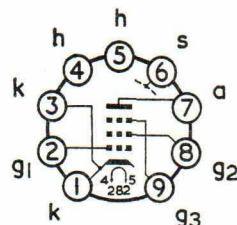


HIGH SLOPE R.F. PENTODE



B9A Base

GENERAL

This valve is a sharp cut-off frame grid R.F. Pentode for use as an I.F. amplifier in A.C. or A.C./D.C. television receivers.

Heater Voltage	V_h	6.3	V
Heater Current	I_h	0.3	A

RATINGS

Maximum Anode Dissipation	$P_a(\text{max})$	2.5	W
Maximum Screen Grid Dissipation	$P_{g2}(\text{max})$	0.9	W
Maximum Anode Supply Voltage	$V_a(\text{b})\text{max}$	550	V
Maximum Anode Voltage	$V_a(\text{max})$	250	V
Maximum Screen Grid Supply Voltage	$V_{g2}(\text{b})\text{max}$	550	V
Maximum Screen Grid Voltage	$V_{g2}(\text{max})$	250	V
Maximum Peak Negative Grid Voltage	$-V_{g1}(\text{pk})\text{max}$	50	V
Maximum Heater to Cathode Voltage (R.M.S.)	$V_{h-k}(\text{max})\text{r.m.s.}$	150	V
Maximum Cathode Current	$I_k(\text{max})$	25	mA
Maximum Control Grid to Cathode Resistance	$R_{g-k}(\text{max})$	1.0	M Ω
Maximum Heater to Cathode Resistance	$R_{h-k}(\text{max})$	20	k Ω
Maximum Bulb Temperature	$T_{\text{bulb}}(\text{max})$	180	$^{\circ}\text{C}$

INTER-ELECTRODE CAPACITANCES

	C_{in}	C_{out}	C_{a-g1}	C_{g1-g2}
Input	10	3.0	<0.0055	2.8
Output		3.4	<0.0065	2.8
Anode to Grid 1			<0.0075	2.8
Grid 1 to Grid 2				

* In fully shielded socket without can (I.E.C. Publication 100).

† With holder capacitance balanced out (Holder as below).

‡ Total capacitance including B9A ceramic holder without skirt or radial shield (Plessey holder type CP180900/1).

TYPICAL OPERATION

Anode Supply Voltage	$V_a(\text{b})$	170	200	230	200	V
Screen Grid Supply Voltage	$V_{g2}(\text{b})$	170	200	230	200	V
Suppressor Grid Supply Voltage	$V_{g3}(\text{b})$	0	0	0	0	V
Control Grid Voltage	V_{g1}	—	—	—	-2.5	V
Anode Current	I_a	10	10	10	10	mA
Screen Grid Current	I_{g2}	4.1	4.1	4.1	4.1	mA
Screen Grid Resistance	R_{g2}	0	7.5	15	—	k Ω
Cathode Bias Resistance	R_k	140	140	140	—	Ω
Mutual Conductance	g_m	15.6	15.6	15.6	15	mA/V
Inner Amplification Factor	μ_{g1-g2}	—	—	—	60	
Valve Anode Resistance ($\delta V_a/\delta I_a$)	r_a	330	510	680	380	k Ω
Valve Input Resistance at 38 Mc/s	r_{g1}	11	11	11	12	k Ω
Equivalent Grid Noise Resistance at 38 Mc/s	R_{eq}	300	300	300	330	Ω
Working Input Capacitance	$C_{in(w)}$	—	—	—	15*	pF

6F30
EF184

VALVES

MAZDA

