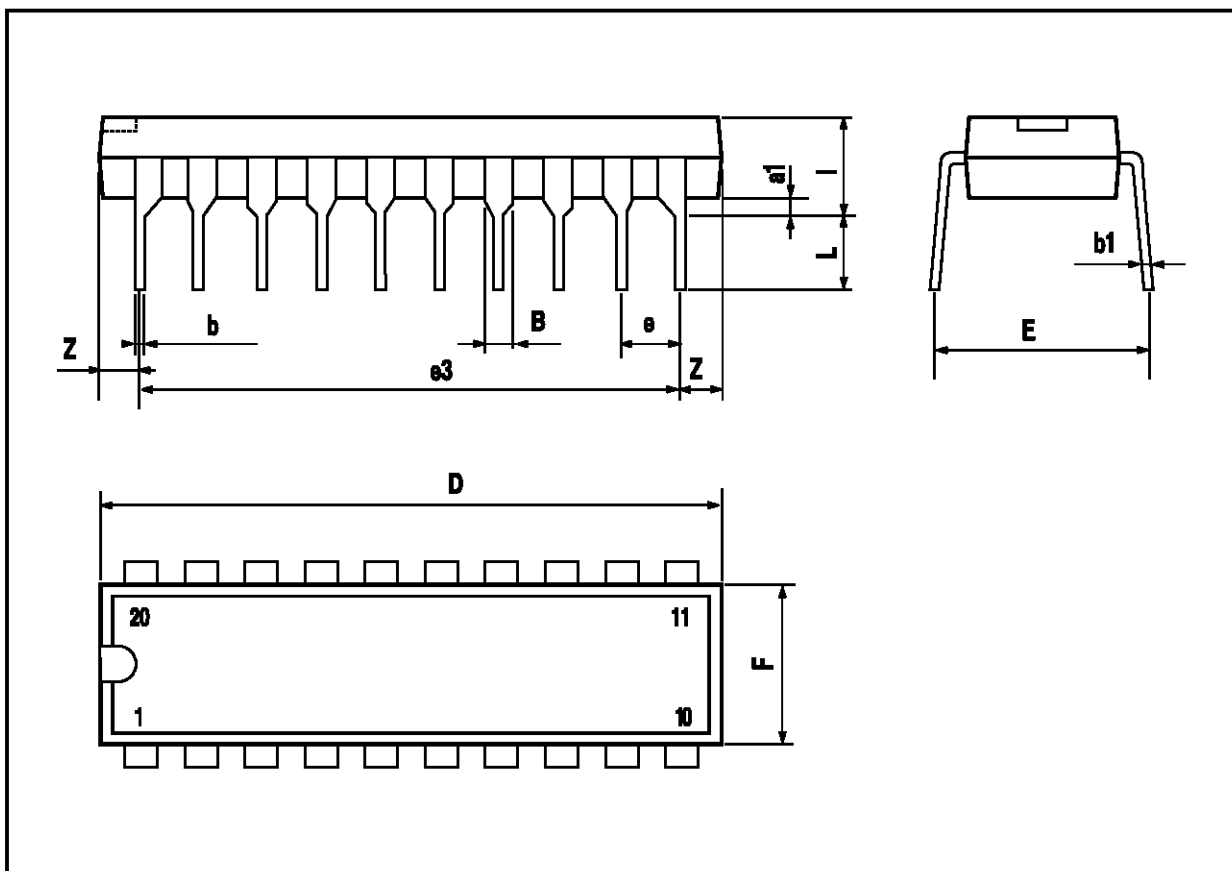
SO20 PACKAGE MECHANICAL DATA

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
l			3.93			0.155
L		3.3			0.130	
Z			1.34			0.053



Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SGS-THOMSON Microelectronics. Specification mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectronics.

© 1997 SGS-THOMSON Microelectronics – Printed in Italy – All Rights Reserved

SGS-THOMSON Microelectronics GROUP OF COMPANIES

Australia - Brazil - Canada - China - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands - Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A.