



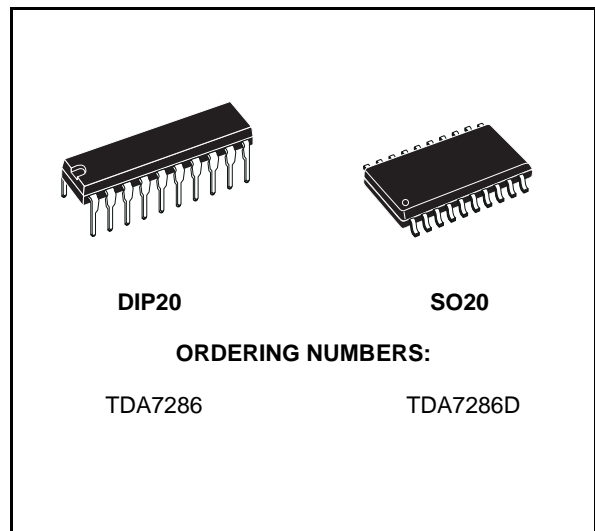
# TDA7286

## SINGLE CHIP PREAMPLIFIER FOR DOUBLE DECK RADIO CASSETTE RECORDER

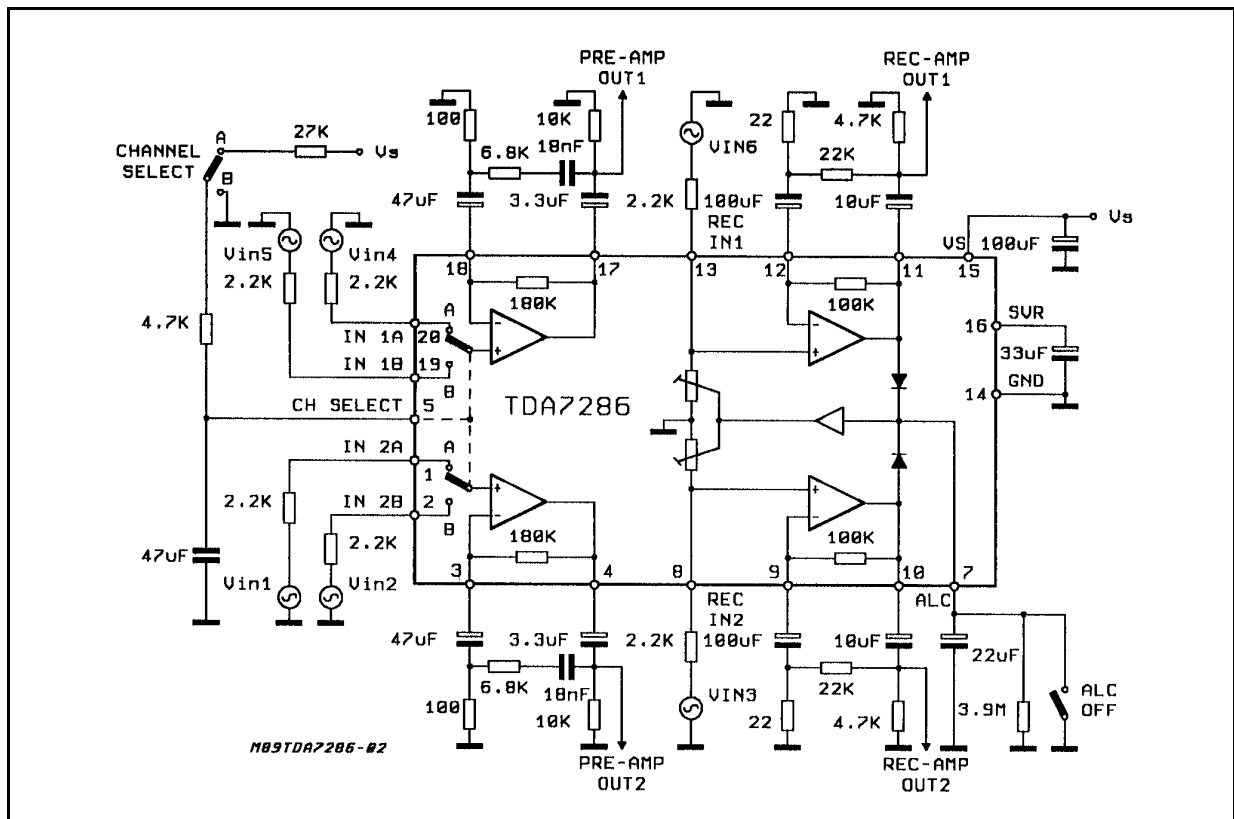
- HIGH OPEN-LOOP GAIN (80dB)
- VERY LOW INPUT NOISE
- LOW TURN ON/OFF POP
- LOW SUPPLY CURRENT
- PLAYBACK AMPLIFIER WITH HEAD INPUT SWITCH
- RECORDING AMPLIFIER WITH BUILT-IN ALC
- ALC TIME CONSTANT PIN CAN BE USED AS ALC SWITCH
- GOOD SUPPLY RIPPLE REJECTION

