



AC2/PEN.

A.C. MAINS OUTPUT PENTODE

RATING.

Heater Voltage	...	...	...	...	...	4.0
Heater Current (Amps.)	...	...	...	...	...	1.75
Maximum Anode Voltage	...	...	...	...	...	250
Maximum Screen Voltage	...	...	...	...	...	250
Maximum Anode Dissipation (watts)	...	...	...	...	...	10.0
*Mutual Conductance (mA/V)	...	...	...	...	...	8.0

* Taken at $E_a = 100$; $E_g = 0$.

TYPICAL OPERATION.

Anode Voltage	...	...	...	...	...	250
Screen Voltage	...	...	...	...	...	250
Grid Voltage	...	...	...	...	...	5.3
Anode Current (mA)	...	...	...	...	...	32.0
Screen Current (mA) (approx.)	...	...	...	...	...	6.0
Optimum Load Resistance (ohms)	...	...	...	...	...	6,700
Self-Bias Resistance (ohms)	...	...	...	...	...	140
Maximum Undistorted Power Output (watts)	...	...	...	...	...	3.5
Input Swing (Volts R.M.S.)	...	...	...	...	...	3.2

DIMENSIONS.

Maximum Overall Length	...	...	...	...	...	133 mm.
Maximum Diameter	...	...	...	...	...	54 mm.

GENERAL.

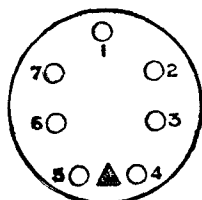
The AC2/PEN is an indirectly heated output pentode for use in A.C. mains receivers. The valve is fitted with a standard 7-pin base, the connexions to which are given overleaf.

APPLICATION.

In receivers employing diode A.V.C. it is possible to obtain ample power output by feeding the AC2/PEN direct from the diode without an intermediate L.F. stage. Owing to the low anode to grid capacity of the valve, transformer or resistance capacity coupling may be used without appreciable high note loss. It is essential to decouple the grid circuit in order to avoid loss in the lower register, and this may be done by connecting a 50 mfd. electrolytic condenser across the self-bias resistance, or by the usual resistance condenser filter in the grid circuit. The grid bias must be obtained by means of a self-bias resistance in series with the cathode. It is recommended that a condenser filter be connected across the primary winding of the output transformer in order to prevent increase of load impedance with rising frequency. Suitable values are 7,000 ohms and .01 to .015 mfd. A resistance of approximately 50 ohms should be inserted in the anode circuit close to the anode pin to prevent parasitic oscillations. The resistance of the grid to cathode circuit should not exceed 1 megohm.

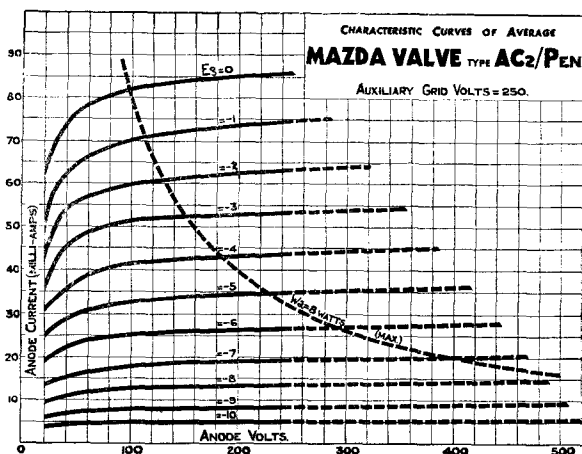
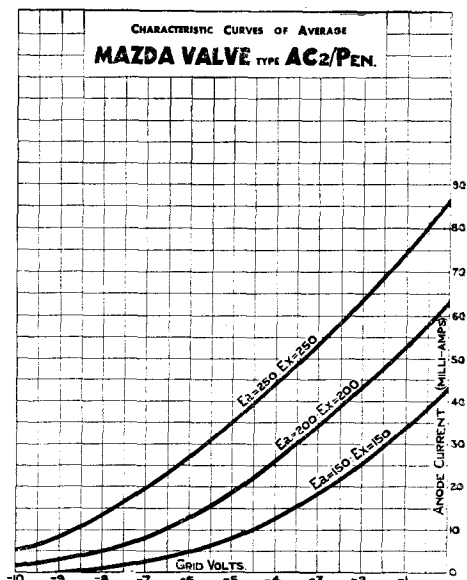


BASING.



- Pin No. 1. _____
 2. Control Grid.
 3. Screen.
 4. Heater.
 5. Heater.
 6. Cathode.
 7. Anode.

Viewed from the free end of the base.



Mazda Radio Valves are manufactured in Great Britain for the British Thomson-Houston Co., Ltd., London and Rugby, and distributed by

THE EDISON SWAN ELECTRIC CO., LTD.
 155, CHARING CROSS ROAD, LONDON, W.C.2

