

Fig. 2; Circuit Diagram of the Amplifier Module

SPECIFICATION*	ETI 480	
	50 W version	100 W version
Output power	50 W into 8 ohms	100 W into 4 ohms
Frequency response	5 Hz – 50 kHz	5 Hz – 50 kHz
at rated power	+0 dB –3 dB	+0 dB –3 dB
Input Sensitivity	500 mV	1 V
Distortion	see Fig. 1	
Signal to noise ratio	100 dB	100 dB
Protection	1.5 A fuses	3 A fuses
Damping Factor	25	20
Power Requirement	33 V @ 1.2 A	33 V @ 2.4 A

* Measured performance of prototype

Fig. 13; ETI480 Specification

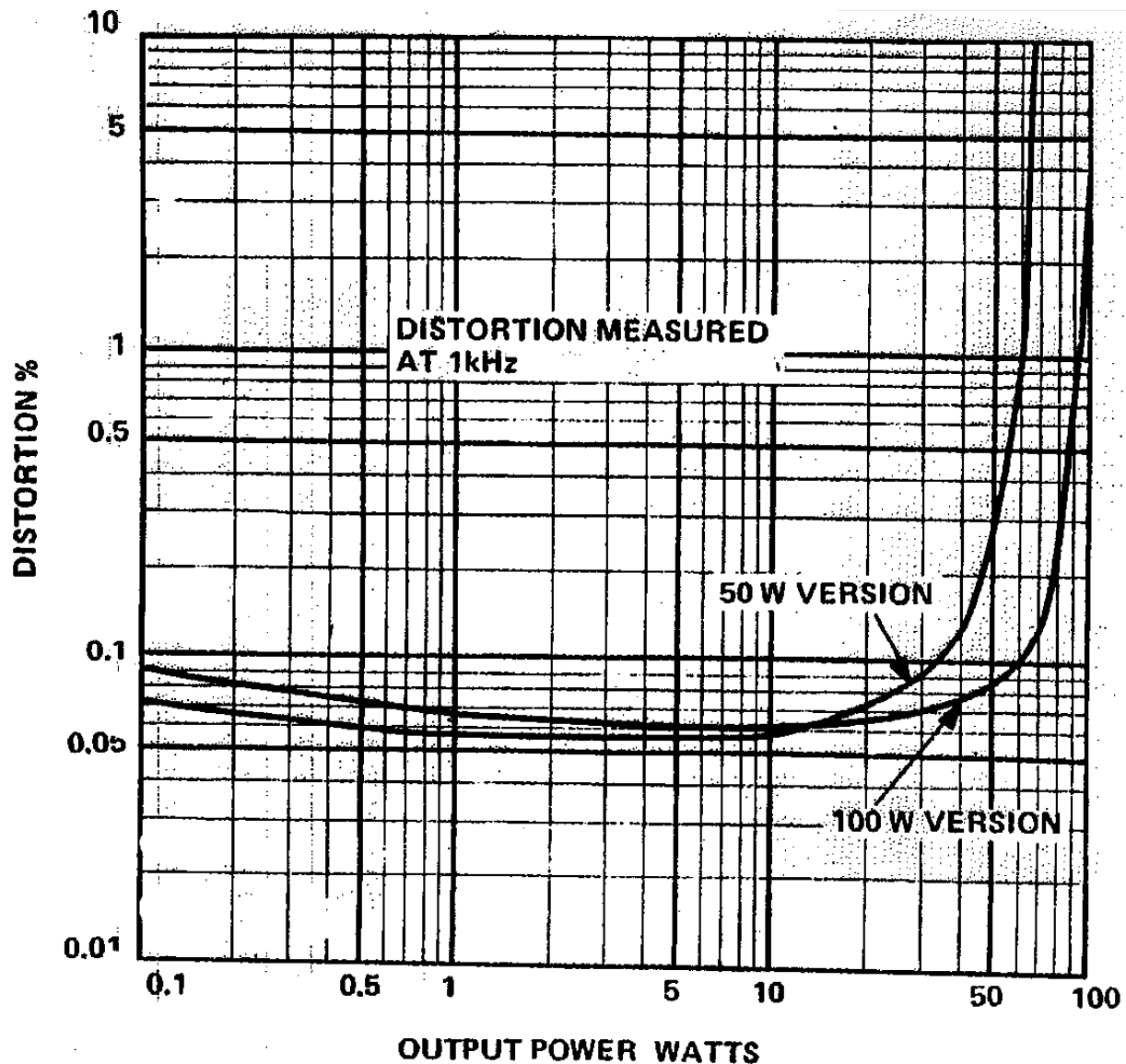


Fig. 1; Graph showing relationship between output power and distortion.

