MAZDA

SP.210

BATTERY SCREENED H.F. PENTODE

RATING.

Filament Voltage	2·0
Filament Current (amps.)	0·1
Maximum Anode Volts	150
Maximum Screen Volts	150
*Mutual Conductance (mA/V)	1·7

*Ea=120 ; Es=120 ; Eg=0.

OPERATING CONDITIONS.

Anode Voltage	120	120
Screen Voltage	60	120
Grid Bias	0	1
Anode Current (mA)	0·55	1·1
Screen Current (mA)	0·16	0·33
Mutual Conductance (mA/V)	0·9	1·2
Anode AC. Resistance (megohms)	4·0	2·0

INTER-ELECTRODE CAPACITIES.

*Anode to Earth	11·0 $\mu\mu$F
*Grid to Earth	10·0 $\mu\mu$F
Anode to Grid	0·005 $\mu\mu$F

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

DIMENSIONS.

Maximum Overall Length	125 mm.
Maximum Diameter	39 mm.

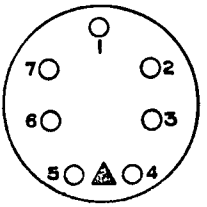
GENERAL.

The SP.210 is a screen grid H.F. Pentode for use in battery operated receivers. The bulb is metallised. The valve is fitted with a standard 7-pin base, the connections to which are given overleaf.

APPLICATION.

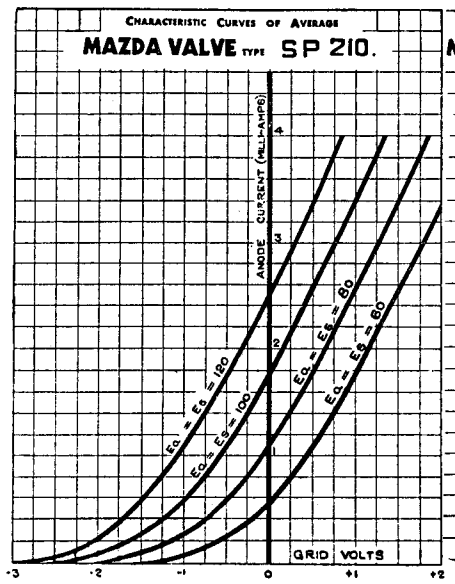
The valve is specially suitable for use as a cumulative grid or anode bend detector, or as an H.F. amplifier when a variable-mu characteristic is not desired. When used as the former, a screen voltage of 50-60 volts is recommended. This should be preferably obtained by means of a dropping resistance from the full H.T. supply, as this reduces detector overloading to a great extent. A grid leak of the order of 1 to 2 megohms with a condenser of about 0·00005 to ·0001 μF. should be connected in series with the control grid in order to provide self bias, and the grid return should be connected to L.T. positive. In battery superheterodyne receivers the discard point of the high tension battery occurs when the frequency changer stops oscillating, and the oscillator circuits must, therefore, be designed to operate with a high tension voltage equal to the desired discard point of the high tension battery. In practice this is generally taken to be approximately 60 per cent. of the initial voltage.

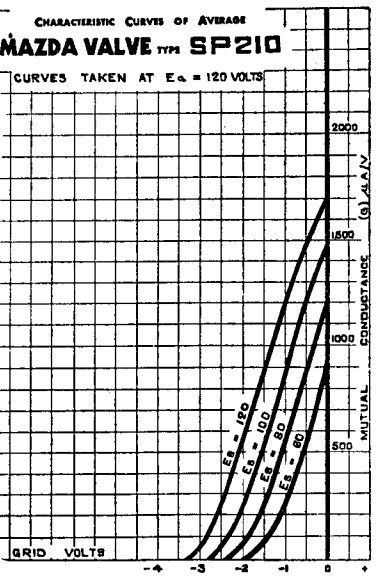
BASING.



Viewed from the free end of the base.

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





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