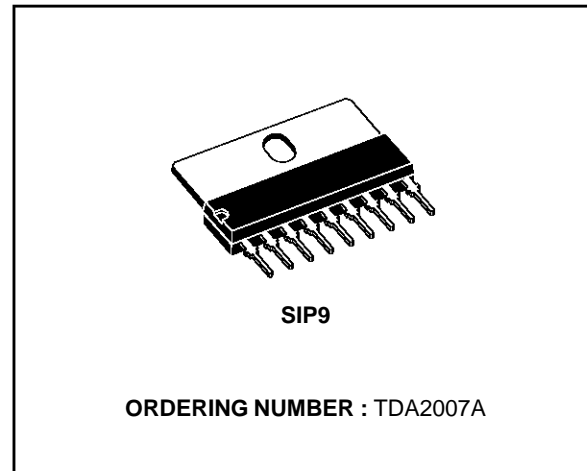


6 + 6W STEREO AMPLIFIER

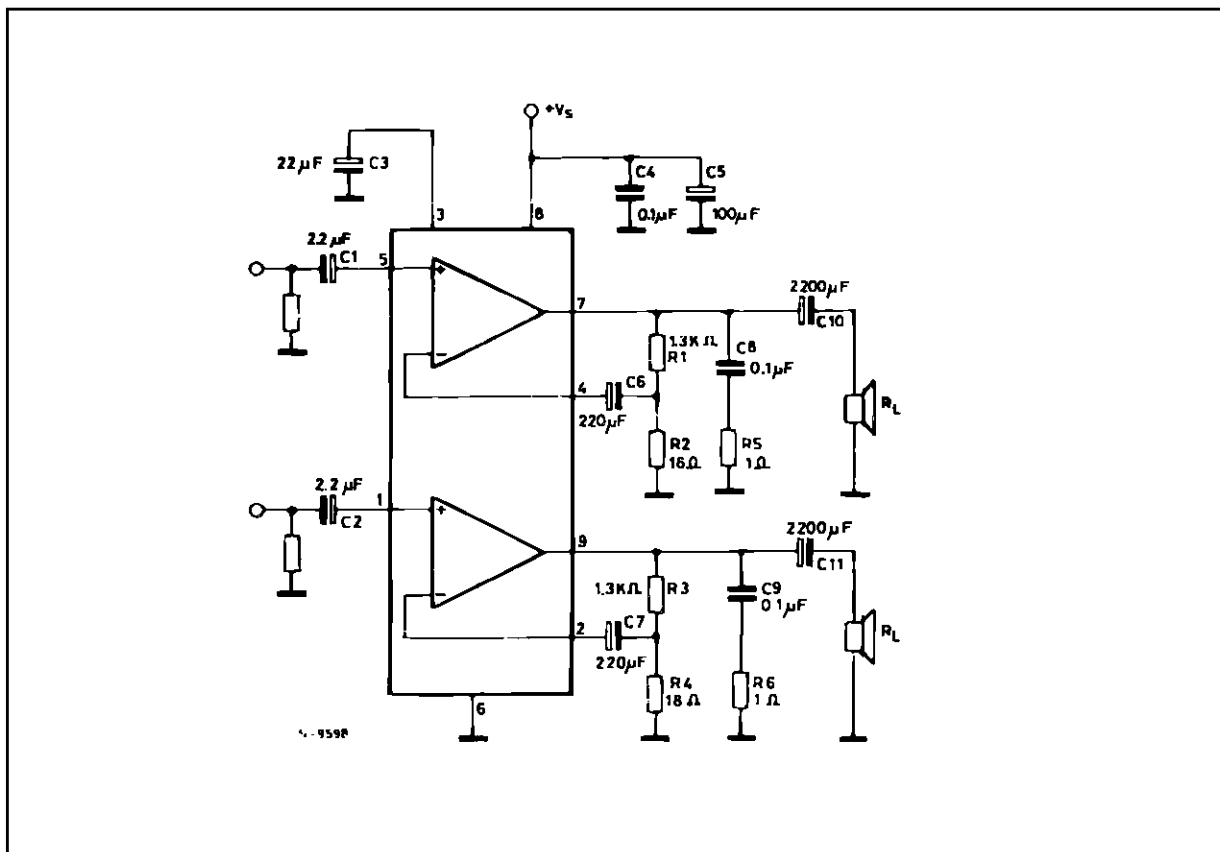
- HIGH OUTPUT POWER
- HIGH CURRENT CAPABILITY
- AC SHORT CIRCUIT PROTECTION
- THERMAL OVERLOAD PROTECTION

