

EDISWAN

MAZDA

6F23

HIGH SLOPE SCREENED H.F. PENTODE TENTATIVE

6F23

GENERAL

The 6F23 is intended for use as a straight television pentode and is suitable for AC or AC/DC operation.

RATING

Heater Voltage (volts)	V_h	6.3
Heater Current (amps)	I_h	0.3
Maximum Anode Voltage (volts)	$V_a(\max)$	250
Maximum Screen Voltage (volts)	$V_{g2}(\max)$	250
Maximum Anode Dissipation (watts)	$P_a(\max)$	3§
Maximum Screen Dissipation (watts)	$P_{g2}(\max)$	1§
Maximum Heater to Cathode Voltage (volts) (r.m.s.)	$V_{h-k}(\max)$	200†
Maximum Resistance Control Grid to Cathode ($k\Omega$)	$R_{g-k}(\max)$	600‡
Mutual Conductance (mA/V)	g_m	9.2*
Inner Amplification Factor	μ_{g1-g2}	64*

* At $V_a = V_{g2} = 170$ volts; $I_a = 10$ mA.

§ With a grid-cathode resistance not exceeding 10,000 ohms.

† From Cathode to higher potential heater pin.

‡ With maximum anode dissipation 2 watts, maximum screen dissipation 0.5 watts and assuming a common anode and screen decoupling resistance of not less than 2,200 ohms $\pm 10\%$.

INTER-ELECTRODE CAPACITANCES (pF)

		†	§	**
Grid/Earth	c_{in}	9.0	10.0	9.0
Anode/Earth	c_{out}	4.0	5.0	3.7
Anode/Grid	c_{g1-a}	0.008	0.009	0.007

Inter-electrode Capacitances (continued overleaf)

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

‡ Inter-electrode capacitances with holder capacitance balanced out.

§ Total inter-electrode capacity including B9A ceramic holder without skirt or radial shield (Plessey holder type CP180014/1).

** Capacity in fully shielded jig, without can.

DIMENSIONS

Maximum Overall Length	(mm)	67.5
Maximum Diameter	(mm)	22.2
Maximum Seated Height	(mm)	60.5
Approximate Nett Weight	(ozs)	$\frac{1}{2}$
Approximate Packed Weight	(ozs)	$\frac{3}{4}$

MOUNTING POSITION—Unrestricted.

TYPICAL OPERATION

Anode Voltage (volts)	V_a	170
Screen Voltage (volts)	V_{g2}	170
Grid Bias Voltage (volts)	V_{g1}	-1.9
Cathode Bias Resistance (ohms)	R_k	150
Anode Current (mA)	I_a	10
Screen Current (mA)	I_{g2}	2.6
Mutual Conductance (mA/V)	g_m	9.2
Input Loss at 38 Mc/s (ohms)	$r_{g1-k(w)}$	8,500*
Equivalent grid noise resistance (ohms)	R_{eq}	670
Input Capacity Working (pF)	$C_{in(w)}$	12.1‡
Change in Input Capacity produced by biasing valve to cut off (pF)	$\Delta C_{in(w)}$	2.45‡

* With the two cathodes strapped and returned directly to earth.

‡ Hot Capacity at 38 Mc/s.

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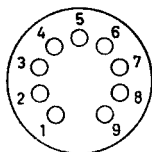
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BASE—Noval (B9A)



Viewed from Free End of Pins

CONNECTIONS

Pin 1	Cathode	k
Pin 2	Control Grid	g1
Pin 3	Cathode	k
Pin 4	Heater	h
Pin 5	Heater	h
Pin 6	Shield	s
Pin 7	Anode	a
Pin 8	Screen Grid	g2
Pin 9	Suppressor Grid	g3