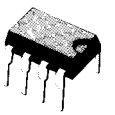
STEREO LOW VOLTAGE CASSETTE PREAMPLIFIER

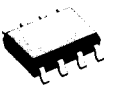
- LOW ON/OFF POP NOISE
- LOW OPERATING VOLTAGE
- VERY LOW DISTORTION

The TDA7282 is a monolithic integrated circuit intended for stereo cassette players.

The TDA7282 is assembled in 8 leads plastic minidip.



Minidip Plastic



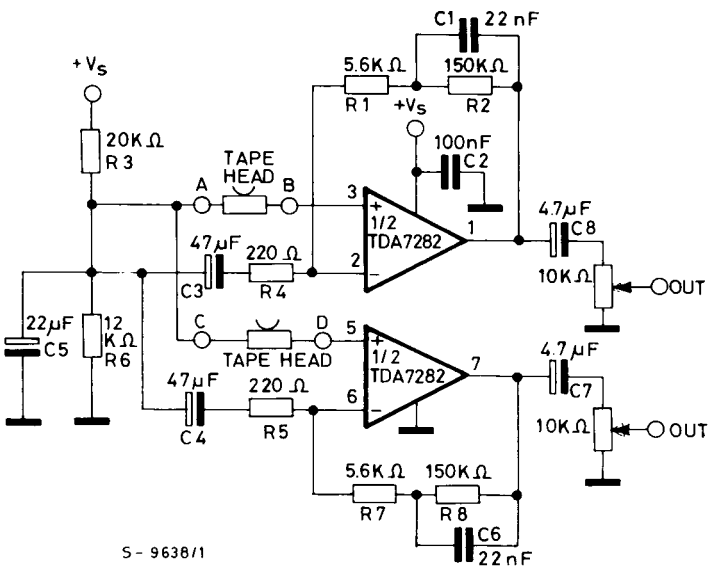
SO-8J

ORDERING NUMBER: TDA7282 (Minidip)
TDA7282D (SO.8)

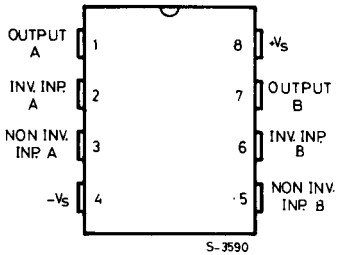
ABSOLUTE MAXIMUM RATINGS

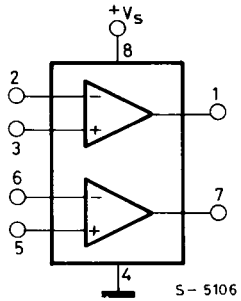
V_s	Supply voltage	10	V
T_{stg}, T_j	Storage and junction temperature	-40 to +150	°C
P_{tot}	Total power dissipation at T_{amb} = 70°C	400	mW

STEREO PREAMPLIFIER FOR CASSETTE PLAYERS

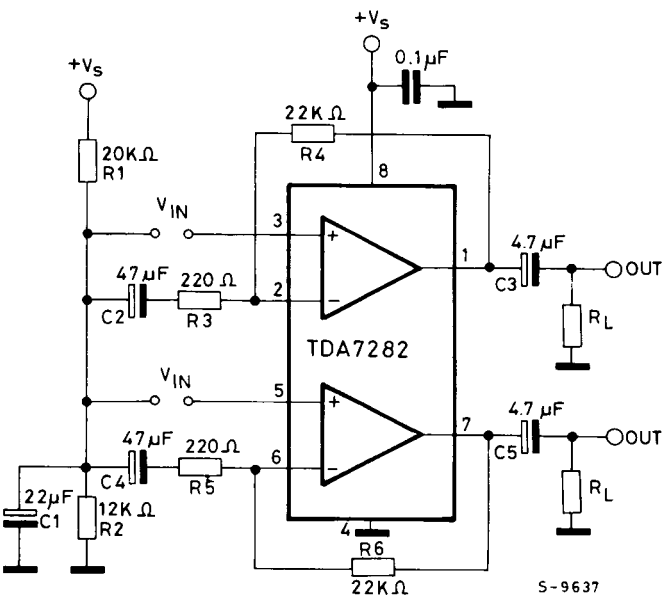


CONNECTION AND BLOCK DIAGRAM





TEST CIRCUIT



THERMAL DATA

$R_{th\ j\text{-}amb}$	Thermal resistance junction-ambient	max	200	°C/W

ELECTRICAL CHARACTERISTICS (V_s = 3V, T_{amb} = 25°C, f = 1KHz, G_v = 40dB, R_L = 10KΩ, R_s = 600Ω unless otherwise specified)

Parameter		Test Conditions	Min.	Typ.	Max.	Unit
V_s	Supply voltage		1.8		9	V
I_d	Supply current			1.5	3	mA
I_b	Input bias current			280	500	nA
I_{os}	Input offset current			20		nA
V_{os}	Input offset voltage			0.5		mV
$V_{o\,DC}$	Quiescent voltage			1.1		V
V_o	Output voltage	THD = 1%	550	650		mV
THD	Total harmonic distortion f = 100Hz f = 1KHz f = 10KHz	 V_o = 300mV		 0.08 0.07 0.1	 0.5	 % % %
G_v	Open loop voltage gain	f = 1KHz	68	80		dB
G_v	Closed loop gain			40		dB
	Channel balance			0.5		dB
e_N	Total input noise voltage	B_W = 22KHz to 22KHz		1.5		μV
C_S	Channel separation	f = 1KHz V_o = 30mV		65		dB
SVR	Supply voltage rejection	f = 100Hz	36	45		dB
R_{IN}	Input resistance			100		KΩ
R_o	Output resistance			15		Ω

