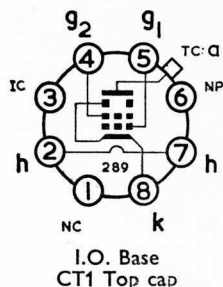


### LINE OUTPUT BEAM TETRODE



#### GENERAL

This valve is an output beam tetrode primarily intended for use in both stabilised and non-stabilised time base output stages of AC/DC, 405/625 line television receivers with series connected heaters.

|                |       |     |   |
|----------------|-------|-----|---|
| Heater Current | $I_h$ | 0.3 | A |
| Heater Voltage | $V_h$ | 25  | V |

#### RATINGS

|                                                   |                       |                  |
|---------------------------------------------------|-----------------------|------------------|
| Maximum Anode Dissipation                         | $P_a(\max)$           | See rating chart |
| Maximum Screen Grid Dissipation                   | $P_{g2}(\max)$        | See rating chart |
| Maximum Peak Anode Voltage (Pulse positive)       | $V_a(pk)\max$         | 7*† kV           |
| Maximum Anode Supply Voltage                      | $V_a(b)\max$          | 550 V            |
| Maximum Anode Voltage                             | $V_a(\max)$           | 250 V            |
| Maximum Peak Screen Grid Voltage (Pulse negative) | $V_{g2}(pk)\max$      | 2* kV            |
| Maximum Screen Grid Voltage                       | $V_{g2}(\max)$        | 250 V            |
| Maximum Heater to Cathode Voltage (R.M.S.)        | $V_{h-k}(r.m.s.)\max$ | 200‡ V           |
| Maximum Cathode Current                           | $I_k(\max)$           | 200 mA           |
| Maximum Grid to Cathode Resistance                | $R_{g1-k}(\max)$      | 3.3** MΩ         |

\* The pulse ratings are for television line scan where the applied voltage pulse does not exceed 22 per cent of one scanning cycle or 18  $\mu$ s duration.

\*\* For television line scan applications.

† 7 kV is a design centre rating, the absolute rating of 8.5 kV must not be exceeded.

‡ Measured with respect to the higher potential heater pin.

#### INTER-ELECTRODE CAPACITANCES

|                 |            |      |      |     |    |
|-----------------|------------|------|------|-----|----|
| Grid 1 to Earth | $C_{in}$   | 18   | 18.5 | 20  | pF |
| Anode to Earth  | $C_{out}$  | 11   | 12   | 12  | pF |
| Anode to Grid 1 | $C_{a-g1}$ | 0.25 | 0.3  | 0.3 | pF |

§ In fully shielded socket without can.

φ With holder capacitance balanced out. (Holder as below.)

|| Total capacitance including McMurdo amphenol international octal holder type B8/U.