DESCRIPTION

The TDA2007A is a class AB dual Audio power amplifier assembled in single in line 9 pins package, specially designed for stereo application in music centers TV receivers and portable radios.

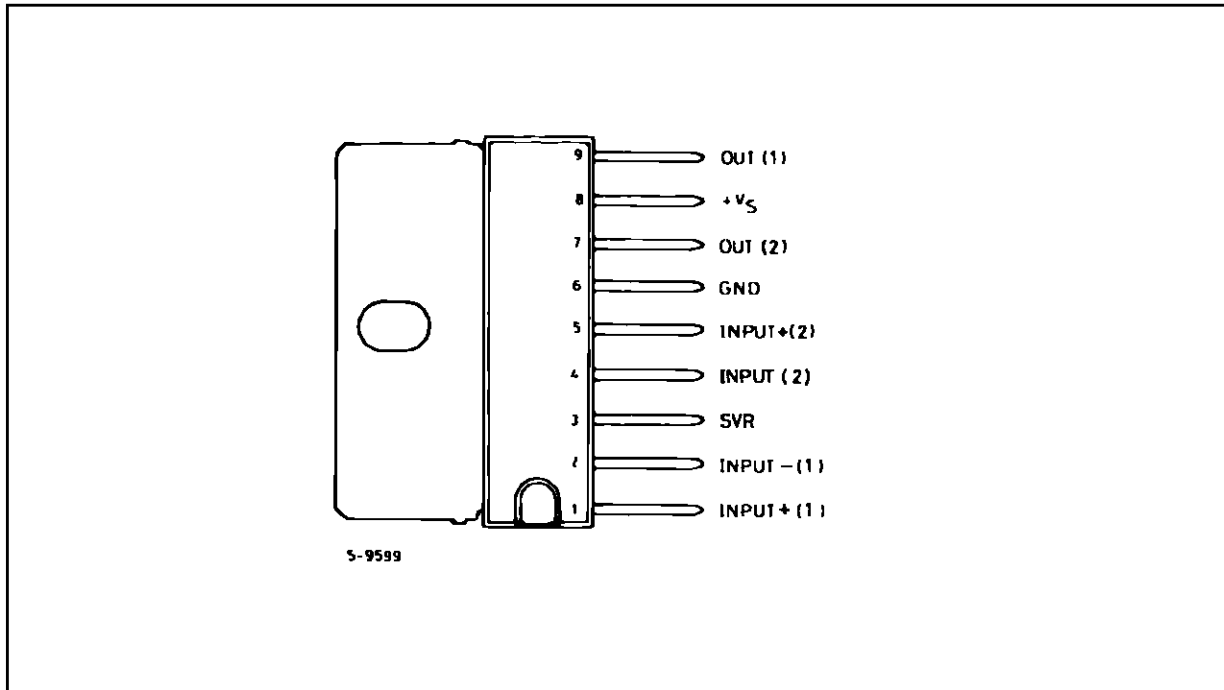


STEREO TEST CIRCUIT

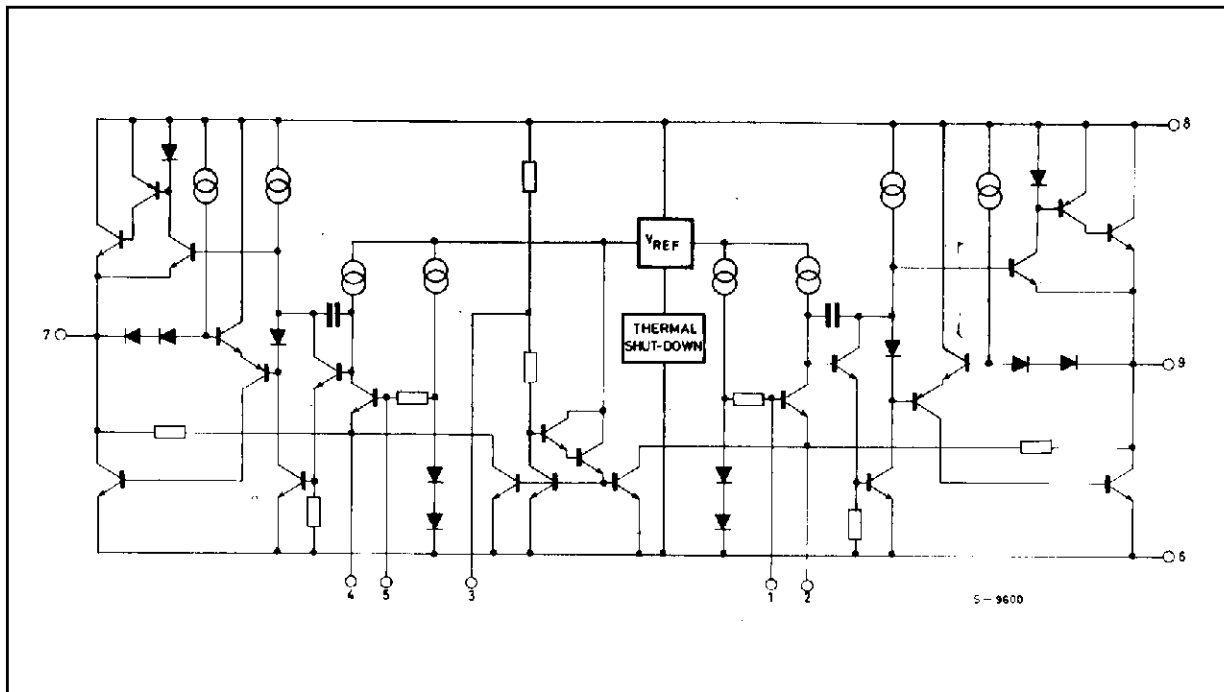


TDA2007A

PIN CONNECTION (top view)



SCHEMATIC DIAGRAM



THERMAL DATA

Symbol	Parameter	Value	Unit
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ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V _S	Supply Voltage	28	V
I _O	Output Peak Current (repetitive f ≥ 20Hz)	3	A
I _O	Output Peak Current (non repetitive t = 100μs)	3.5	A
P _{tot}	Power Dissipation at T _{case} = 70°C	10	W
T _{stg} , T _j	Storage and Junction Temperature	-40 to 150	°C