APPLICATION INFORMATION

Fig. 1 - Stereo preamplifier for cassette players

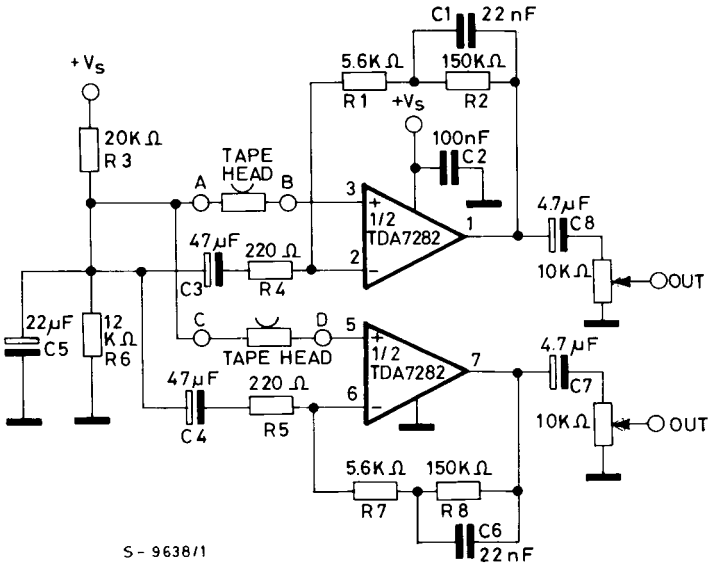
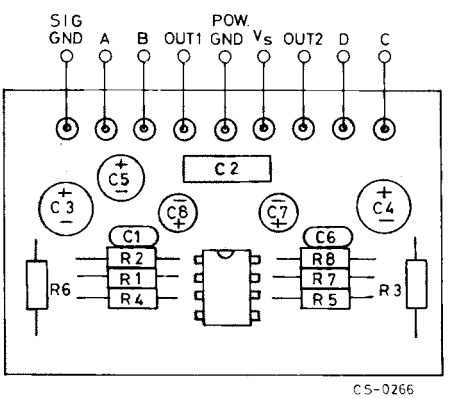


Fig. 2 - P.C and components layout of the circuit of Fig. 1 (1 : 1 scale)



APPLICATION INFORMATION (continued)

Fig. 3 - Quiescent current vs. supply voltage

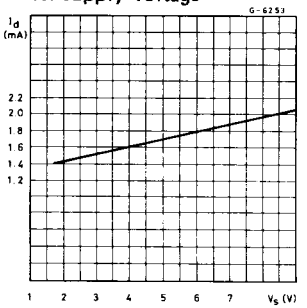


Fig. 4 - DC output voltage vs. supply voltage

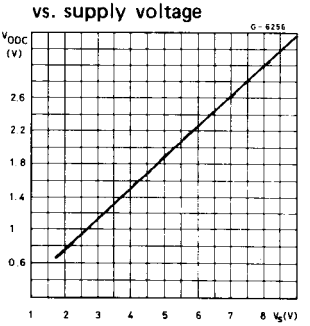


Fig. 5 - Input bias current vs. supply voltage

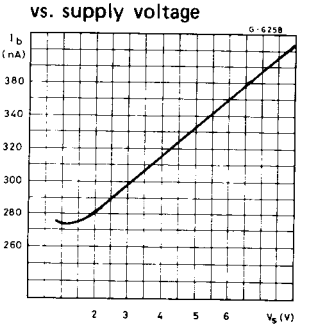


Fig. 6 - Distortion versus output level

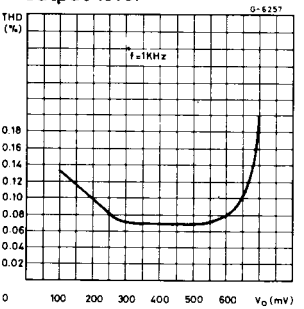


Fig. 7 - Distortion vs. frequency

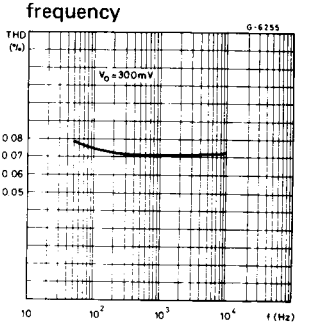


Fig. 8 - NAB response of the circuit of Fig. 1

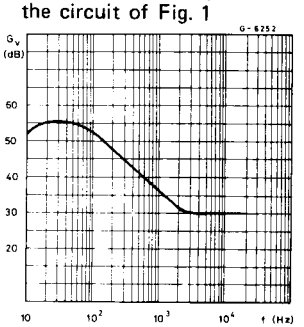


Fig. 9 - Supply voltage rejection vs. frequency

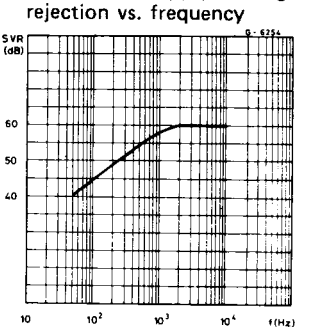


Fig. 10 - Stereo cassette player with motor speed control