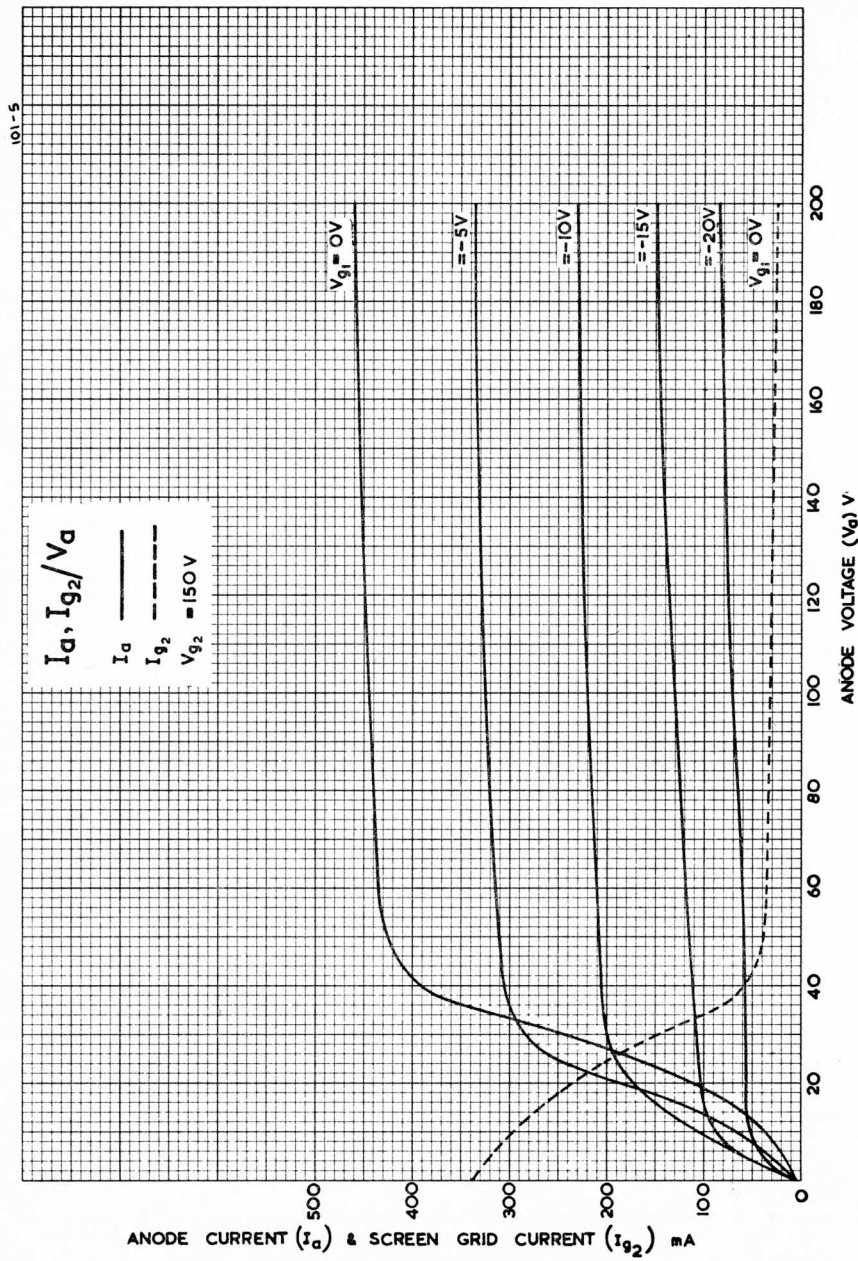
"Earth" denotes the remaining earthy potential electrodes, heater and shields joined to cathode.