ELECTRICAL CHARACTERISTICS (refer to the stereo application circuit, T_{amb} = 25°C, V_S = 18V, G_V = 36dB, unless otherwise specified)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V _S	Supply Voltage		8		26	V
V _O	Quiescent Output Voltage			8.5		V
I _d	Total Quiescent Drain Current			50	90	mA
P _O	Output Power (each channel)	f = 100Hz to 6KHz d = 0.5% V _S = 18V R _L = 4Ω V _S = 22V R _L = 8Ω	5.5 5.5	6 6		W W
d	Distortion (each channel)	f = 1KHz, V _S = 18V, R _L = 4Ω P _O = 100mW to 3W f = 1KHz, V _S = 22V, R _L = 8Ω P _O = 100mW to 3W		0.1 0.05		% %
CT	Cross Talk (°°°)	R _L = ∞, R _g = 10KΩ f = 1KHz f = 10KHz	50 40	60 50		dB dB
V _i	Input Saturation Voltage (rms)		300			mV
R _i	Input Resistance	f = 1KHz	70	200		KΩ
f _L	Low Frequency Roll Off (-3dB)	R _L = 4Ω, C ₁₀ = C ₁₁ = 2200μF		40		Hz
f _H	Low Frequency Roll Off (-3dB)			80		KHz
G _V	Voltage Gain (closed loop)	f = 1KHz	35.5	36	36.5	dB
ΔG _V	Closed Loop Gain Matching			0.5		dB
e _N	Total Input Noise Voltage	R _g = 10kΩ (°) R _g = 10kΩ (°°)		1.5 2.5	8	μV μV
SVR	Supply Voltage Rejection (each channel)	R _g = 10KΩ f _{ripple} = 100Hz, V _{ripple} = 0.5V		55		dB
T _j	Thermal Shut-down Junction Temperature			145		°C

(°) Curve A. (°°) 22Hz to 22KHz.

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Figure 1 : Stereo Test Circuit ($G_v = 36 \text{ dB}$).

