

**MAZDA**

6.F.13

**HIGH SLOPE SCREENED R.F. PENTODE**

Indirectly heated - for parallel operation

RATING

Heater Voltage (volts)	$V_h$	6.3
Heater Current (amps)	$I_h$	0.35
Maximum Anode Voltage (volts)	$V_a$	250
Maximum Screen Voltage (volts)	$V_{g2}$	250
Mutual Conductance (mA/V)	$S_m$	\$ 9.0
Maximum Anode Dissipation (watts)	$P_a$	† 3.5
Maximum Screen Dissipation (watts)	$P_{g2}$	† 1.0
Maximum Potential Heater/Cathode (volts DC)	$V_{h-k(max)}$	150

\$ Taken at  $V_a = V_{g2} = 200v$ ;  $V_{g1} = -1.8v$ .

† With grid cathode resistance not exceeding 10,000 ohms.

INTER-ELECTRODE CAPACITANCES

		$q$	+	[
Anode/Earth ( $\mu\mu F$ )	$C_{out}$	4.4	5.9	-
Anode/Control Grid ( $\mu\mu F$ )	$C_{a,g}$	-	.007	.006
Control Grid/Earth ( $\mu\mu F$ )	$C_{in}$	9.5	11.0	-

$q$  Inter-Electrode capacitances with holder capacitance balanced out.

+

Total capacitances including Benjamin BSA moulded holder measured at 1 Mc/s.

[ Total capacitances including Benjamin BSA moulded holder measured at 1 Mc/s but with extra perpendicular shield.

DIMENSIONS

Maximum Overall Length (mm)	67
Maximum Diameter (mm)	22
Maximum Seated Height (mm)	54
Radius over Location Key (mm)	12.25

MOUNTING POSITION - Unrestricted.

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### TYPICAL OPERATION

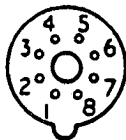
Anode Voltage (volts)	$V_a$	-	200	190	208
Screen Voltage (volts)	$V_{g2}$	220 †	200	190	208
Grid Bias Voltage (volts -ve)	$V_{g1}$	1.45	1.8	1.55	1.9
Anode Current (mA)	$I_a$	17.0 †	10.0	10.3	10.15
Screen Current (mA)	$I_{g2}$	4.5 †	2.60	2.7	2.65
Mutual Conductance (mA/V)	$E_m$		9.0	9.25	8.95
Input Capacity Working ( $\mu\text{F}$ )	$C_{in(w)}$	*	12.6	12.75	12.6
Change in input capacity produced by biasing valve to 1 $\mu\text{A/V}$ ( $\mu\text{F}$ )	$\Delta C_{in(w)}$	-	2.75	2.9	2.7
Self Bias Resistance (ohms)	$R_{k,E}$	68	-	120	150
Input Loss at 45 Mc/s (ohms)	$r_{g1,k(w)}$	-	4800	4500	4900
Equivalent grid noise resistance (ohms)	$r_{eq}$		780	750	790

† Maximum permissible rating D.C. connected as Video Output Valve.

\* Inter-Electrode capacitance with holder capacitance balanced out.

BULB Clear

BASE B8A



Viewed from free end of pins.

### CONNEXIONS

Pin 1	Heater	h
Pin 2	Anode	a
Pin 3	Internal Screen	s
Pin 4	Suppressor Grid	g3
Pin 5	Screen Grid	g2
Pin 6	Control Grid	g1
Pin 7	Cathode	k
Pin 8	Heater	h

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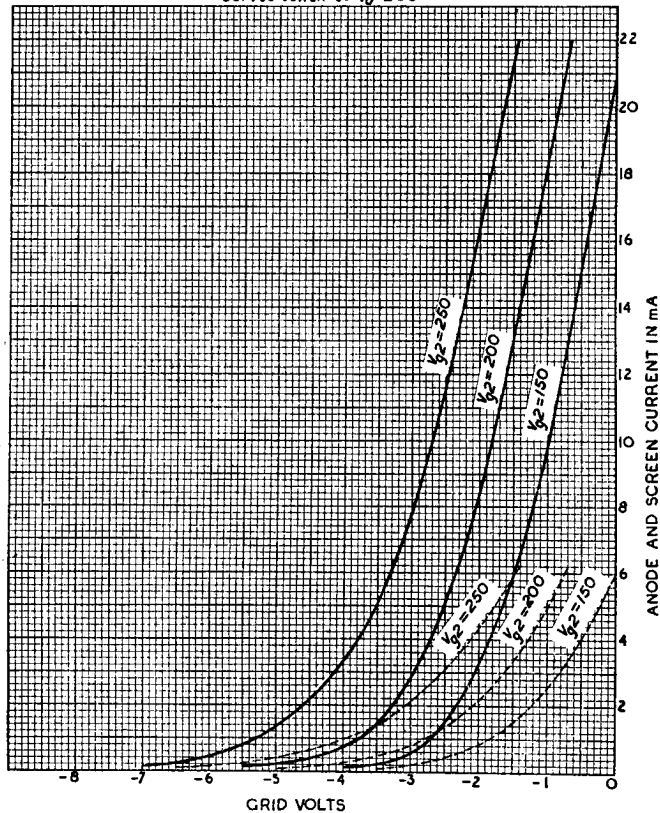
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**AVERAGE CHARACTERISTIC CURVES**

*Curves taken at  $V_g = 250$*



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