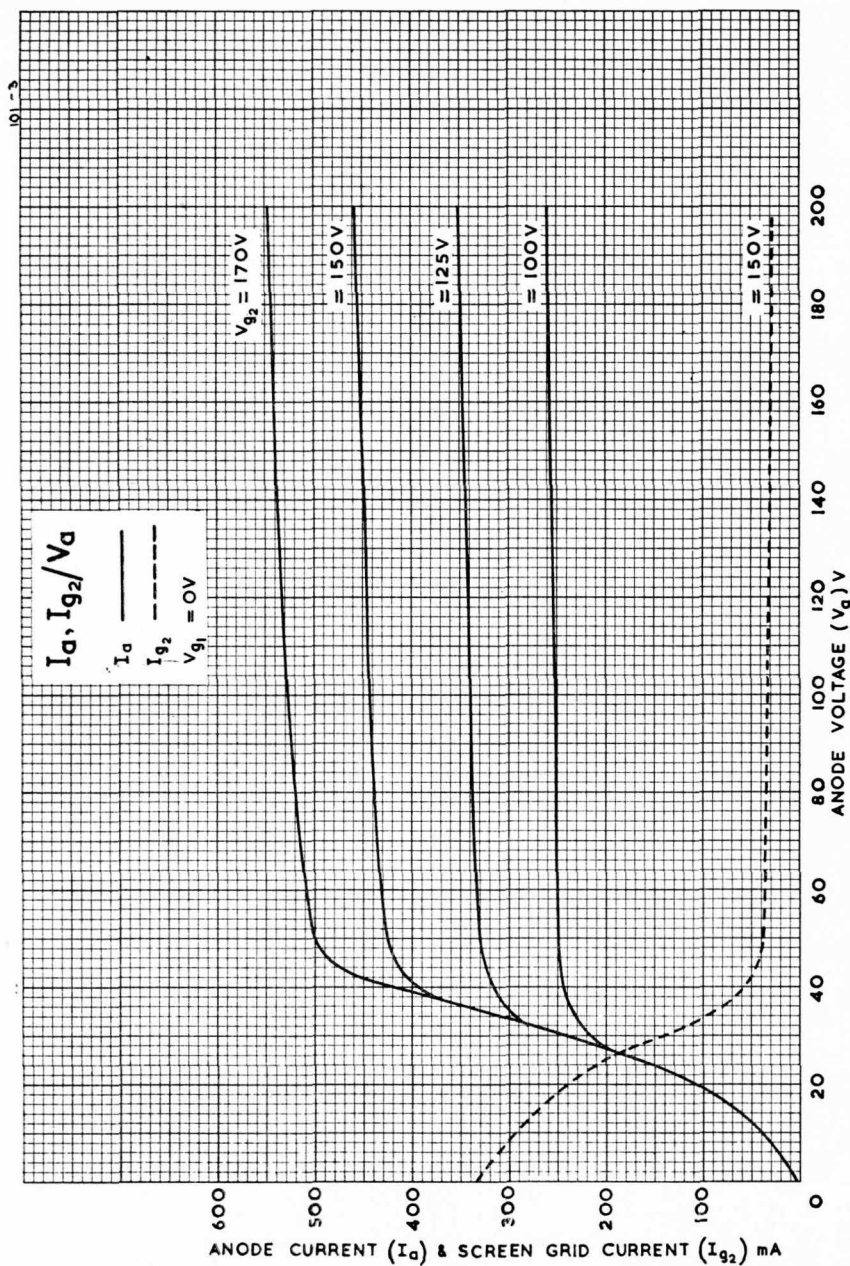
#### MOUNTING POSITION—Unrestricted

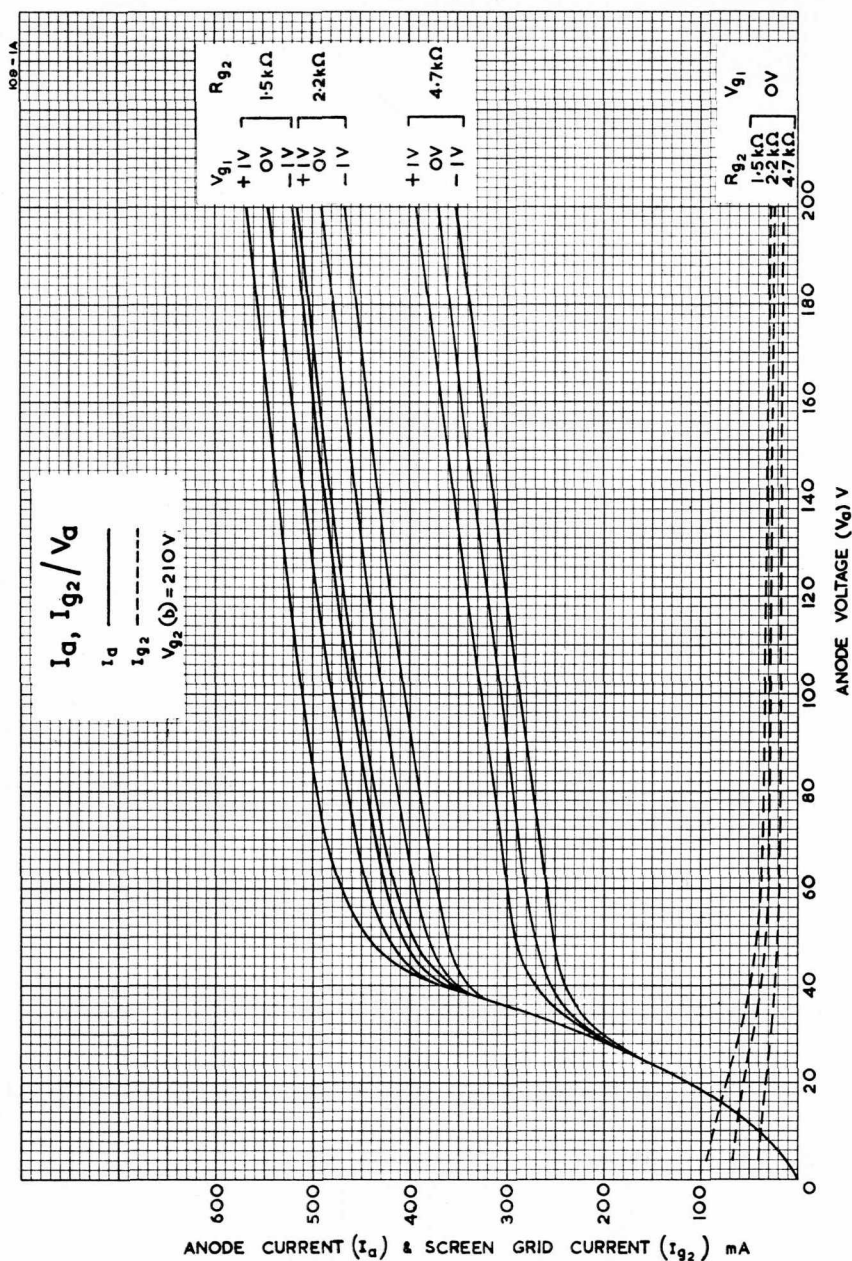
If mounted horizontally it is recommended that pins 4 and 8 should be in a vertical plane.