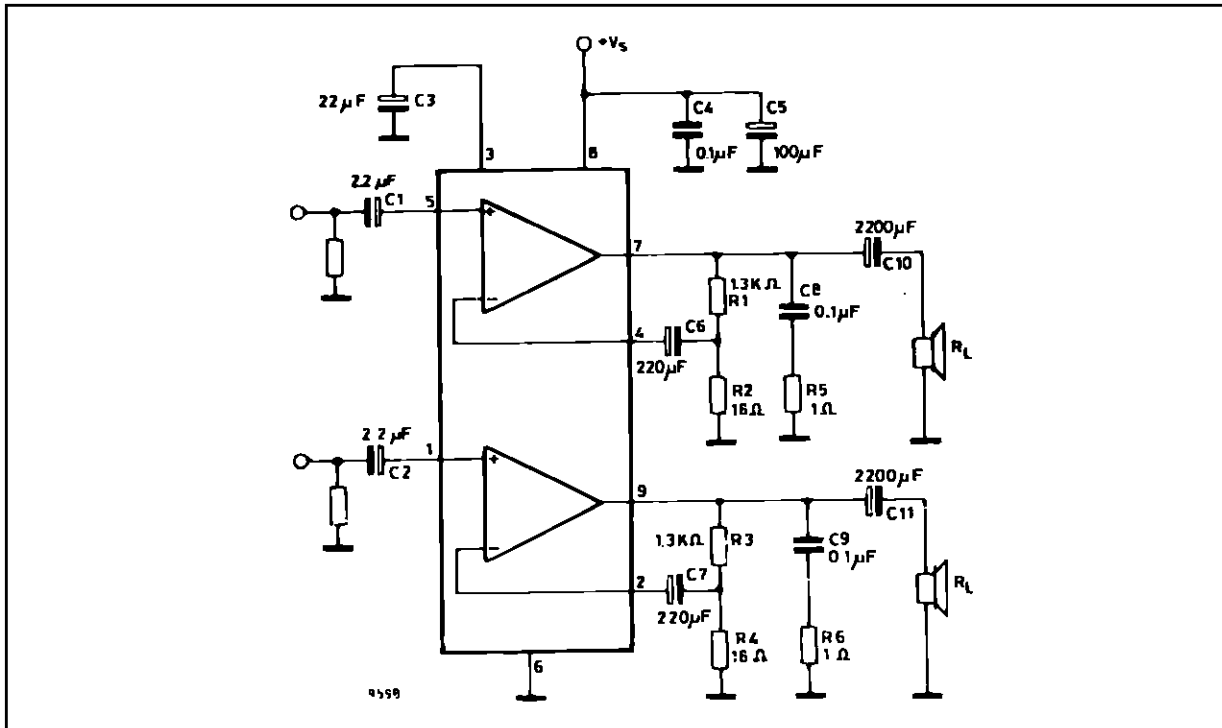