### 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

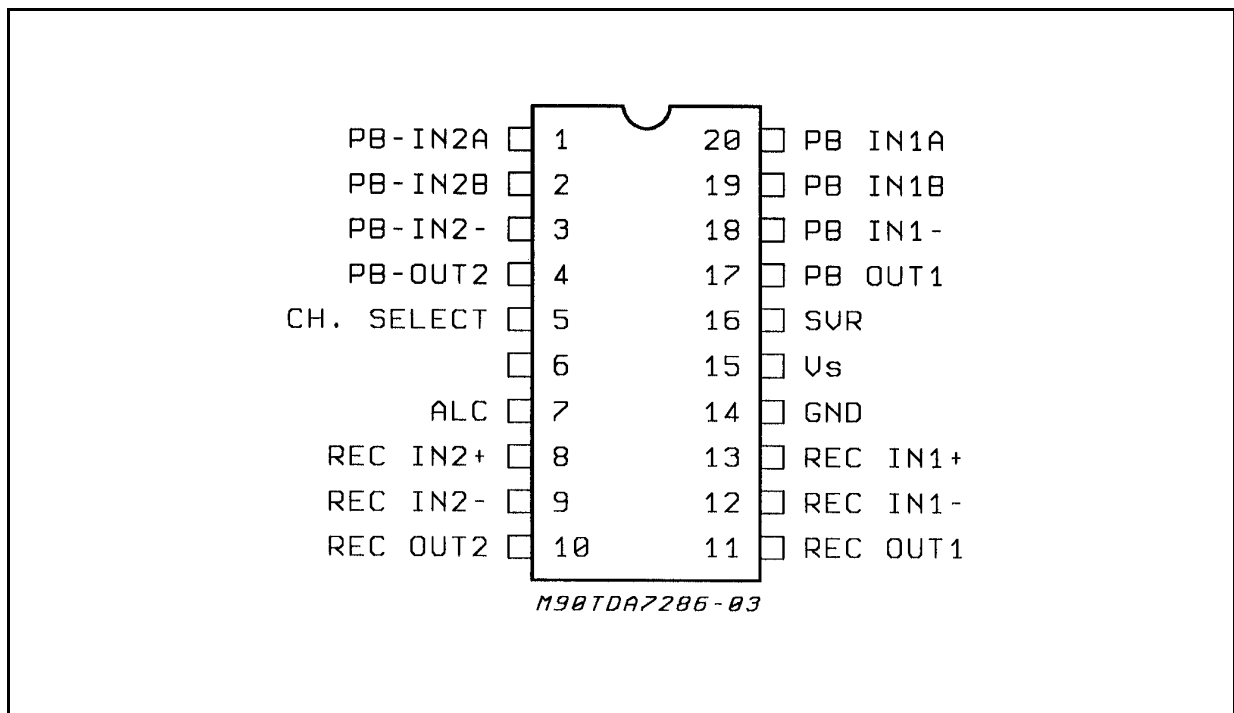


# TDA7286

## 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

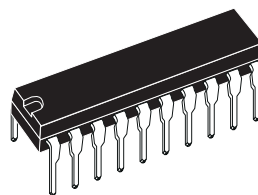
Symbol	Parameter		DIP20	SO20	Unit
$R_{thj-amb}$	Thermal Resistance Junction to Ambient	Max.	100	200	°C/W