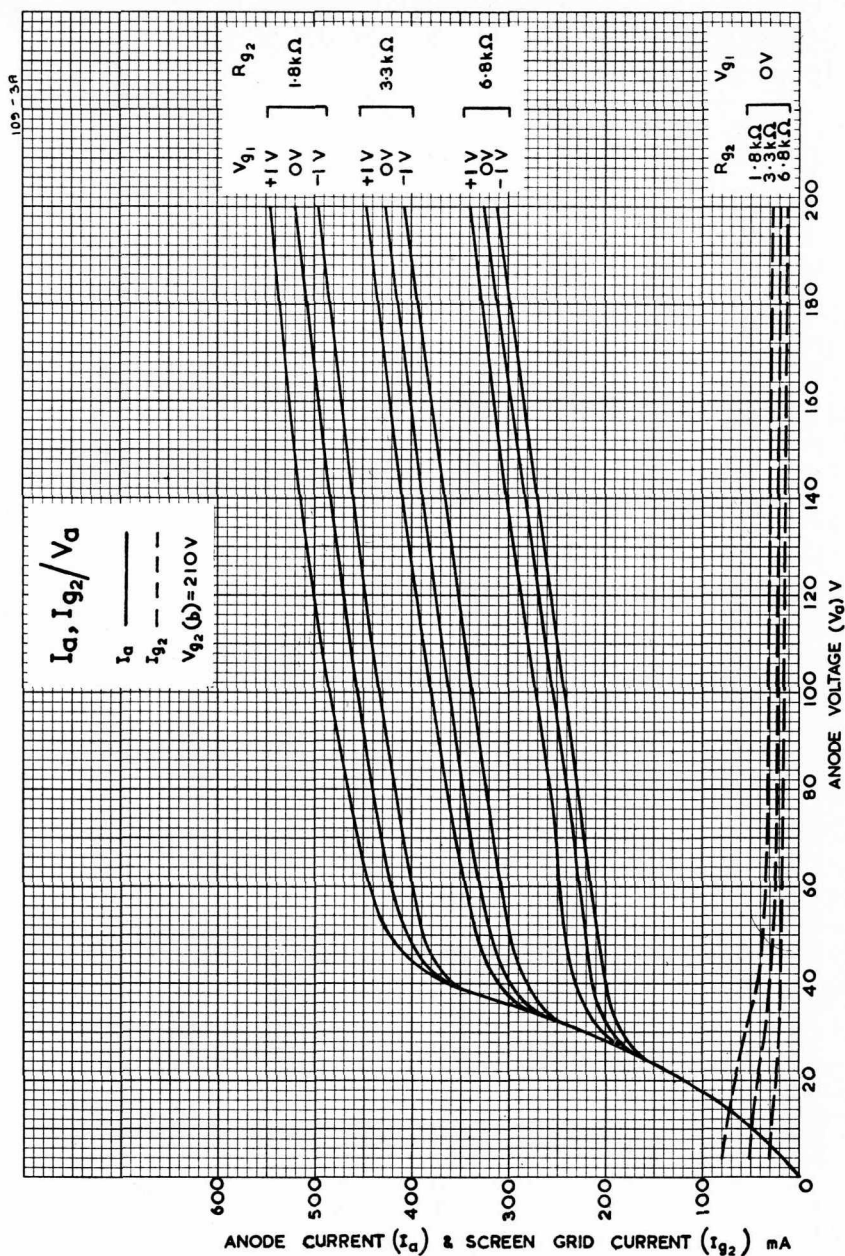
#### APPROXIMATE WEIGHT

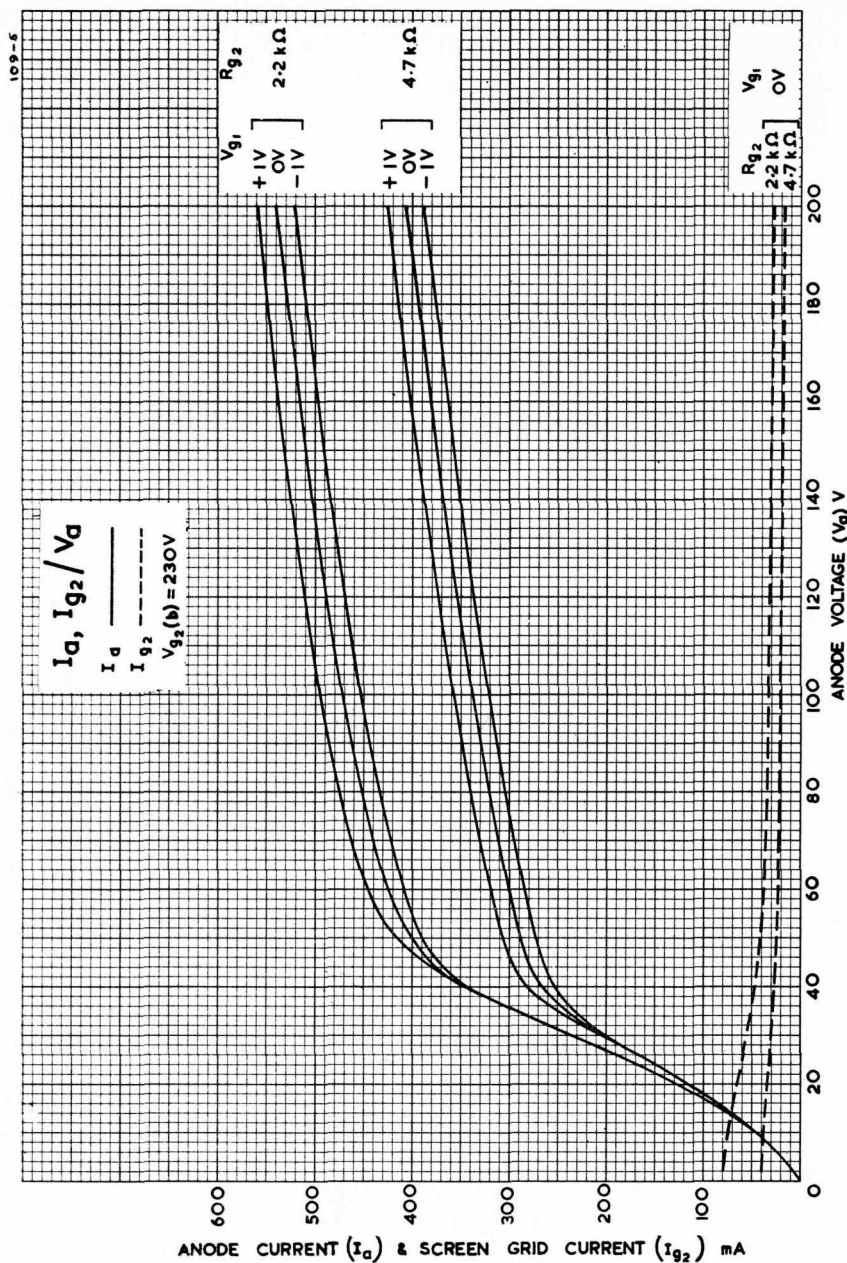
|        |     |    |
|--------|-----|----|
| Net    | 1.5 | oz |
| Packed | 4   | oz |

