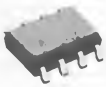
SGS-THOMSON MICROELECTRONICS

TDA7236

VERY LOW VOLTAGE AUDIO BRIDGE

ADVANCE DATA

The TDA7236 is a monolithic bridge audio amplifier in minidip and SO-8J package intended for use as audio power amplifier in telephone sets, mono radio receivers, etc.. Its main features are: minimum working supply voltage of 0.9V and low quiescient current.



SO-8J

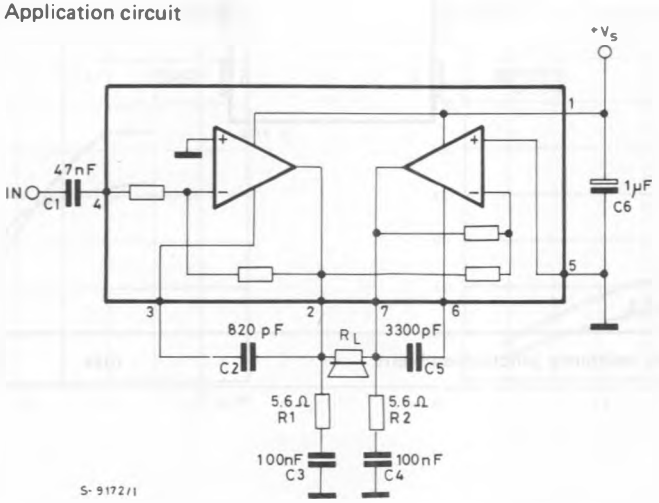
Minidip Plastic

ORDERING NUMBER: TDA7236 (Minidip)
TDA7236D (SO-8J)

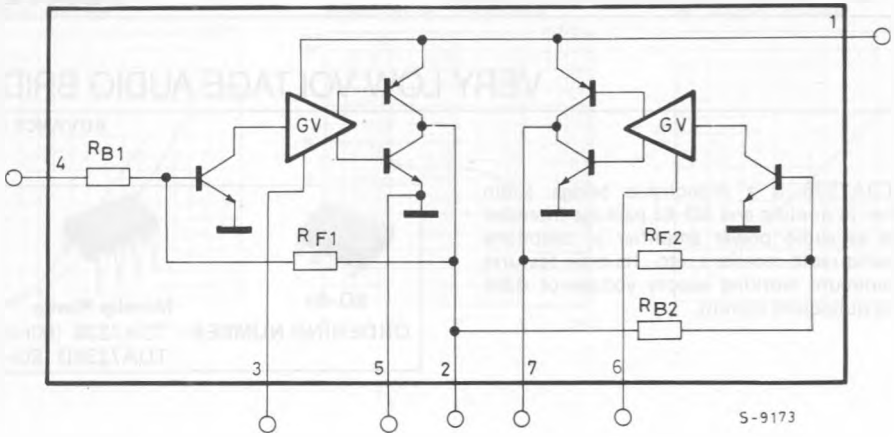
ABSOLUTE MAXIMUM RATINGS

V_s	Supply voltage	1.8	V
I_o	Output power current	50	mA
P_{tot}	Total power dissipation at T_{amb} = 50°C	0.5	W
T_{stg}, T_j	Storage and junction temperature	-40 to +150	°C

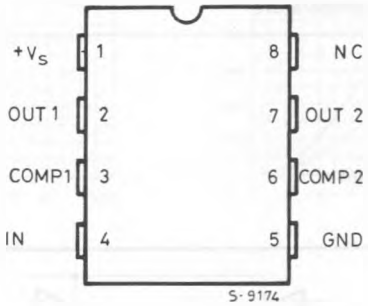
Fig. 1 - Test and Application circuit



SCHEMATIC DIAGRAM



CONNECTION DIAGRAM
(Top view)



THERMAL DATA

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

ELECTRICAL CHARACTERISTICS (Refer to the test circuit V_s = 1.25V, T_{amb} = 25°C, unless otherwise specified)