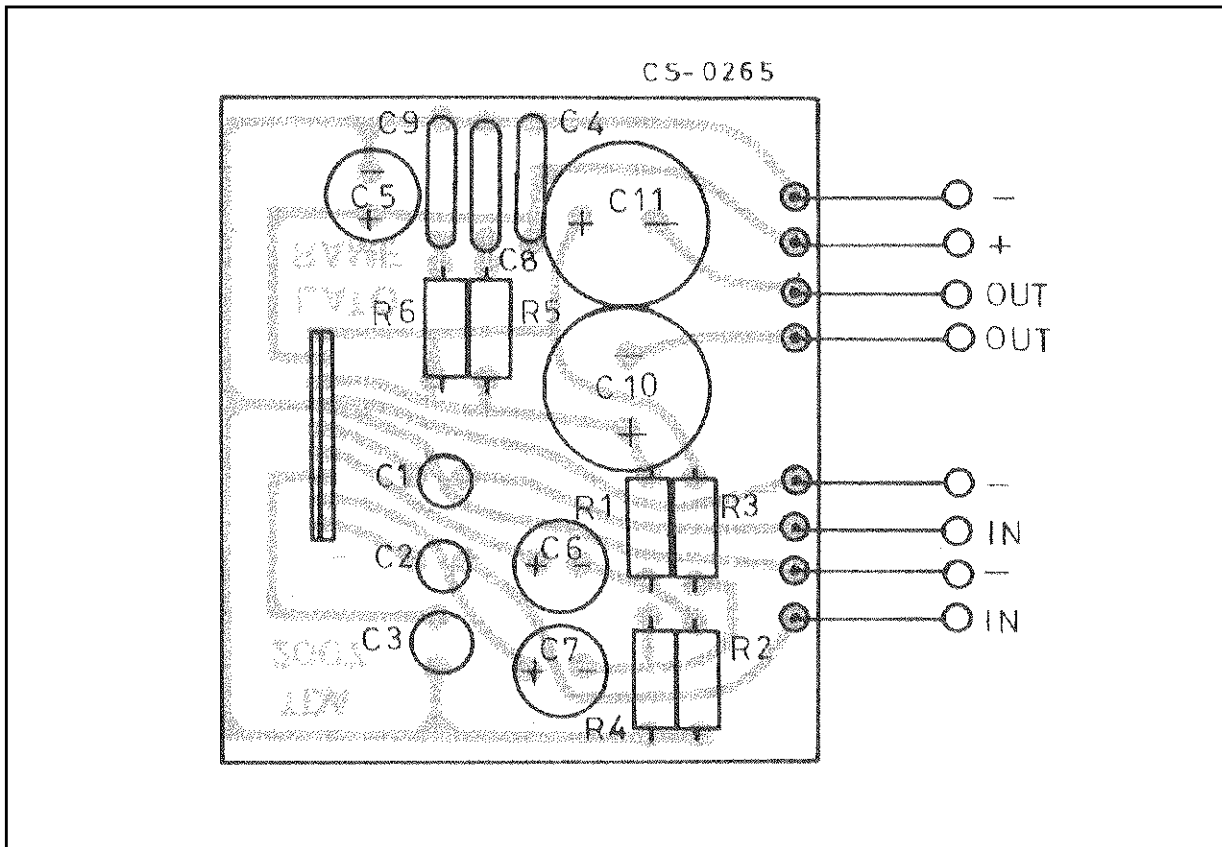


