

COMPONENTS

TDA7052 AMPLIFIER

Capacitors

C1	10 μ r radial elect. 25V
C2	100n disc ceramic
C3	220 μ r radial elect. 25V

Potentiometers

VR1	4k7 min. rotary carbon, log.
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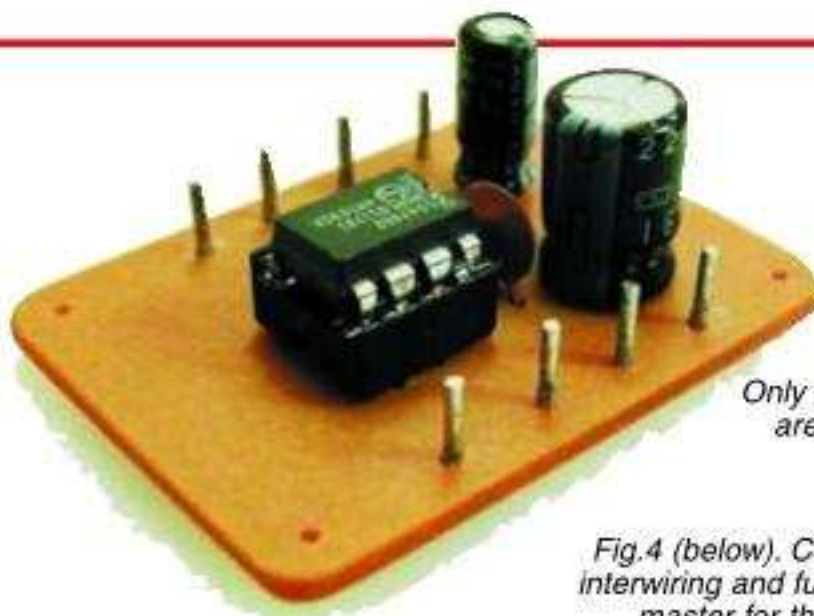
Semiconductor

IC1	TDA7052 power amp i.c.
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Miscellaneous

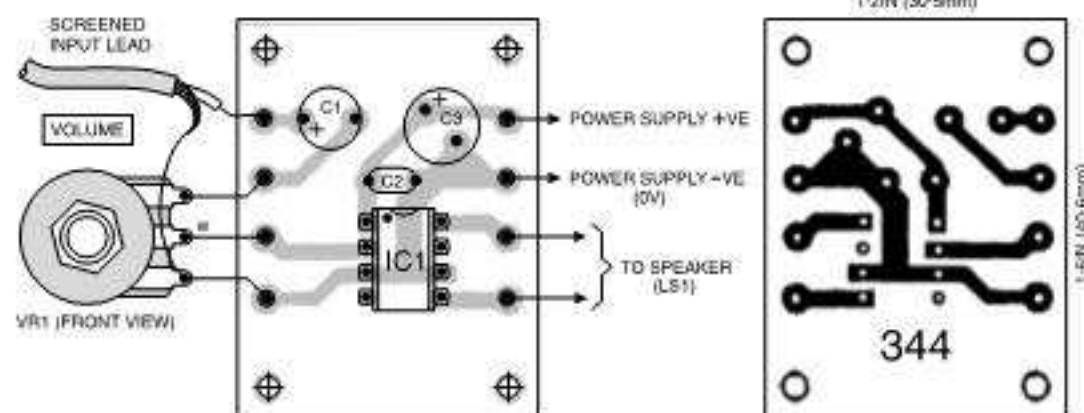
LS1	4 to 32 ohm loudspeaker (see text)
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Printed circuit board available from the EPE PCB Service, code 344 (TDA7052); case (optional), size and type to choice; 8-pin d.i.l. socket; multistrand connecting wire; audio screened cable; solder pins; solder etc.



Only four components are mounted on the TDA7052 p.c.b.

Fig.4 (below). Component layout, interwiring and full-size copper foil master for the TDA7052 Amp.



