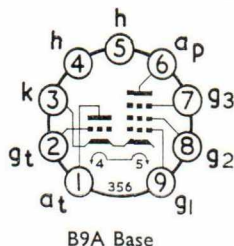


A.F. TRIODE PENTODE



B9A Base

GENERAL

This triode pentode is for use in the field time base and audio circuits of television receivers.

Heater Voltage	V_h	6.3	V
Heater Current	I_h	0.3	A

RATINGS

	Triode	Pentode	
Maximum Anode Dissipation	$P_a(\max)$	1.0	3.5 W
Maximum Screen Grid Dissipation	$P_{g2}(\max)$	—	1.2 W
Maximum Anode Supply Voltage	$V_{a(b)\max}$	550	550 V
Maximum Peak Anode Voltage	$V_{a(pk)\max}$	—	1.2* kV
Maximum Anode Voltage	$V_a(\max)$	200	400 V
Maximum Screen Grid Supply Voltage	$V_{g2(b)\max}$	—	550 V
Maximum Screen Grid Voltage	$V_{g2}(\max)$	—	250 V
Maximum Cathode Current	$I_k(\max)$	8.0	25 mA
Maximum Peak Cathode Current	$I_k(pk)\max$	200*	350* mA
Maximum Grid Resistance	$R_g(\max)$	—	—
$I_{kp} = 12$ mA, Field Output Stage	3.0	2.2	MΩ
$I_{kp} = 20$ mA, Audio Output Stage	—	1.0	MΩ
Maximum Heater to Cathode Voltage	$V_{h-k}(\max)$	150	V
Maximum Heater to Cathode Resistance	$R_{h-k}(\max)$	20	kΩ

* Maximum pulse duration 10 per cent of one cycle, with a maximum of 2 ms.

INTER-ELECTRODE CAPACITANCES

	Triode	Pentode	
Anode to Grid	C_{a-g}	0.9	pF
Control Grid to Heater	C_{g1-h}	<0.05	pF
Triode Grid to Pentode Anode	C_{gt-ap}	<0.12	pF
Triode Anode to Pentode Anode	C_{at-ap}	<1.2	pF
Triode Grid to Pentode Grid 1	C_{gt-g1}	<0.2	pF
Triode Anode to Pentode Grid 1	C_{at-g1}	<0.2	pF
Heater to Cathode	C_{h-k}	3.7	pF
Pentode Input	$C_{in(p)}$	4.5	pF
Pentode Output	$C_{out(p)}$	5.0	pF
Triode Grid to Cathode	C_{gt-k}	2.0	pF
Triode Anode to Cathode	C_{at-k}	0.3	pF

CHARACTERISTICS

	Triode	Pentode	
Anode Voltage	V_a	100	170 200 V
Screen Grid Voltage	V_{g2}	—	170 200 V
Control Grid Voltage	V_{g1}	—2.3	—6.7 —8.0 V
Anode Current	I_a	4.0	15 17.5 mA
Screen Grid Current	I_{g2}	—	2.8 3.3 mA
Mutual Conductance	g_m	1.4	3.2 3.3 mA/V
Valve Anode Resistance ($\partial V_a / \partial I_a$)	r_a	12.5	150 150 kΩ
Amplification Factor	μ	17.5	— —
Inner Amplification Factor	μ_{g1-g2}	—	14 14