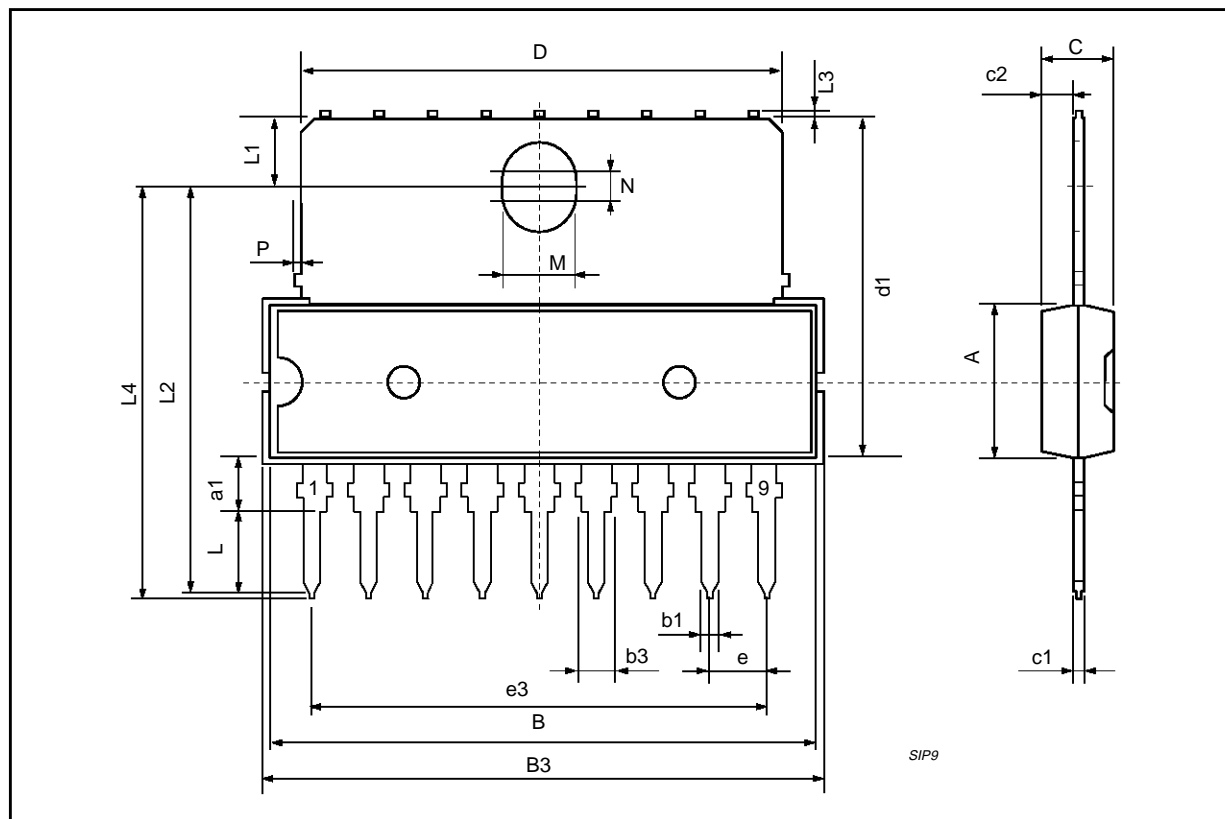
Figure 2 : P.C. Board and Components layout of the Circuit of Fig.1 (1 : 1 scale).



TDA2007A

SIP9 PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A			7.1			0.280
a1	2.7		3	0.106		0.118
B			23			0.90
B3			24.8			0.976
b1		0.5			0.020	
b3	0.85		1.6	0.033		0.063
C		3.3			0.130	
c1		0.43			0.017	
c2		1.32			0.052	
D			21.2			0.835
d1		14.5			0.571	
e		2.54			0.100	
e3		20.32			0.800	
L	3.1			0.122		
L1		3			0.118	
L2		17.6			0.693	
L3			0.25			0.010
L4	17.4		17.85	0.685		0.702
M		3.2			0.126	
N		1			0.039	
P			0.15			0.006



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