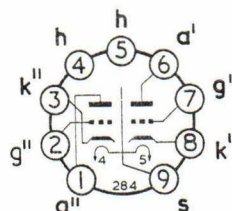


HIGH SLOPE DOUBLE TRIODE



B9A Base

GENERAL

This high slope, low noise double triode is intended for use as a cascode R.F. amplifier in V.H.F. television tuners.

Heater Current	I_h	0.3	A
Heater Voltage	V_h	7.6	V

RATINGS—Each Section

Maximum Anode Dissipation	$P_a(\text{max})$	1.8	W
Maximum Anode Supply Voltage	$V_{a(b)\text{max}}$	550	V
Maximum Anode Voltage	$V_a(\text{max})$	130	V
Maximum Negative Grid Voltage	$-V_g(\text{max})$	50	V
Maximum Heater to Cathode Voltage (R.M.S.)	$V_{h-k'}(\text{r.m.s.})_{\text{max}}$	80	V
Maximum Heater to Cathode Voltage, Heater Negative	$V_{h-k''}(\text{max})$	180*	V
Maximum Cathode Current	$I_k(\text{max})$	25	mA
Maximum Grid to Cathode Resistance	$R_{g-k}(\text{max})$	1.0	MΩ
Maximum Heater to Cathode Resistance	$R_{h-k}(\text{max})$	20	kΩ

In order not to exceed the maximum permissible anode voltage when the cascode amplifier is controlled, it is necessary to use a voltage divider for the grid of the grounded grid output section (a'', g'', k''). With grid current biasing for the grounded cathode input section (a', g', k'), the anode voltage across this section should not be more than 75V in the non-controlled condition.

*Maximum D.C. component 130V.

INTER-ELECTRODE CAPACITANCES

	†	‡	
Grid' to Cathode', Heater and Shield	$C_{g'-k',h,s}$	3.3	pF
Anode' to Cathode', Heater and Shield	$C_{a'-k',h,s}$	1.8	pF
Anode' to Grid'	$C_{a'-g'}$	1.4	pF
Grid' to Heater	$C_{g'-h}$	0.13	pF
Cathode' to Grid'', Heater and Shield	$C_{k''-g'',h,s}$	6.0	pF
Anode'' to Grid'', Heater and Shield	$C_{a''-g'',h,s}$	2.8	pF
Anode'' to Cathode''	$C_{a''-k''}$	0.18	pF
Anode'' to Grid''	$C_{a''-g''}$	1.4	pF
Cathode'' to Heater	$C_{k''-h}$	2.7	pF
Anode' to Anode''	$C_{a'-a''}$	<0.045	pF
Grid' to Anode''	$C_{g'-a''}$	<0.005	pF

† Measured without an external shield.

‡ Measured with an external shield.

CHARACTERISTICS—Each Section

Anode Voltage	V_a	90	V
Grid Voltage	V_g	-1.3	V
Anode Current	I_a	15	mA
Mutual Conductance	g_m	12.5	mA/V
Amplification Factor	μ	33	
Equivalent Noise Resistance	R_{eq}	300	Ω

MOUNTING POSITION—Unrestricted

