



AC2/PEN.DD

A.C. MAINS DOUBLE DIODE OUTPUT PENTODE

RATING.

Heater Voltage	...	...	...	...	...	...	4.0
Heater Current (Amps.)	...	...	...	...	...	...	2.0
Maximum Anode Voltage	...	...	...	...	...	...	250
Maximum Screen Voltage	...	...	...	...	...	...	250
Maximum Anode Dissipation (watts)	...	...	...	...	...	...	10.0
*Mutual Conductance (mA/V)	...	...	...	...	...	...	8.0

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

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
Delay Voltage	...	...	...	...	...	...	10.5

* For 5 per cent. Second Harmonic and Third Harmonic not exceeding 5 per cent.

DIMENSIONS.

Maximum Overall Length	...	...	...	...	...	146 mm.
Maximum Diameter	...	...	...	...	...	54 mm.

GENERAL.

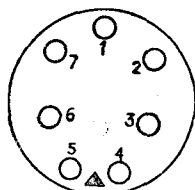
The AC.2/PEN DD is an indirectly heated double diode output pentode for use in A.C. mains receivers. In operation the two diodes and the pentode are independent of each other except for the common cathode sleeve, and the two sections may be treated as two separate valves. The valve is fitted with a standard 7-pin base, the connexions to which are given overleaf.



APPLICATION.

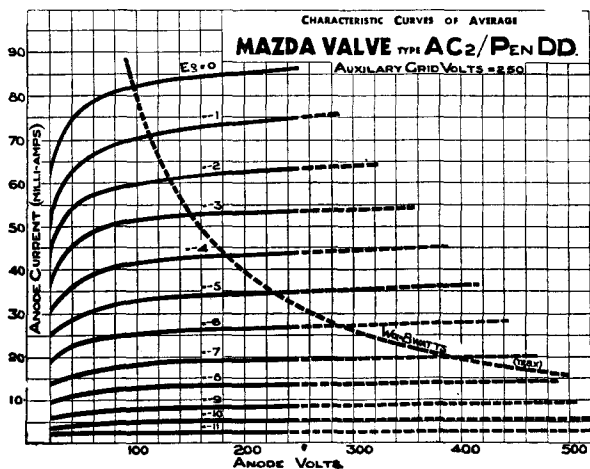
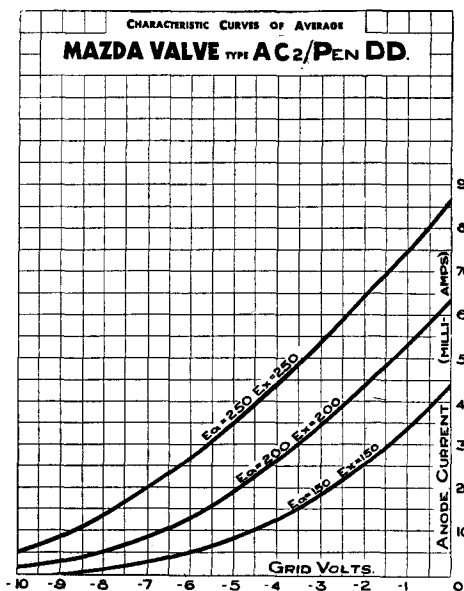
The AC2/PEN DD is suitable for use in practically any circuit where delayed A.V.C. is required, and by its use it is possible to dispense with an intermediate L.F. stage. In order to obtain maximum power output, care should be taken to prevent R.F. voltages being applied to the grid of the pentode, and it is most satisfactory in practice to insert an H.F. choke between the diode anode and the diode load resistance. In addition a .001 mfd. condenser is desirable between the anode and cathode of the pentode. A resistance of approximately 50 ohms should be inserted in the anode circuit, close to the anode pin, and the lowest reflected speech coil impedance should be equal to the optimum load. It is recommended that a delay voltage of the order of 10—15 should be employed. The resistance of the grid to cathode circuit should not exceed 1 megohm.

BASING.



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

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.**



===== **EDISWAN RADIO** =====