AC/SP 3

A.C. MAINS H.F. PENTODE

RATING.

Heater Voltage	4.0
Heater Current (Amps.)	1.0
Maximum Anode Voltage	250
Maximum Screen Voltage	250
*Mutual Conductance (mA/V)	7.5

* Taken at Ea=250; Es=100; Eg=-1.5

TYPICAL OPERATING CONDITIONS.

Anode Voltage	250	250	250	250
Screen Voltage	80	100	160	200
Grid Bias	1.25	1.7	2.75	3.5
Anode Current (mA)	7.8	7.9	10.5	12.3
Screen Current (mA)	2.45	2.50	3.3	3.85
Mutual Conductance (mA/V)	7.0	7.0	7.45	7.6
Anode A.C. Resistance (megohms)	0.55	0.55	0.4	0.34
Input Capacity (hot) ($\mu\mu$F.)	20	19.9	19.7	19.5

INTER-ELECTRODE CAPACITIES (cold).

*Anode to Earth	11.0 $\mu\mu$F.
*Grid to Earth	14.5 $\mu\mu$F.
Anode to Grid	.005 $\mu\mu$F.

*"Earth" denotes all remaining electrodes and metallising joined to cathode.

DIMENSIONS.

Maximum Overall Length	129 mm.
Maximum Diameter	39 mm.

GENERAL.

The AC/SP 3 is an indirectly heated screened H.F. Pentode for use on A.C. Mains. The valve is intended for use in short wave receivers and especially television receivers. The valve is fitted with a standard 7 pin base, the connexions to which are given overleaf.

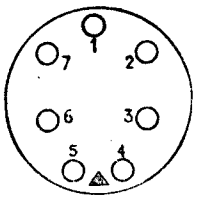
APPLICATION.

The AC/SP 3 is equally suitable for use in radio frequency, I.F. and video frequency stages. In the latter it will develop sufficient voltage swing to modulate an Ediswan Cathode ray tube when fed from a Mazda D1. Owing to its high working slope a very good stage gain can be obtained from the valve with normal precautions against stray capacity in the wiring of the circuit.

For R.F. and I.F. stages the recommended screen voltage is 80—100 volts, and the value of the grid leak should be as low as possible.

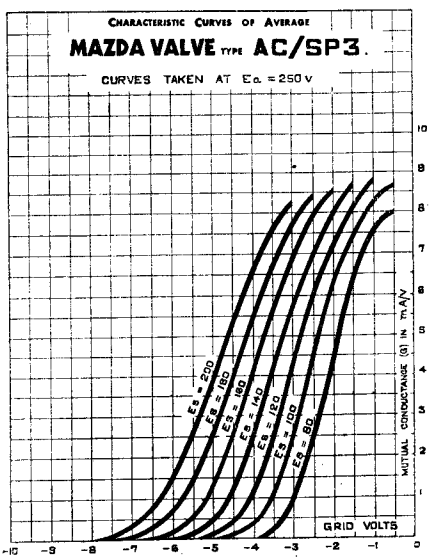
Video Frequency Output Stages.—When fed from a diode with zero bias the screen voltage should not exceed 140. The quiescent anode current under these conditions will be of the order of 30 mA. For screen voltages between 160 and 200 volts the anode current should not be allowed to exceed 14 mA. In all cases the grid resistance should not exceed a few thousand ohms.

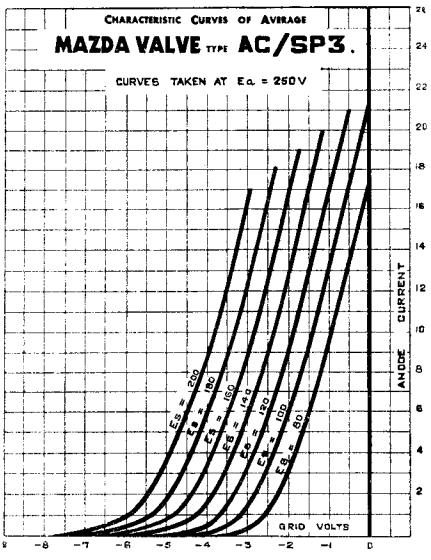
BASING.



Viewed from the free end of the base.

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





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

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