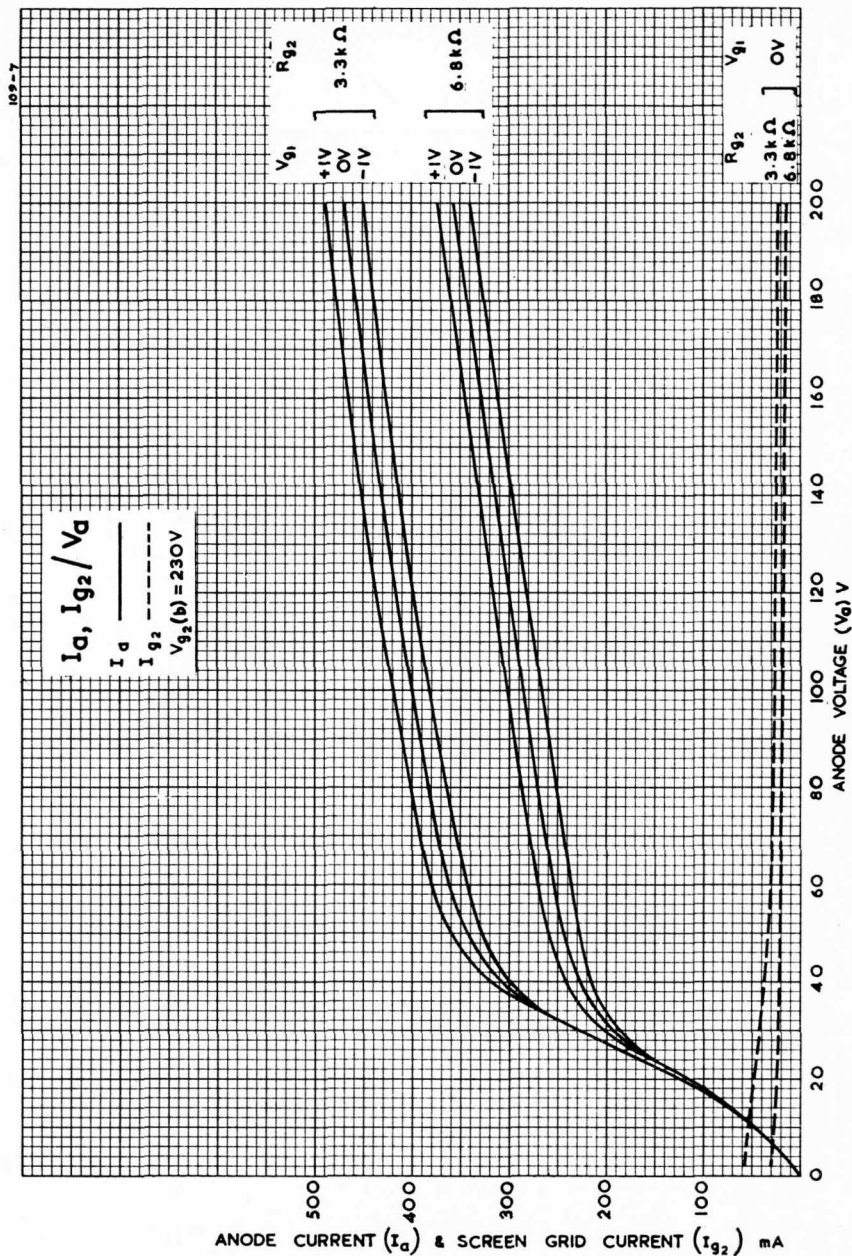


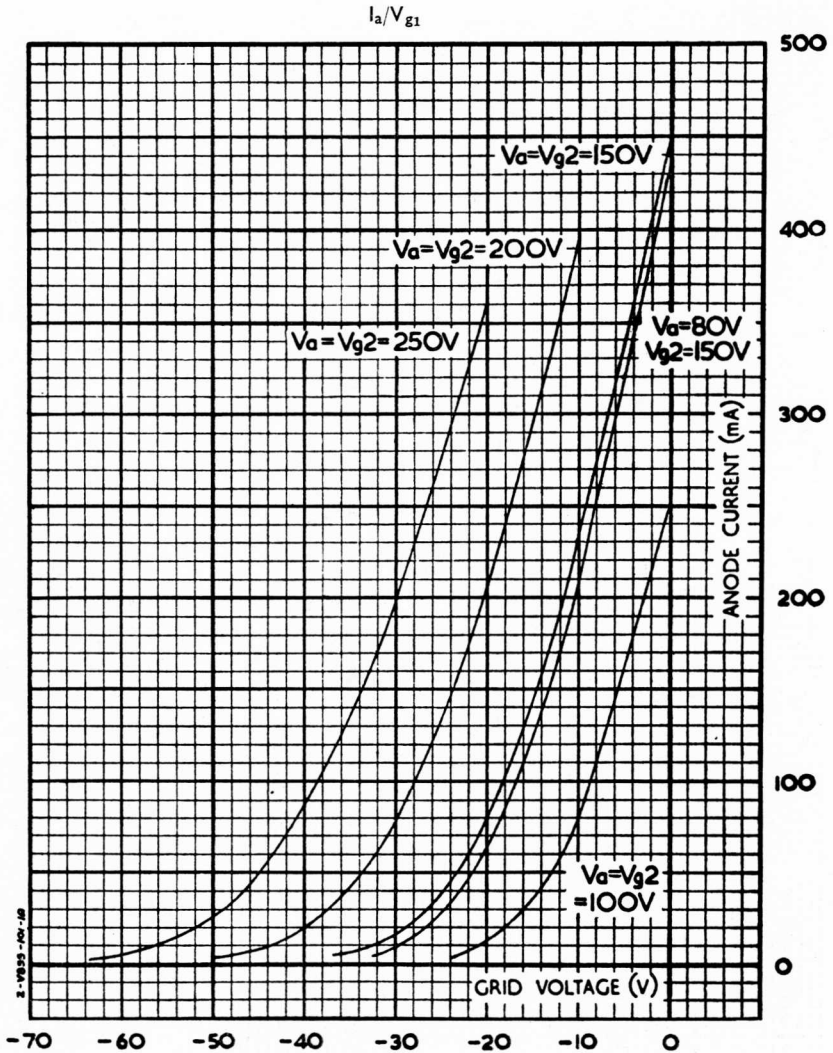


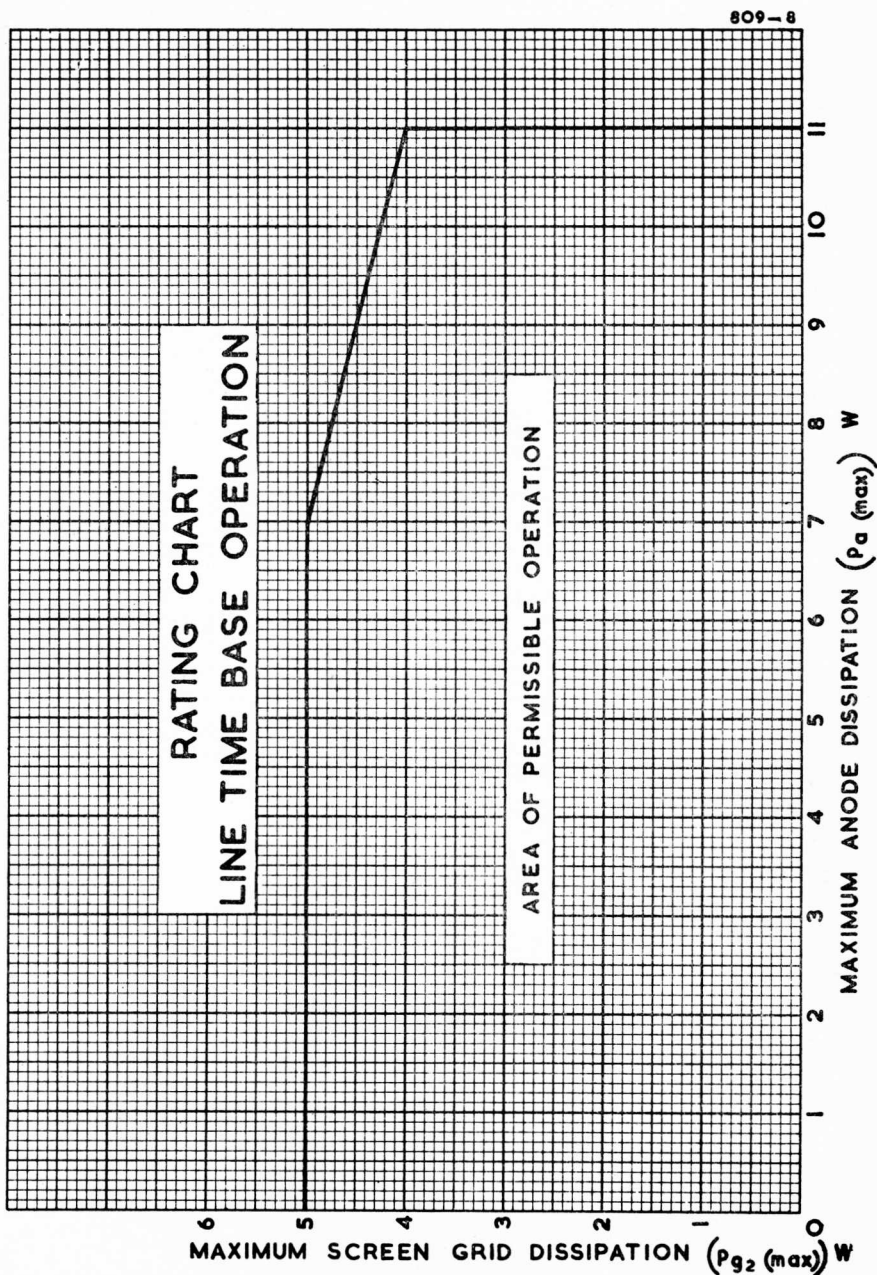


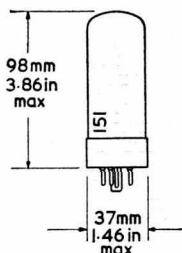




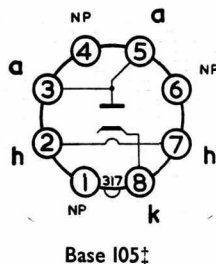








### HALF-WAVE RECTIFIER



### GENERAL

This indirectly heated half-wave rectifier is for use in television receivers employing series connected 0.3A heaters.

|                |       |      |   |
|----------------|-------|------|---|
| Heater Current | $I_h$ | 0.3  | A |
| Heater Voltage | $V_h$ | 29.0 | V |

### RATINGS

|                                        |                     |      |         |
|----------------------------------------|---------------------|------|---------|
| Maximum Peak Inverse Voltage           | $PIV_{max}$         | 700  | V       |
