

FIGURE B-2(a) — 3 to 5 Watt Amplifier (NPN Driver)

Component	3 W	5 W
VCC	17	22
R ₆	120 Ω	100 Ω
R10 & R11	0.82	0.66
Q3*	MPSU01 MJE200	MPSU01 MJE200
Q4*	MPSU51 MJE210	MPSU51 MJE210
**Heatsink	MPSU01/51 27.6°C/W	MPSU01/51 16.8°C/W
**Heatsink	MJE200/210 36°C/W	MJE200/210 10.7°C/W

*Parts in same block are interchangeable. P.C. board is for MJE200/210, but can be easily changed to MPSU01/51.

**Heatsink size calculation is based on a maximum ambient temperature of 50°C and a load phase angle of 50 degrees (see test for method of calculation). Heat sink is for both devices on one sink.

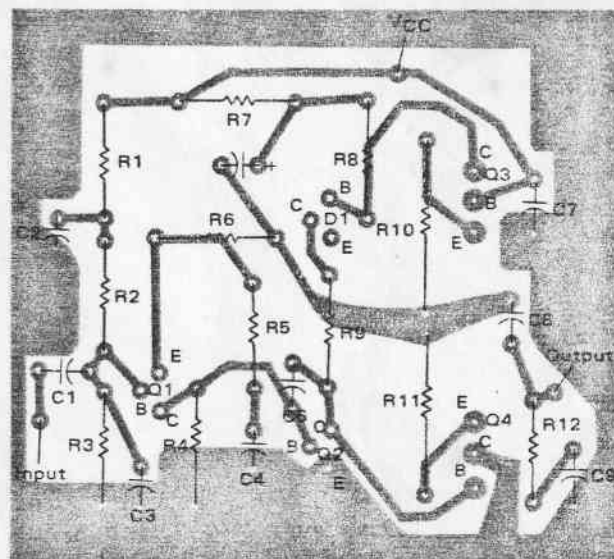


FIGURE B-2(b) — P.C. Board 3 W & 5 W Amplifier (copper side)

TABLE B-2 — Amplifier Performance Characteristics

Reference Figure 2	3 W 18 Vdc	5 W 22 Vdc
1. Idle Current (nominal no-signal)	20 mA	54 mA
2. Current Drain at Rated Power	285 mA	365 mA
3. Typical Input Impedance	300 kohms	320 kohms
4. THD at Rated Output Power 20 Hz or 1 kHz 20 kHz	< 1%	< 1%
5. IM Distortion at 60 and 7000 Hz 4:1 ratio at Rated Power	< 1%	< 1%
6. -3 dB Bandwidth	20 Hz-220 kHz	20 Hz-150 kHz
7. Typical input sensitivity for rated output power	0.22 VRMS	0.23 VRMS
8. Maximum output power at 5% THD without current limiting	4.10 Watts	6.8 Watts
9. Maximum output power at 5% THD with current limiting	4.06 Watts	6.65 Watts
10. Power Supply Ripple Rejection	24 dB	36.4 dB
11. Short Circuit Power Supply Current with Current Limiting	800 mA	1 Amp