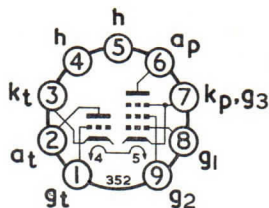


TRIODE PENTODE



B9A Base

GENERAL

This triode pentode valve with separate cathodes is primarily intended for use in the video output stage of television receivers. The triode may be used in a variety of ways such as sync. separator, A.G.C. and noise suppression circuits.

Heater Current	I_h	0.3	A
Heater Voltage	V_h	15	V

RATINGS

		Triode	Pentode	
Maximum Anode Dissipation	$P_a(\max)$	1	4	W
Maximum Screen Grid Dissipation	$P_{g2}(\max)$	—	1.7	W
Maximum Anode Supply Voltage	$V_{a(b)\max}$	550	550	V
Maximum Anode Voltage	$V_{a(\max)}$	250*	250	V
Maximum Screen Grid Supply Voltage	$V_{g2(b)\max}$	—	550	V
Maximum Screen Grid Voltage	$V_{g2(\max)}$	—	250	V
Maximum Heater to Cathode Voltage (Heater Positive)	$V_{h-k(\max)}$	150	200	V
Maximum Heater to Cathode Voltage (Heater Negative)	$V_{h-k(\max)}$	350†	200	V
Maximum Cathode Current	$I_{k(\max)}$	12‡	40	mA
Maximum Grid 1 to Cathode Resistance Self Bias	$R_{g-k(\max)}$	3	2	MΩ
Fixed Bias		1	1	MΩ

* Maximum peak anode voltage ($I_a < 0.1 \text{ mA}$) = 600V

† Maximum D.C. component = 200V

‡ Maximum peak cathode current = 160mA for maximum pulse duration = 800μs.

INTER-ELECTRODE CAPACITANCES

		§	
Pentode Input	$C_{in(p)}$	8.7	pF
Pentode Output	$C_{out(p)}$	4.2	pF
Grid 1 to Anode Pentode	C_{g1-ap}	<0.1	pF
Triode Input	$C_{in(t)}$	3.8	pF
Triode Output	$C_{out(t)}$	2.3	pF
Anode Triode to Grid Triode	C_{at-gt}	2.7	pF
Grid Triode to Grid 1	C_{gt-g1}	<0.01	pF
Anode Triode to Grid 1	C_{at-g1}	<0.01	pF
Grid Triode to Heater	C_{gt-h}	<0.1	pF

§ Inter-electrode capacitances in fully shielded socket without can.

CHARACTERISTICS

		Triode		Pentode		
Anode Voltage	V_a	200	170	200	220	V
Screen Grid Voltage	V_{g2}	—	170	200	220	V
Control Grid Voltage	V_{g1}	-1.7	-2.1	-2.9	-3.4	V
Anode Current	I_a	3	18	18	18	mA
Screen Grid Current	I_{g2}	—	3	3	3	mA
Mutual Conductance	g_m	4	11	10.4	10	mA/V
Amplification Factor	μ	65	—	—	—	
Inner Amplification Factor	μ_{g1-g2}	—	36	36	36	
Valve Anode Resistance ($\delta V_a / \delta I_a$)	r_a	16.2	100	130	150	kΩ