| Maximum Anode Voltage (R.M.S.)         | $V_a(r.m.s.)_{max}$ | 250  | V       |
| Maximum Mean Anode Current             | $I_a(av)_{max}$     | 325  | mA      |
| Maximum Peak Anode Current             | $i_a(pk)_{max}$     | 2.6  | A       |
| Maximum Surge Anode Current            | $i_a(surge)_{max}$  | 9.5  | A       |
| Maximum Reservoir Capacitor            | $C_{max}$           | 200  | $\mu F$ |
| Maximum Peak Heater to Cathode Voltage | $V_{h-k(pk)_{max}}$ | 625* | V       |

\* Measured with respect to the higher potential heater pin.

Maximum D.C. component = 275V, Maximum A.C. component = 250V r.m.s.

### TYPICAL OPERATION†

|                                   |                  |     |     |     |     |     |     |          |
|-----------------------------------|------------------|-----|-----|-----|-----|-----|-----|----------|
| Input Anode Voltage (R.M.S.)      | $V_{in(r.m.s.)}$ | 200 | 210 | 220 | 230 | 240 | 250 | V        |
| Output Current                    | $I_{out}$        | 325 | 325 | 295 | 270 | 240 | 220 | mA       |
| Reservoir Capacitor               | C                | 200 | 200 | 200 | 200 | 200 | 200 | $\mu F$  |
| Minimum Surge limiting resistance | $R_{lim(min)}$   | 15  | 17  | 19  | 21  | 23  | 25  | $\Omega$ |
| Output Voltage                    | $V_{out}$        | 209 | 219 | 234 | 249 | 264 | 280 | V        |

† For television receiver conditions see curves.

### MOUNTING POSITION—Unrestricted.

‡ Some PY33 valves may have an 107 base having pins 1 and 6 : NC.