

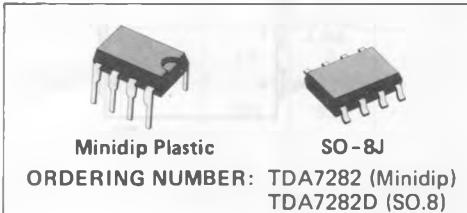


STEREO LOW VOLTAGE CASSETTE PREAMPLIFIER

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

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

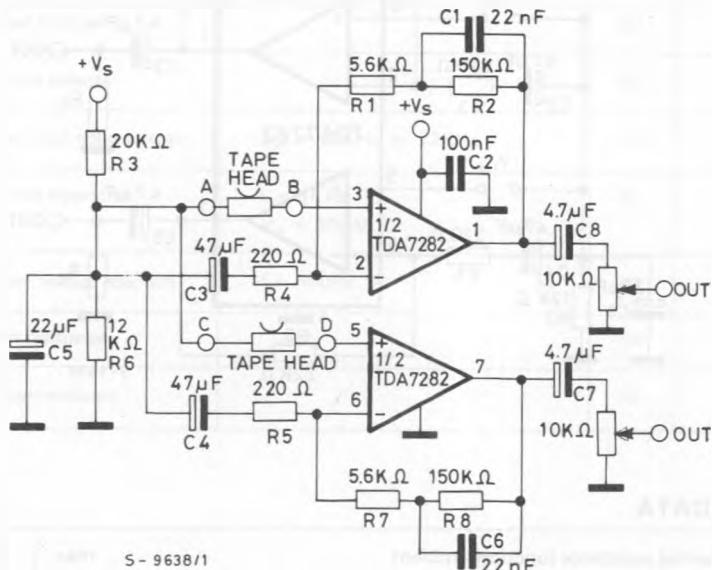
The TDA7282 is assembled in 8 leads plastic minidip.



ABSOLUTE MAXIMUM RATINGS

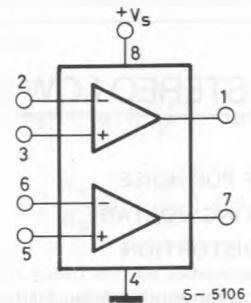
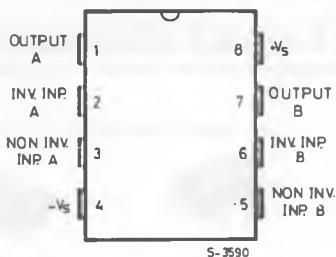
V_s	Supply voltage	10	V
T_{sg}, T_j	Storage and junction temperature	-40 to +150	°C
P_{tot}	Total power dissipation at $T_{amb} = 70^\circ\text{C}$	400	mW

STEREO PREAMPLIFIER FOR CASSETTE PLAYERS

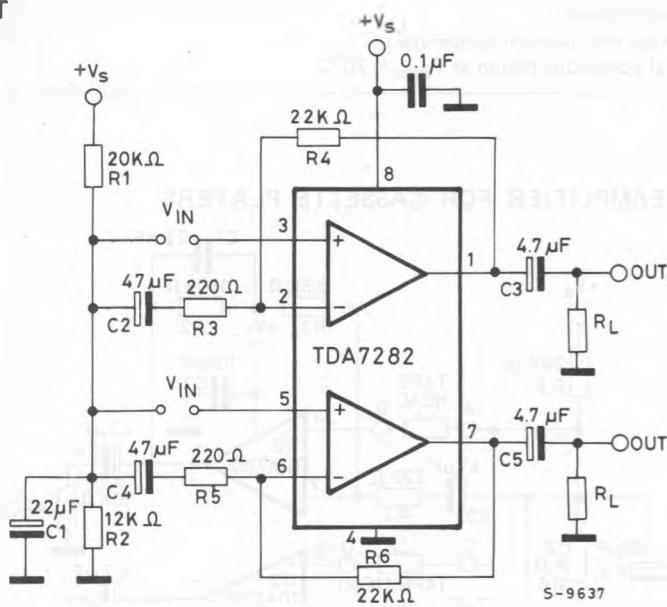


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CONNECTION AND BLOCK DIAGRAM



TEST CIRCUIT



THERMAL DATA

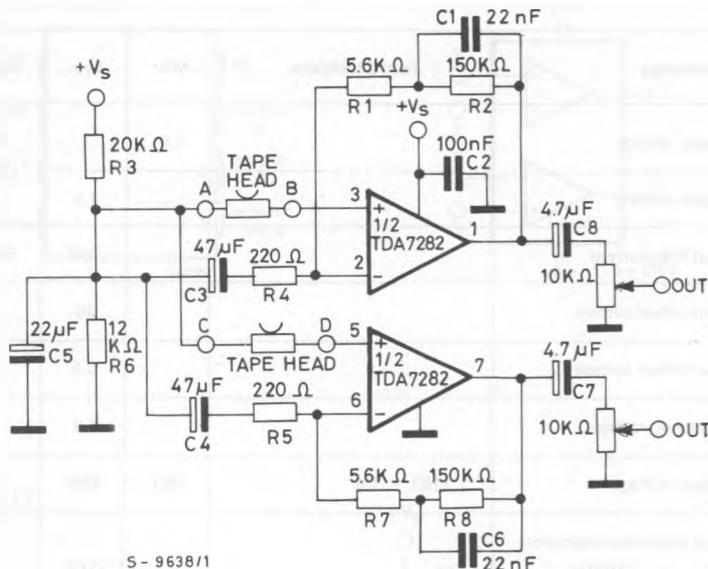
R _{th j-amb}	Thermal resistance junction-ambient	max	200	°C/W
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ELECTRICAL CHARACTERISTICS ($V_s = 3V$, $T_{amb} = 25^\circ C$, $f = 1\text{KHz}$, $G_v = 40\text{dB}$, $R_L = 10\text{K}\Omega$, $R_s = 600\Omega$ unless otherwise specified)

