

MAZDA

6.P.25

BEAM POWER AMPLIFIER

Indirectly heated - for parallel operation

6.P.25

RATING

Maximum Heater Voltage (volts)	V_f	6.3
Maximum Heater Current (amps)	I_f	1.1
Maximum Anode Voltage (volts)	V_a	250
Maximum Anode Dissipation (watts)	$W_a(\max)$	10
Maximum Screen Voltage (volts)	V_{g2}	250
Maximum Screen Dissipation (watts)	$W_{g2}(\max)$	2.5
Mutual Conductance (mA/V)	S_m	* 9.0
Inner Mu	μ_{g1-g2}	* 17.5
Maximum Potential Heater/Cathode (volts DC)	$V_{h-k}(\max)$	150

* Taken at $V_a = V_{g2} = 100v$; $V_{g1} = 0v$.

INTER-ELECTRODE CAPACITANCES

Anode/Earth ($\mu\mu F$)	C_{out}	12
Anode/Grid ($\mu\mu F$)	C_{a-g1}	0.85
Grid/Earth ($\mu\mu F$)	C_{in}	23

"Earth" denotes the remaining earthy potential electrodes, heater and metallizing joined to cathode.

DIMENSIONS

Maximum Overall Length (mm)	123
Maximum Diameter (mm)	45
Maximum Seated Height (mm)	109
Approximate Nett Weight (ozs)	2
Approximate Packed Weight (ozs)	3

Apart from the heater characteristics and basing, the characteristics of the 6.P.25 are identical with the Pen.45.

MOUNTING POSITION - Unrestricted.

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TYPICAL OPERATION

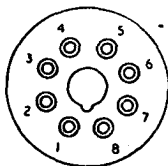
Anode Voltage (volts)	V_a	250	
Screen Voltage (volts)	V_{g2}	250	
Grid Bias Voltage (volts -ve)	V_{g1}	8.5	
Quiescent Anode Current (mA)	$I_a(o)$	40	
Quiescent Screen Current (mA)	$I_{g2}(o)$	8.0	
Power Output (watts)	W_{out}	4.5	† 5.4
Anode Load (ohms)	Z_a	5000	† 4700
Input Swing R.M.S.	$V_{g1}(rms)$	4.3	† 5.1
Anode Current (mA) (with Input Swing)	$I_a(av)$	42	† 43
Input Swing (volts RMS) for 50 mW	$V_{g1}(rms)$	0.41	0.42
Input Swing (volts RMS) for 250 mW	$V_{g1}(rms)$	0.93	0.94
Self Bias Resistance (ohms)	R_k	180	

q For 5% Third Harmonic and Second Harmonic not exceeding 5%.

† For 7% Third Harmonic and Second Harmonic not exceeding 7%.

BULB Partly metallized

BASE A.O.7



Viewed from free end of pins.

CONNEXIONS

Pin 1	Metallizing	M
Pin 2	Heater	h
Pin 3	Anode	a
Pin 4	Grid 2	g_2
Pin 5	Grid 1	g_1
Pin 6	Omitted	
Pin 7	Heater	h
Pin 8	Cathode	k