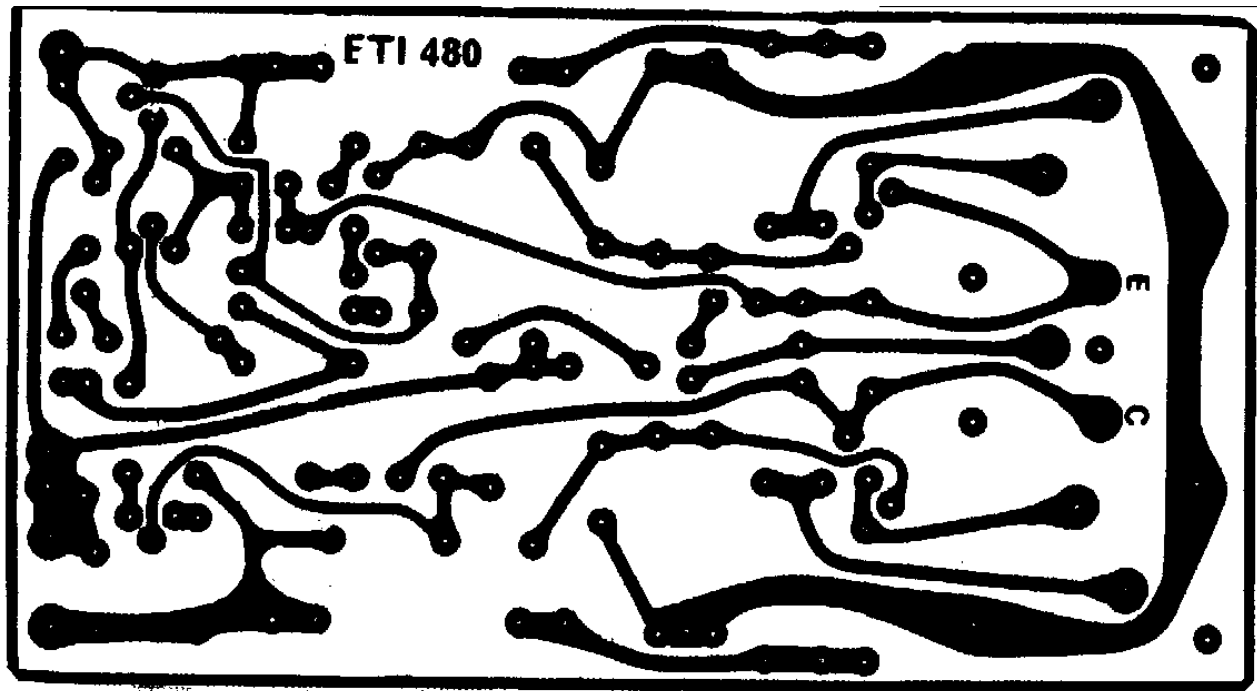


Fig. 4; Printed circuit layout of the amplifier. Full size 140mm x 76mm.

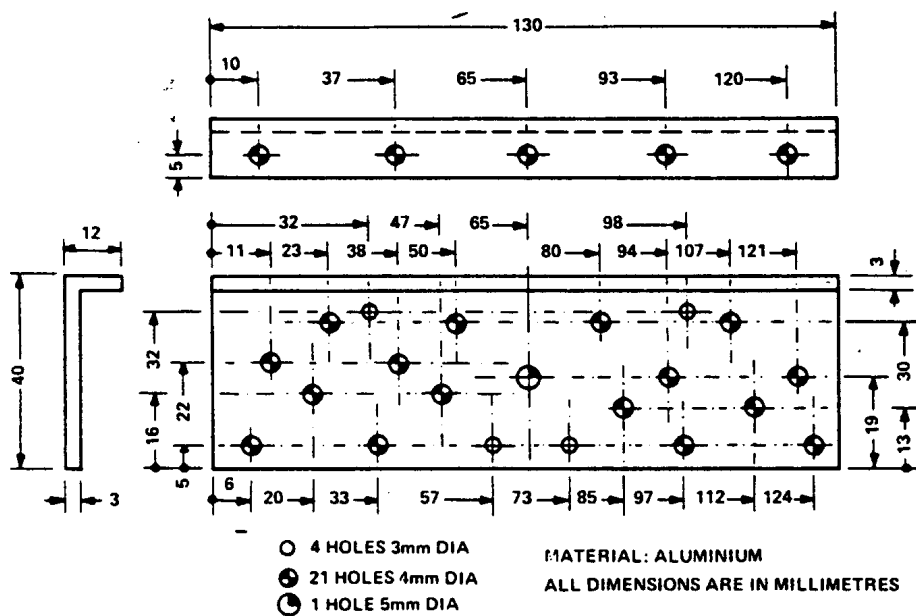


Fig. 8. Heatsink bracket for the 100 W module.

