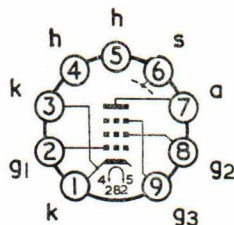


VARIABLE-MU R.F. PENTODE



B9A Base

GENERAL

This valve is a variable-mu frame grid R.F. pentode for use as an A.G.C. controlled, high gain 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	$P_{g2}(\text{max})$	0.65	W
Maximum Anode Voltage	$V_a(\text{max})$	250	V
Maximum Screen Grid Voltage	$V_{g2}(\text{max})$	250	V
Maximum Heater to Cathode Voltage (R.M.S.)	$V_{h-k}(\text{r.m.s.})_{\text{max}}$	150	V
Maximum Control Grid to Cathode Resistance	$R_{g1-k}(\text{max})$	1	MΩ

INTER-ELECTRODE CAPACITANCES

	C_{in}	C_{out}	C_{g1-a}	C_{g1-g2}
Input	9.5	9.9	11.0	pF
Output	3.0	3.4	3.5	pF
Grid 1 to Anode	<0.0055	<0.0065	<0.0075	pF
Grid 1 to Grid 2	2.8	2.8	2.8	pF

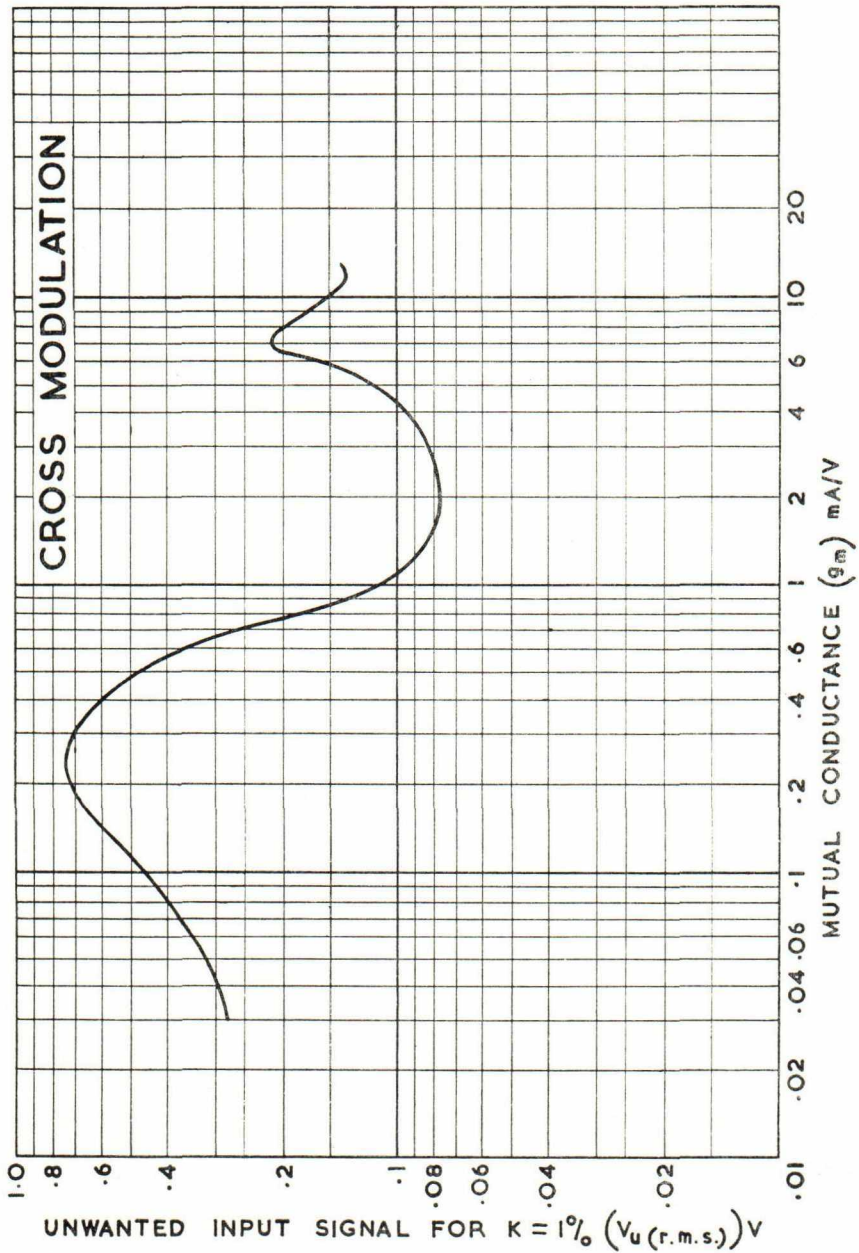
* In fully shielded socket without can.