**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.)

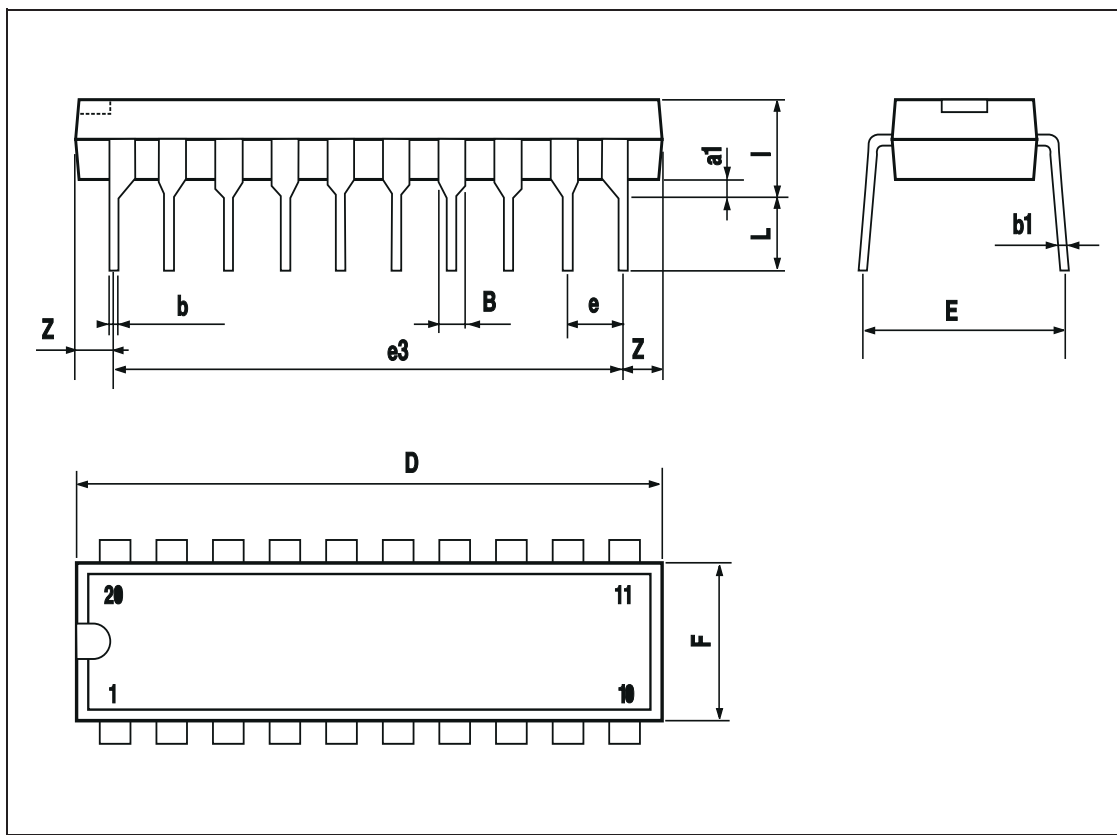
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$V_S$	Supply Voltage		4		12	V
$I_d$	Quiescent Current			7	15	mA
<b>PLAYBACK AMPLIFIER</b>						
$G_{VO}$	Open Loop Gain			80		dB
$V_{CD}$	Output DC Voltage		1.2	1.5	1.7	V
$V_O$	Output AC Voltage	THD = 1%	700	950		mVrms
SVR	Supply Voltage Rejection	$f = 100Hz$	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

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

**OUTLINE AND MECHANICAL DATA**

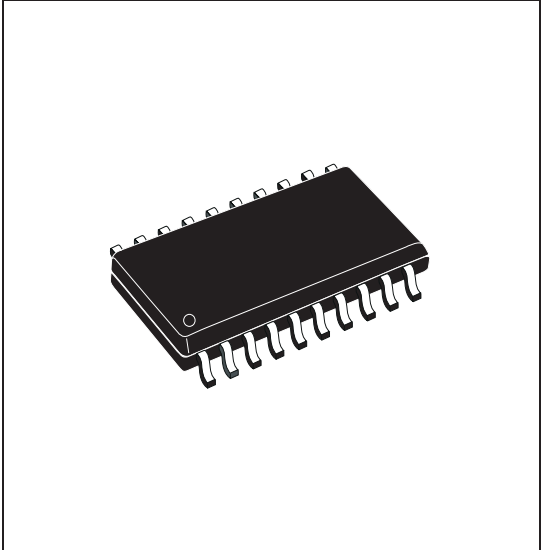


**DIP20**



DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	2.35		2.65	0.093		0.104
A1	0.1		0.3	0.004		0.012
B	0.33		0.51	0.013		0.020
C	0.23		0.32	0.009		0.013
D	12.6		13	0.496		0.512
E	7.4		7.6	0.291		0.299
e		1.27			0.050	
H	10		10.65	0.394		0.419
h	0.25		0.75	0.010		0.030
L	0.4		1.27	0.016		0.050
K	0° (min.)8° (max.)					

**OUTLINE AND MECHANICAL DATA**



**SO20**