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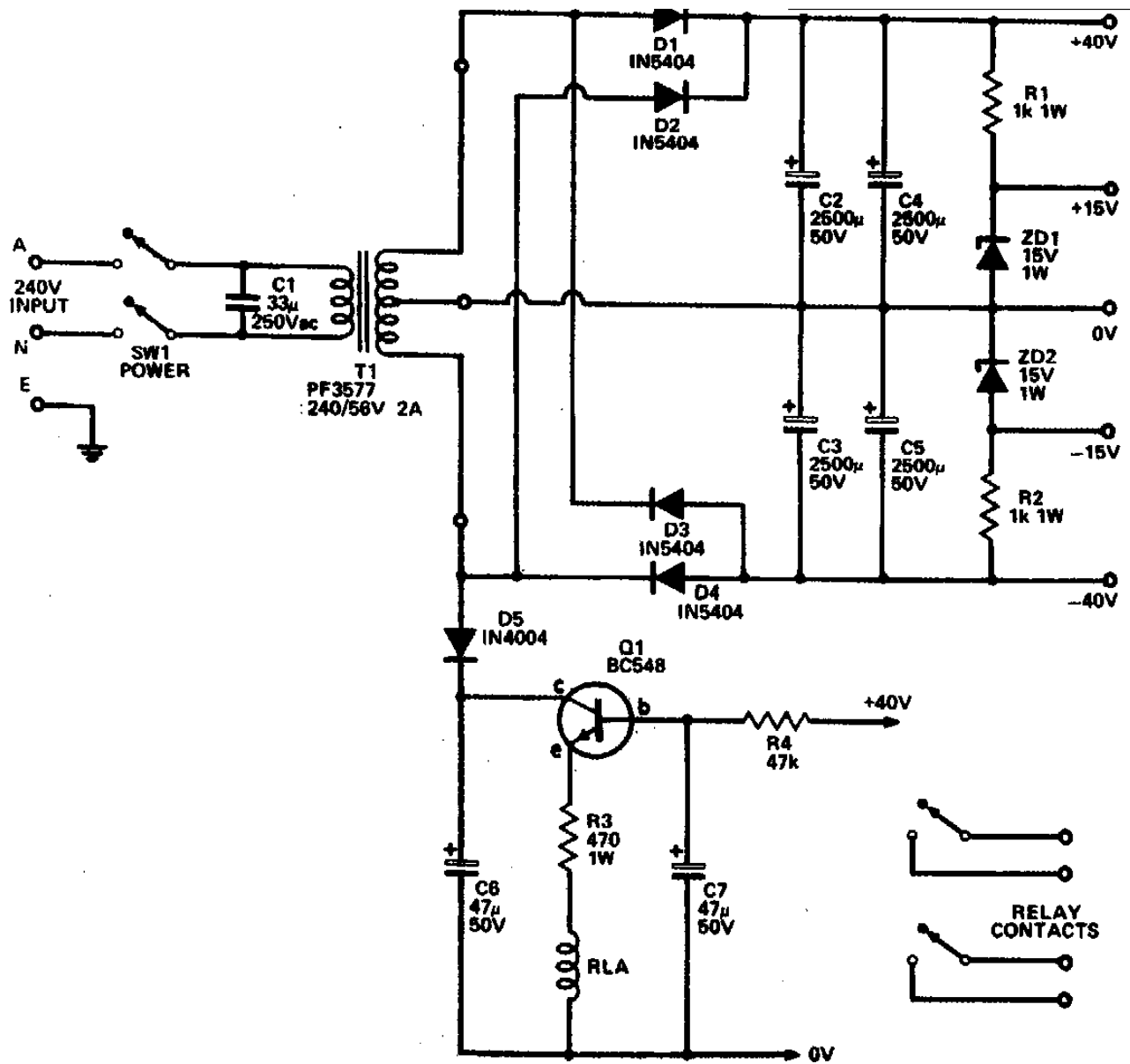


Fig. 3; Circuit diagram of the power supply for one 100W or two 50W amplifiers.