Parameter		Test Conditions	Min.	Typ.	Max.	Unit
V_s	Supply voltage range		0.9		1.6	V
V_o	Quiescent output voltage			0.62		V
I_d	Total quiescent drain current			1	3	mA
G_v	Voltage gain			31		dB
R_i	Input resistance			10		KΩ
P_o	Output power	R_L = 32Ω; f = 1KHz; d = 10%	13	17		mW
d	Distortion	R_L = 32Ω; f = 1KHz; P_o = 5mW		1		%
B	Bandwidth		200Hz to 10KHz			
e_N	Total input noise voltage (curve A)			2		μV
V_{os}	Output DC offset voltage			30		mV

Fig. 2 - Output power vs. supply voltage

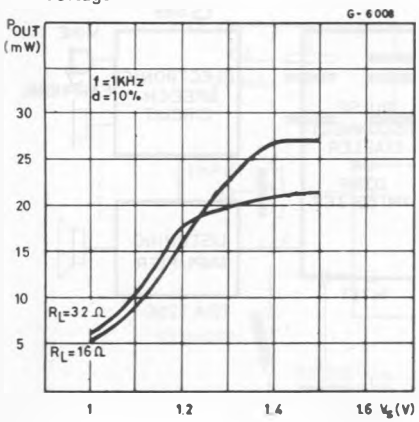


Fig. 3 - Drain current vs. supply voltage referred to Fig. 2

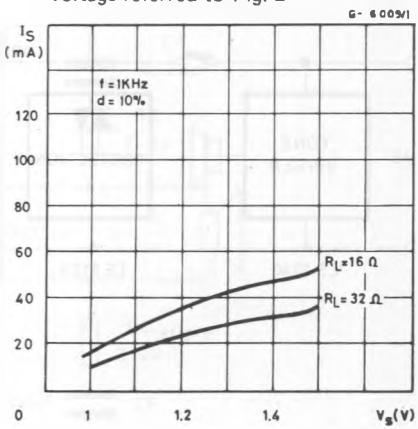
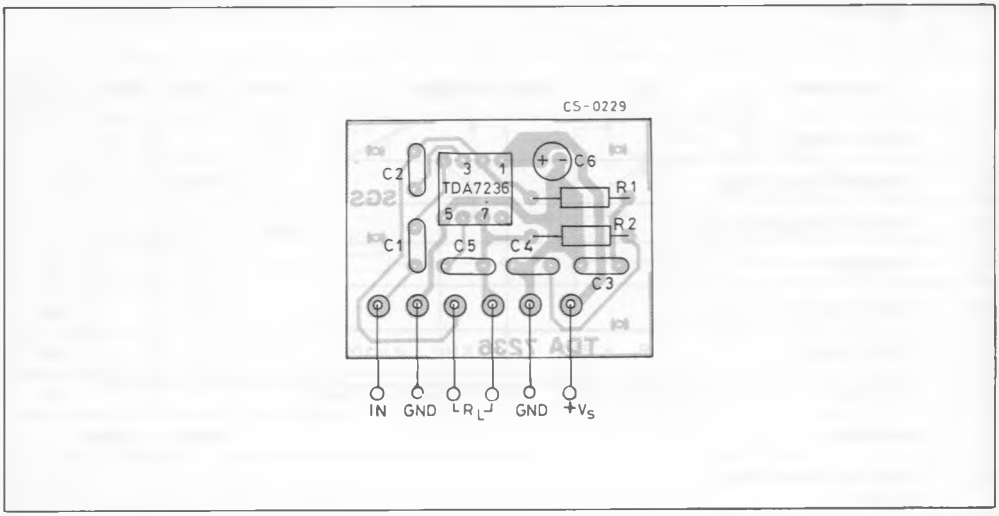


Fig. 4 - P.C. board and components layout of the circuit of Fig. 1 (1 : 1 scale)



TYPICAL APPLICATION CIRCUIT

Fig. 5 - Telephone listening amplifier