

FERRANTI

FULL WAVE RECTIFIER

A directly heated, high vacuum full wave rectifier.

PHYSICAL DETAILS.

Base	...	...	International Octal.
Bulb	...	...	Clear.
Max. Overall Length	...	...	100 mm. ($3\frac{1}{2}$ in.).
Max. Seated Height	...	...	86 mm. ($3\frac{3}{8}$ in.).
Max. Diameter (Base)	...	...	30 mm. ($1\frac{1}{8}$ in.).
Mounting Position	...	...	Vertical, base down ; or horizontal with pins 1 and 2 in verti- cal plane.

BASE CONNECTIONS.

Pin 1—Filament.	Pin 3—Anode 1.
Pin 2—Anode 2.	Pin 4—Filament.

FILAMENT.

Filament Voltage	...	...	5.0 volts.
Filament Current	...	...	2.0 amps.

RATINGS*

Max. Peak Inverse Voltage	...	1400 volts.
R.M.S. Anode Supply Voltage	...	See Rating Chart.
Rectified Current	...	See Rating Chart.
Min. Limiting Resistance	...	50 ohms.
Max. Peak Anode Current	...	400 mA.
†Max. Hot-switching Transient Anode Current	...	2.2 amps.

TYPICAL OPERATION.

Capacitor-Input Filter.

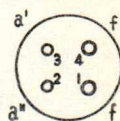
*R.M.S. Input Voltage	...	350	500 volts.
Filter-Input Capacitor	...	10	10 μ F.
*Min. Supply Impedance	...	50	140 ohms.

DC. Output Voltage at Input to Filter (approx.) :—

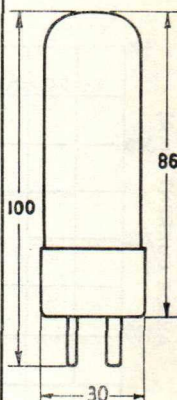
At Half-Load	62.5 mA.	390	—	volts.
Current of	42 mA.	—	610	volts.
At Full-Load	125 mA.	350	—	volts.
Current of	84 mA.	—	560	volts.
Voltage Regulation, Half-load to Full-load Current (approx.)		40	50	volts.

*Each anode.

†For maximum duration of 0.2 sec.



**Base
Connections**
**Underside View
of Base**



All dimensions
shown are in
millimetres
(max.).

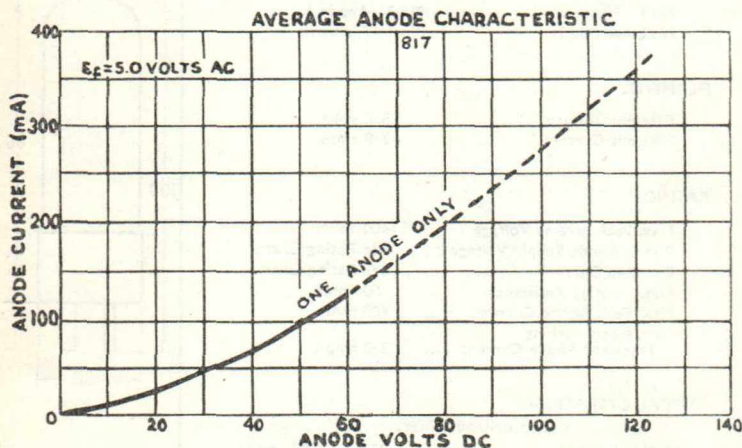




TYPICAL OPERATION (cont.)

Choke-Input Filter.

Filter-Input Choke	...	...	350	500	volts.
R.M.S. Input Voltage per anode			10*	10†	henries.
DC. Output Voltage at Input to Filter (approx.) :-					
At Half-Load	{	75 mA.	270	—	volts.
Current of	{	62.5 mA.	—	405	volts.
At Full-Load	{	150 mA.	245	—	volts.
Current of	{	125 mA.	—	390	volts.
Voltage Regulation, Half-load to Full-load Current (approx.)					
			25	15	volts.



*This value is adequate to maintain optimum regulation in the region to the right of line $L = 10H$ on curve Operation Characteristics with Choke-Input Filter, provided the load current is not less than 35 mA. For load currents less than 35 mA., a larger value of inductance is required for optimum regulation.

†This value is adequate to maintain optimum regulation in the region of the right of line $L = 10H$ on curve Operation Characteristics with Choke-Input Filter, provided the load current is not less than 50 mA. For load currents less than 50 mA., a larger value of inductance is required for optimum regulation.

For Rating Chart and Operation Characteristics see type 5Y3GT which is electrically identical.