PARTS LIST — ETI 480

Resistors *all ½ W 5% unless noted*

R1 1k5 ½ W 5%
 R2 10 k
 R3 10
 R4 2k7
 R5 2k1

R6 3k3
 R7 220
 R8* 10 k
 R9 1k2
 R10 470

R11 1k2
 R12 560
 R13 470
 R14 47
 R15 33 1 W

R16 10 1 W
 R17 33 1 W
 R18 47 ½ W 5%
 R19 1 Ω 1 W
 R20–R23 220 1 W

R24 R26 1 Ω 1 W
 R27 R30*

Potentiometer

RV1 470 trim type

Capacitors

C1 4 μF 25 V electro
 C2 100 μ 16 V electro
 C3 100 p ceramic
 C4 3n3 polyester
 C5 330 p ceramic
 C6 100 n polyester
 C7 27 p ceramic
 C8–C12 100 n polyester

Transistors

Q1–Q3 BC557
 Q4 BD140
 Q5 BD139
 Q6 BC549
 Q7 BD139

Q8 BD140
 Q9 MJ2955
 Q10 2N3055
 Q11*
 Q12*

Zener diode

ZD1 5.6 V 400 mW

Miscellaneous

PC board ETI 480
 Four PC mounting fuse clips (FC1)
 Two fuses 1.5 A*
 Heatsink bracket to Fig. 9*
 Insulation kits for Q7–Q12.

* For 100 W version

R8 is 4k7 ½ W
 R27–R30 are 1 Ω 1 W
 Q11 is MJ2955
 Q12 is 2N3055
 Fuses are 3A
 Bracket is to Fig. 8.

Fig. 14; ETI480 Parts List

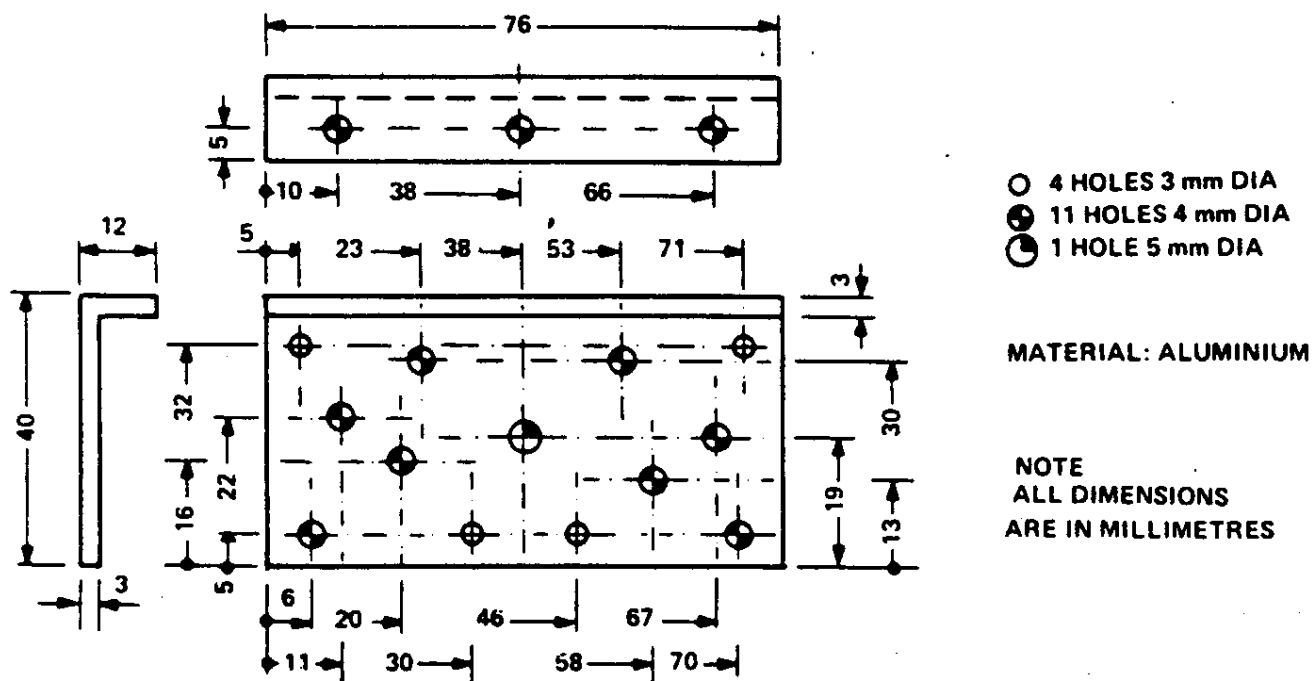


Fig. 9. Heatsink bracket for the 50 W module.

Fig. 9; Heatsink bracket for the 50W module.