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

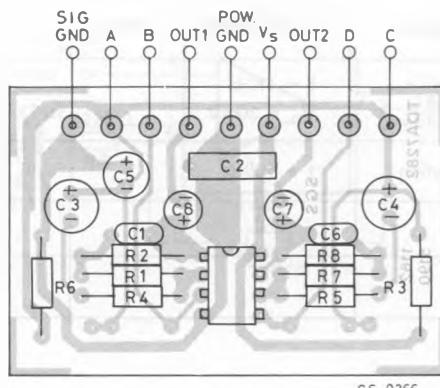
APPLICATION INFORMATION

Fig. 1 - Stereo preamplifier for cassette players



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



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APPLICATION INFORMATION (continued)

Fig. 3 - Quiescent current vs. supply voltage

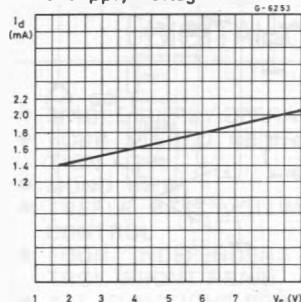


Fig. 4 - DC output voltage vs. supply voltage

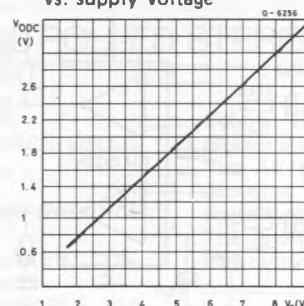


Fig. 5 - Input bias current vs. supply voltage

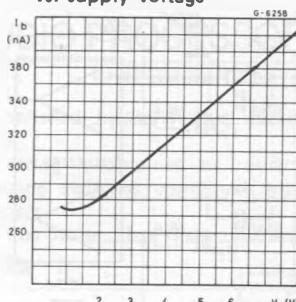


Fig. 6 - Distortion versus output level

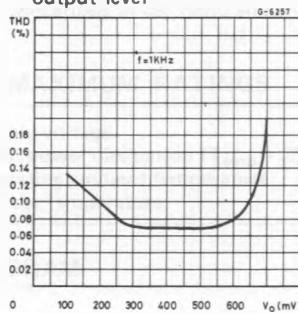


Fig. 7 - Distortion vs. frequency

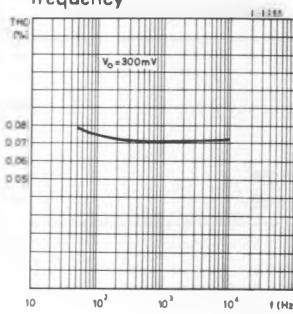


Fig. 8 - NAB response of the circuit of Fig. 1

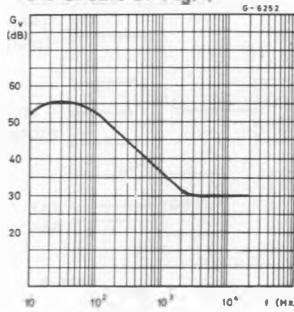


Fig. 9 - Supply voltage rejection vs. frequency

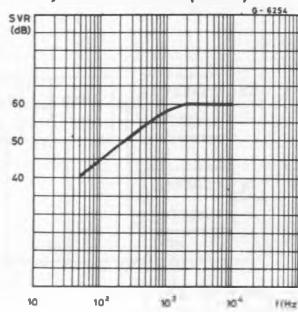
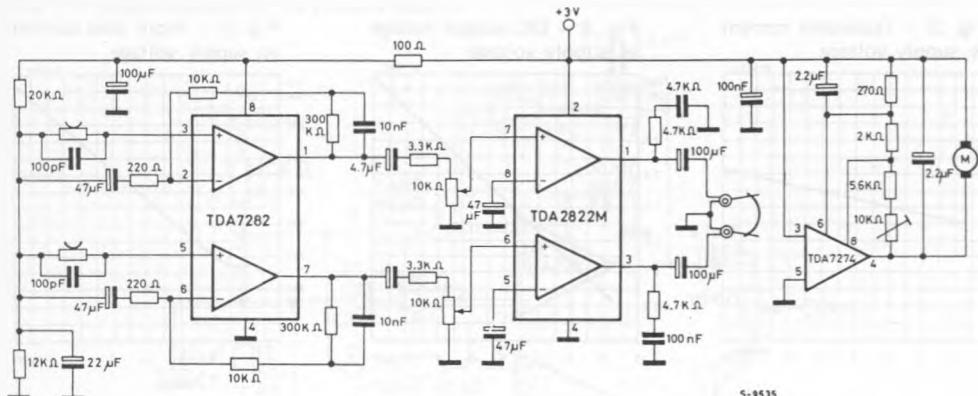


Fig. 10 – Stereo cassette player with motor speed control



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