

MAZDA

6.F.15

VARIABLE MU R. F. PENTODE
Indirectly heated - for parallel operation

RATING

Heater Voltage (volts)	V_h	6.3
Heater Current (amps)	I_h	0.2
Maximum Anode Voltage (volts)	$V_a(\max)$	250
Maximum Screen Voltage (volts)	$V_{g2}(\max)$	250
Maximum Cathode Current (mA)	$I_k(\text{av})\max$	10
Mutual Conductance (mA/V)	g_m	[2.3
Anode Impedance (megohm)	r_a	[1.7
Inner μ	$\mu_{g1, g2}$	16.5
Maximum Potential Heater/Cathode (volts D.C.)	$V_{h, k}(\max)$	150

| Taken at $V_a = 250v$; $V_{g2} = 100v$; $V_{g1} = -2.5v$.

INTER-ELECTRODE CAPACITANCES

	C	μ
Anode/Earth ($\mu\mu F$)	C_{out}	6.8
Anode/Grid ($\mu\mu F$)	$C_{a, g1}$.0034
Grid/Earth ($\mu\mu F$)	C_{in}	5.1
		6.6

¶ Inter-electrode capacitances with holder capacitance balanced out.

|| Including a Benjamin BSA holder at a frequency of 1 Mc/s with vertical screen fitted to holder between pins 3-4 and 7-8.

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

DIMENSIONS

Maximum Overall Length (mm)	67
Maximum Diameter (mm)	22
Maximum Seated Height (mm)	54
Radius Over Location Key (mm)	12.25
Approximate Nett Weight (ozs)	$\frac{1}{4}$
Approximate Packed Weight (ozs)	1

MOUNTING POSITION Unrestricted.

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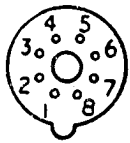
TYPICAL OPERATION

Anode Voltage (volts)	V _a	250	250
Screen Voltage (volts)	V _{g2}	100	250
Grid Bias Voltage (volts-ve)	V _{g1}	2.5	
Anode Current (mA)	I _a	7.0	
Screen Current (mA)	I _{g2}	2.0	
Mutual Conductance (mA/V)	g _m	2.3	
Anode Impedance (megohms)	r _a	1.7	
Input Loss at 45 Mc/s (ohms)	r _{g1,k(w)}	24,000	
Input Capacitance Working (Hot) (μF)	C _{in(w)}	* 6.1	
Change in input capacitance produced by biasing valve to cut-off (μF)	Δ C _{in(w)}	0.9	
Bias to give mutual conductance of 100 μA/V.	V _{g1}		27
Bias to give mutual conductance of 23 μA/V.	V _{g1}	13.3	34
Equivalent grid noise resistance (ohms)	r _{eq}	6,000	

* 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 Shield	s
Pin 4	Suppressor Grid	g3
Pin 5	Screen Grid	g2
Pin 6	Control Grid	g1
Pin 7	Cathode	k
Pin 8	Heater	h

NOTE

In use pins 3 and 4 should be joined and earthed.

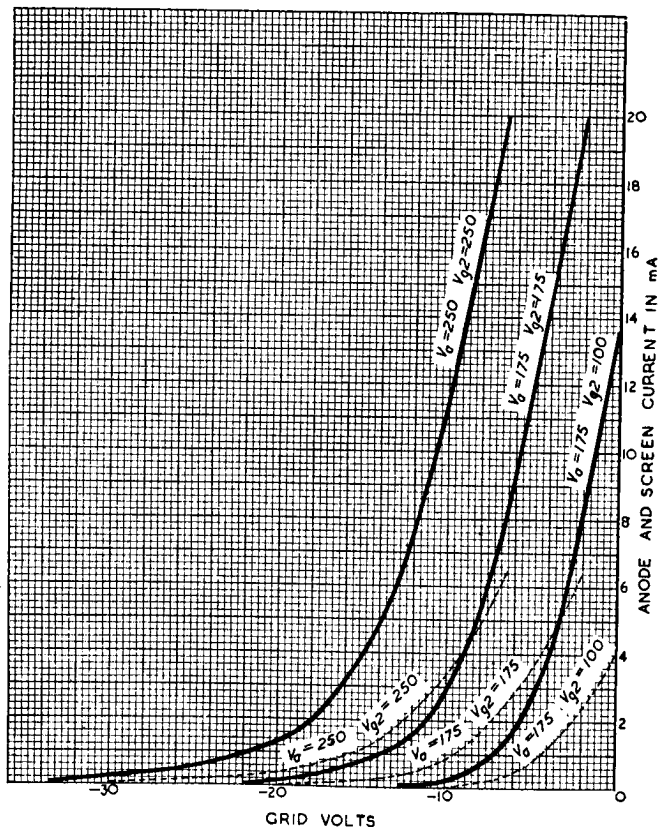
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TENTATIVE CHARACTERISTIC CURVES



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