MAZDA

VP.41

A.C. MAINS H.F. PENTODE

RATING.

Heater Voltage	4·0
Heater Current (amps)	0·65
Maximum Anode Voltage	250
Maximum Screen Voltage	250
*Mutual Conductance (mA/V)	3·0

*Taken at Ea=250 ; Es=200 ; Eg=0.

TYPICAL OPERATION.

Anode Voltage	250	250
Screen Voltage	200	250
Grid Bias Voltage	2·7	4·0
Anode Current (mA)	7·7	8·6
Screen Current (mA)	2·0	2·3
Mutual Conductance (mA/V)	2·0	2·0
Anode A.C. Resistance (ohms)	1·3	1·2
Grid Bias for Mutual Conductance 10uA/v	35·4	44·2
Input Capacity Working ($\mu\mu$F)	7·8	7·8
Change in Input Capacity produced by biasing the valve to cut-off (▲.C.) ($\mu\mu$F)	1·1	1·1
Input Loss at 45 Mc (ohms)	10,000	10,000
†Maximum Peak Carrier Input Volts	8·0	10·0
Grid Bias for M.P.C.I.	33·0	41·0

†For 5 per cent. Total Harmonic Distortion at 60 per cent. Modulation.

INTER-ELECTRODE CAPACITIES.

*Anode to Earth	11·5 $\mu\mu$F
*Grid to Earth	6·5 $\mu\mu$F
Anode to Grid	0.0025 $\mu\mu$F

*"Earth" denotes the remaining earthy potential electrodes and metallising joined to cathode.

DIMENSIONS.

Maximum Overall Length	105 mm.
Maximum Diameter	32 mm.

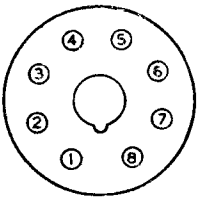
GENERAL.

The VP.41 is a variable-mu screened pentode designed for use in A.C. Mains receivers, and is particularly suitable for use in the H.F. stage of television receivers when a variable-mu characteristic is required. Modulation hum has been eliminated due to the provision of a non-inductive heater. The bulb is of small dimensions and metallised. The valve is fitted with a British Octal Base, the connections to which are given overleaf.

APPLICATION.

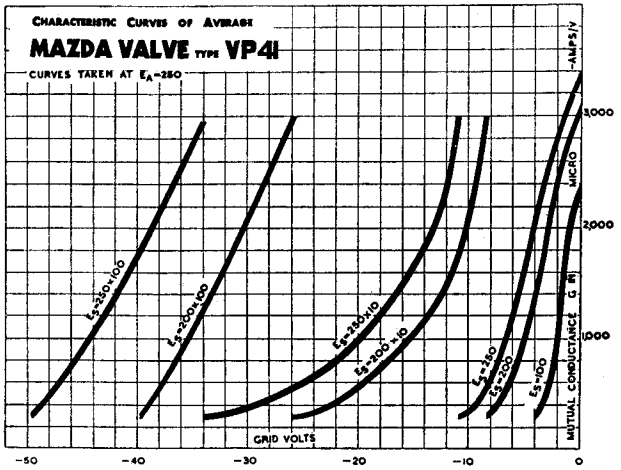
The valve has a large signal handling capacity, and will accept a modulated signal of over 10 volts peak carrier at bias without distortion, and cross-modulation has been reduced to a very low value for all values of grid bias. Under normal conditions the valve should be operated with self bias on the cathode, and the screen fed either directly from the H.T. line or through a series dropping resistance, according to whether it is necessary to decouple the screen from the point of view of stability. In the H. F. stage an initial screen voltage of 200 will prove satisfactory. When the valve is employed in the I.F. stage it is essential to apply only a fraction of the A.V.C. voltage to the last I.F. valve, unless a local distance switch is employed. When used with the TH.41 valve approximately half the A.V.C. voltage should be employed.

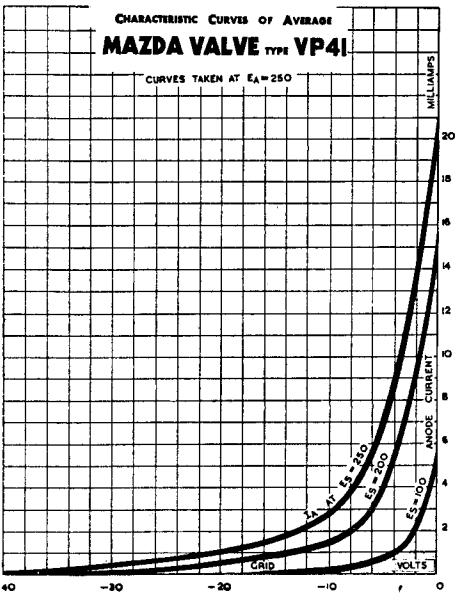
BASING.



Viewed from the free end of the base.

Pin No. 1. Heater.
2. Cathode.
3. Anode.
4. Screen.
5. Suppressor Grid.
6. Metallising.
7. Omitted.
8. Heater.
Top Cap. Control Grid.





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