

Push-Pull. Class AB1.**Cathode Bias. Ultra-Linear Connection
(40% Tapping Points)**

| | | | |
|-----------------|-------------|-------------|--------|
| Va, g 2(b) | 500 | 375 | V |
| Va, g 2(o) | 436 | 328 | V |
| Ialg2(o) | 2x87 | 2x87 | ma |
| Ialg2(max. sig) | 2x 99 | 2x96 | ma |
| RL(a-a) | 6 | 5 | k ohms |
| Rk* | 2 x 600 | 2 x 400 | ohms |
| -Vg1 | 52 (approx) | 35 (approx) | V |
| Pout | 50 | 30 W | |
| Dtot | 1.5 | 1 % | |
| I. M.** | 4 | 3 % | |
| Palg2(o) | 2 x 38 | 2 x 28.5 | W |
| Palg2(max. sig) | 2 x 17 | 2 x 16 | W |
| Vin(g1-g1)(pk) | 104 | 71 V | |
| Zout | 4.8 | 4.5 | k ohms |

*It is essential to use two separate cathode bias resistors.

**Intermodulation distortion: measured using two input signals at 50 and 6000 hz (ratio of amplitudes 4:1).

Push-Pull. Class AB1.**Fixed Bias. Ultra-Linear Connection.
(40% Tapping Points)**

| | | | |
|-----------------|-------------|-------------|--------|
| Va, g 2(b) | 560 | 460 | V |
| Va, g 2(o) | 553 | 453 | V |
| Ialg2(o) | 2 x 50 | 2 x 50 | ma |
| Ialg2(max. sig) | 2 x 157 | 2 x 140 | ma |
| RL(a-a) | 4.5 | 4 | k ohms |
| -Vg1* | 75 (approx) | 59 (approx) | V |
| Pout | 100 | 70 | W |
| Dtot | 2 | 2 | % |
| I. M.** | 11 | 10 | % |
| Palg2(o) | 2 x 27.5 | 2 x 22.5 | W |
| Palg2(max. sig) | 2 x 33 | 2 x 27 | W |
| Vin(g1-g1)(pk) | 140 | 114 | V |
| Zout | 7 | 6.5 | k ohms |

*It is essential to provide two separately adjustable bias voltage sources, having a voltage adjustment range of 25%.

**Intermodulation distortion: measured using two input signals at 50 and 6000 hz (ratio of amplitudes 4:1).

Push-Pull. Class AB1.**Cathode Bias. Triode Connection.**

| | | | |
|-----------------|-------------|-------------|--------|
| Va, g 2(b) | 400 | 485 | V |
| Va, g 2(o) | 349 | 442 | V |
| Ialg2(o) | 2 x 76 | 2 x 94 | ma |
| Ialg2(max. sig) | 2 x 80 | 2 x 101 | ma |
| RL(a-a) | 4 | 4 | k ohms |
| -Vg1 | 40 (approx) | 50 (approx) | V |
| Pout | 17 | 31 | W |
| Dtot | 5.6 | 1.5 | % |
| I. M.* | 5.6 | 5.6 | % |
| Palg2(o) | 2 x 26.5 | 2 x 40 | W |
| Palg2(max. sig) | 2 x 19 | 2 x 27 | W |
| Rk | 2 x 525 | 2 x 525 | ohms |
| Vin(g1-g1)(pk) | 140 | 114 | V |
| Zout | 2 | 1.9 | k ohms |

Intermodulation distortion: measured using two input signals at 50 and 6000 hz (ratio of amplitudes 4:1).

INSTALLATION

The valve may be mounted either vertically or horizontally.

When a pair of valves is mounted vertically, it is recommended that the centers of the valve sockets are not less than 4 inches apart and that pins 4 and 8 of each valve are in line.

When a pair of valves is mounted horizontally, it is recommended that the centers of the valve sockets are not less than 4 inches apart and that pins 4 and 8 of each valve are in the same vertical line.

Free air circulation around the valve is desirable.

Brimar thermionic products KT88



Filament Heating6.3V
 IH.....1.62A
 Maximum Ratings
 Plate voltage.....800 800 800 800V
 Grid 2 voltage.....600 600 600 600V
 grid 1 voltage.....200 -200 -200 -200V
 Plate power dissipation....42 45 35 40W
 grid 2 power dissipation.. 8 8 6 6W
 Plate + grid 2 dissipation 46 49 40 45W
 cathode current.....230 230 230 230mA
 fV between cathodes 200 200 250 250V

grid 1 resistance For self-biasing

$P_a + Pg_2 < 35W$ $0.47 M^{1/2}$

$P_a + Pg_2 > 35W$ $0.27 M^{1/2}$

For fixed-biasing

$P_a + Pg_2 < 35W$ $0.22 M^{1/2}$

$P_a + Pg_2 > 35W$ $0.10 M^{1/2}$

Capacitance Tetrode config. Triodes config.

Input capacitance.....

16---- 9.3pF

Output capacitance..... 12 ---- 17pF

Muller capacitance..... 1.2 ---- 7.9pF

Parameters Tetrode config.

U_a250V

U_{g2} 250V

a 140mA $I_{g2}(\text{approx})$ 3mA -

$U_{g1}(\text{approx})$15V

G_m 12mA/V

r_i $12K^{1/2}$

u_{g1-g2} 8