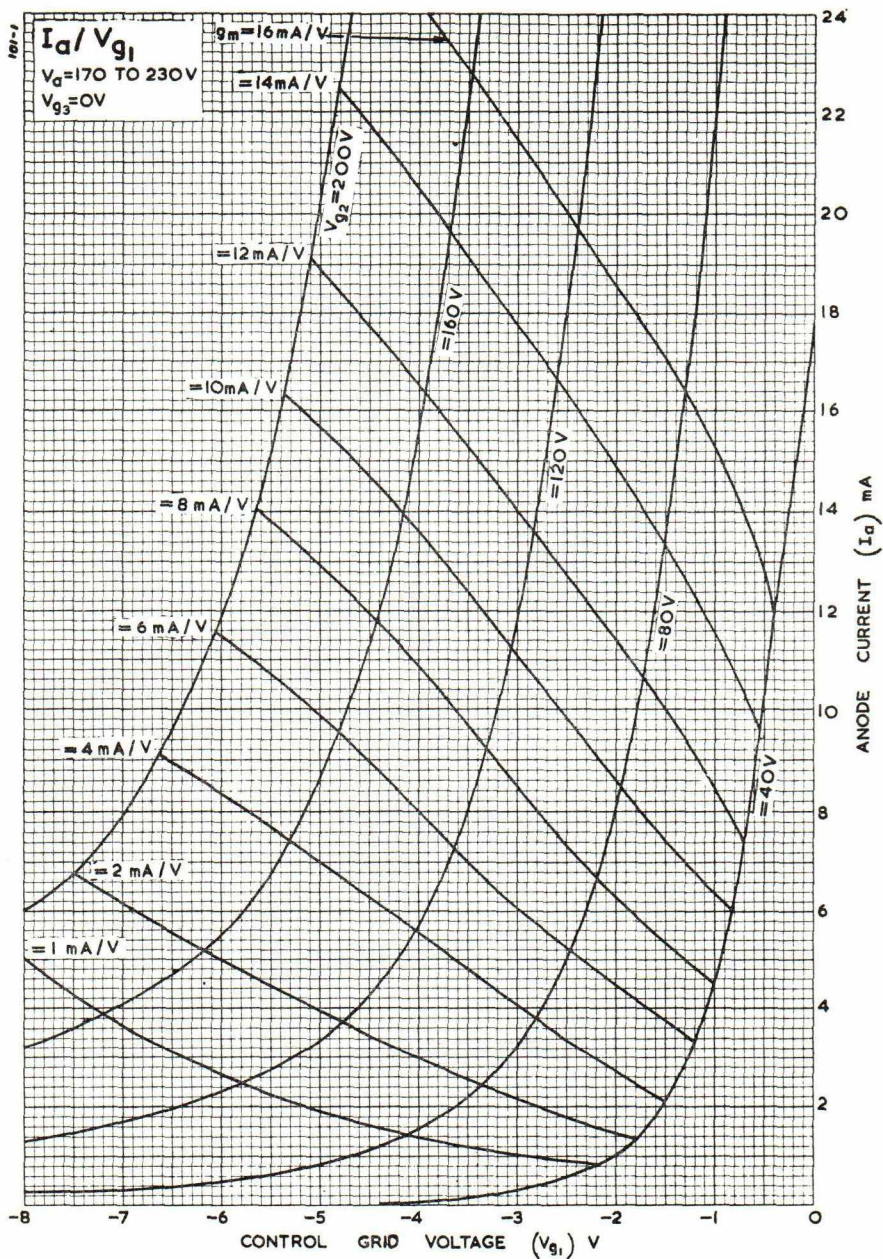
† With holder capacitance balanced out. (Holder as below.)

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

CHARACTERISTICS AND TYPICAL OPERATION

Supply Voltage	V_b	—	—	—	200	V
Anode Voltage	V_a	170	200	230	188	V
Screen Grid Voltage	V_{g2}	90	90	90	92	V
Screen Grid Resistance	R_{g2}	—	—	—	24	kΩ
Self Bias Resistance	R_k	—	—	—	120	Ω
Grid Bias Voltage	V_{g1}	-1.8	-2.0	-2.1	—	V
Anode Current	I_a	14	12	10.5	12	mA
Screen Grid Current	I_{g2}	5.3	4.5	3.6	4.5	mA
Mutual Conductance	g_m	14	12.5	10.6	12.5	mA/V
Valve Anode Resistance ($\delta v_a/\delta i_a$)	r_a	350	500	650	—	kΩ
Valve Input Resistance at 40 Mc/s	r_{g1}	11.6	13	15.3	—	kΩ
Equivalent Grid Noise Resistance at 40 Mc/s	R_{eq}	—	490	—	—	Ω
Grid Voltage for $g_m/10$	$V_{g1}(g_m/10)$	—	—	—	-5.5	V
Grid Voltage for $g_m/100$	$V_{g1}(g_m/100)$	—	—	—	-19	V





6F29
EF183

VALVES

MAZDA

