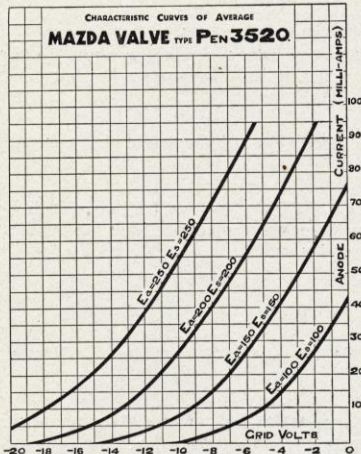


MAZDA

PEN 3520

AC/DC Indirectly heated Pentode



RATING.

Heater Voltage	...	...	...	...	35.0
Heater Current (Amps.)	...	...	...	...	0.2
Maximum Anode Voltage	...	...	...	...	250
Maximum Screen Voltage	...	...	...	...	250

OPERATING CONDITIONS.

Anode Voltage	...	...	...	185	...	200
Screen Voltage	...	...	...	185	...	200
Anode Current (mA)	...	...	...	36.5	...	40
Bias Voltage	...	...	...	7.25	...	8
Optimum Load (ohms)	...	...	...	4,400	...	4,250

DIMENSIONS.

Maximum Overall Length	...	...	...	132 m.m.
Maximum Diameter	...	...	...	54 m.m.

PRICE 18/6

GENERAL.

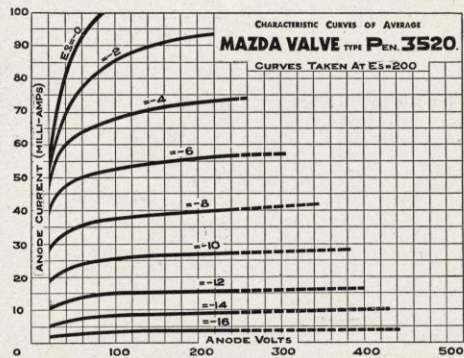
The Mazda Type Pen3520 is a high sensitivity indirectly heated pentode with high power output. It is suitable for use in AC/DC receivers.

APPLICATION.

For maximum power the anode and screen voltages should be maintained as high as possible.

Self bias must be employed and should be obtained by inserting a resistance of 165 ohms in the cathode lead.

When this valve is used in AC/DC receivers, the grid to cathode resistance must not exceed 0.5 megohms; this resistance may be increased to one megohm in receivers intended only for D.C. mains operation.



THE EDISON SWAN ELECTRIC CO. LTD.
 Radio Division Showrooms:
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MAZDA

PEN 3520

The lowest reflected speaker speech coil impedance in the audio frequency range should be equal to the optimum load and under no circumstances should the anode load be less than optimum as the harmonic content of the output will rise above 5% under these conditions.

A resistance of approximately 50 ohms should be inserted in the anode circuit close to the anode pin to prevent parasitic oscillations.

It is recommended that for an R.K. speaker a high note filter consisting of 5,000 ohms and 0.01 μ F, should be connected across the primary of the output transformer to prevent over accentuation of the high frequencies; the actual values required will vary with the type of receiver and speaker used.

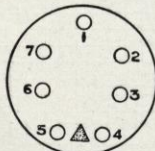
HEATER VOLTAGE.

The heater is designed to operate at 0.2 amps. and the series heater resistance should be such that the filament current has this value at average line voltage.

It should be remembered that the permissible variation of mains voltage is much less when valves are series connected so that care should be taken to ensure that the series resistance has the correct value. Taps should be provided every 10 volts to cover the 200 to 250-volt range.

CONNECTIONS TO BASE.

A standard B.V.A. 7-pin base is fitted, the pins being connected as under.



VALVE BASE (NOT SOCKET)

Pin 1.—Blank.
Pin 2.—Control Grid.
Pin 3.—Screen Grid.

Pins 4 & 5.—Heaters.
Pin 6.—Cathode.
Pin 7.—Anode.