TBA820M AMPLIFIER

A circuit diagram incorporating the TBA820M audio amp i.c., which is manufactured by SGS-Thomson, together with a general performance guide, is given in Fig.5. The input arrangements, supply line bypassing, speaker coupling and Zobel network are conventional, and the relevant components can be identified from previous circuit descriptions.

Gain can be controlled by shunting an internal negative feedback loop, which is accessed at pin 2. Preset potentiometer VR2, placed in



Completed TBA820M amplifier module.

TBA820M POWER AMPLIFIER

R.M.S. power output just before the onset of waveform clipping

Speaker Impedance Ohms	Supply Voltage				
	3V	4.5V	6V	9V	12V
4	10mW	320mW	405mW	980mW	—
8	20mW	200mW	300mW	680mW	1.1W
16	30mW	115mW	180mW	405mW	720mW
32	20mW	60mW	90mW	225mW	390mW

Quiescent current

6mA

Input resistance

5M ohms

Input sensitivity for 680mW output (8 ohm load, 9V supply):

(a) VR2 set for maximum resistance

56mV r.m.s. (gain 40)

(b) VR2 set for minimum resistance

10mV r.m.s. (gain 230)

Absolute maximum supply voltage beyond which damage will occur

16V

Suggested maximum supply voltage:

with a 4 ohm speaker

9V

with an 8 ohm speaker

12V

High frequency response at -3dB point:

with C6 220pF

20kHz

with C6 680pF

7kHz

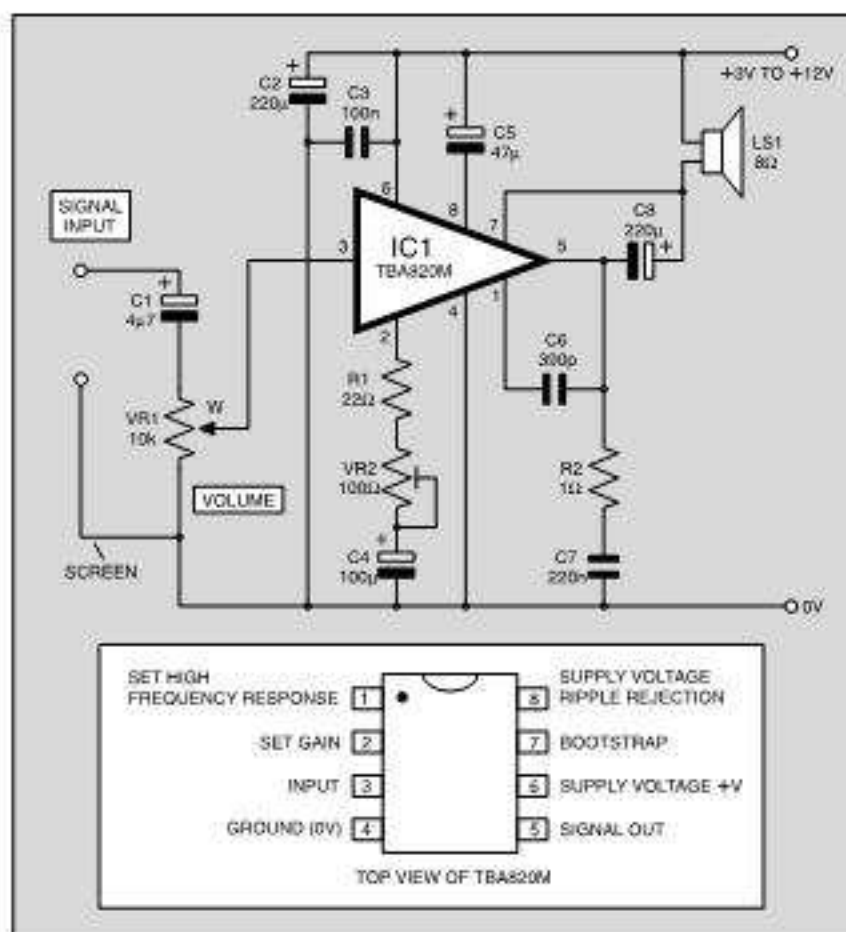


Fig.5. Circuit diagram and pinout details for the TBA820M power amplifier. See right for general performance details.