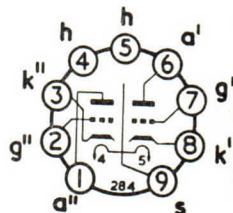


V.H.F. HIGH SLOPE DOUBLE TRIODE



B9A Base

GENERAL

This variable- μ , low noise, high slope frame grid double triode is intended for use as a V.H.F. cascode amplifier.

| | | |
|----------------|-----------|---|
| Heater Current | I_h 0.3 | A |
| Heater Voltage | V_h 7.6 | V |

RATINGS—Each Section

| | | | |
|--|--------------------|-----|------------|
| Maximum Anode Dissipation | $P_{a(max)}$ | 1.8 | W |
| Maximum Anode Supply Voltage | $V_{a(b)(max)}$ | 550 | V |
| Maximum Anode Voltage | $V_a(max)$ | 130 | V |
| Maximum Negative Grid Voltage | $-V_g(max)$ | 50 | V |
| Maximum Heater to Cathode' Voltage | $V_{h-k'}(max)$ | 80 | V |
| Maximum Heater to Cathode'' Voltage | $V_{h-k''}(max)$ | | |
| Heater Negative | | 180 | V |
| Maximum Cathode Current | $I_{k(max)}$ | 22 | mA |
| Maximum Grid' to Cathode' Resistance | $R_{g'-k'}(max)$ | 1.0 | M Ω |
| Maximum Grid'' to Cathode'' Resistance | $R_{g''-k''}(max)$ | 500 | k Ω |
| Maximum Heater to Cathode Resistance | $R_{h-k}(max)$ | 20 | k Ω |

INTER-ELECTRODE CAPACITANCES

| | Shielded | Unshielded |
|--|-----------------------|------------|
| Anode' to Anode'' | $C_{a'-a''}$ <0.015 | <0.045 pF |
| Grid' to Anode'' | $C_{g'-a''}$ <0.004 | <0.004 pF |
| Anode' to Grid' | $C_{a'-g'}$ 1.9 | 1.9 pF |
| Grid' to Cathode', Heater and Shield | $C_{g'-k',h,s}$ 3.5 | 3.5 pF |
| Anode' to Cathode', Heater and Shield | $C_{a'-k',h,s}$ 2.3 | 1.7 pF |
| Grid' to Heater | $C_{g'-h}$ <0.28 | <0.28 pF |
| Anode'' to Grid'' | $C_{a''-g''}$ 1.9 | 1.9 pF |
| Cathode'' to Grid'', Heater and Shield | $C_{k''-g'',h,s}$ 6.0 | 6.0 pF |
| Anode'' to Grid'', Heater and Shield | $C_{a''-g'',h,s}$ 4.0 | 3.4 pF |
| Cathode'' to Heater | $C_{k''-h}$ 3.0 | 3.0 pF |
| Anode'' to Cathode'' | $C_{a''-k''}$ 0.17 | 0.18 pF |

CHARACTERISTICS—Each Section

| | | | |
|--|-----------------|------|------------|
| Anode Voltage | V_a | 90 | V |
| Grid Voltage | V_g | -1.4 | V |
| Anode Current | I_a | 15 | mA |
| Mutual Conductance | g_m | 12.5 | mA/V |
| Valve Anode Resistance ($\delta v_a/\delta i_a$) | r_a | 2.5 | k Ω |
| Amplification Factor | μ | 34 | |
| Grid Voltage for $g_m/20$ | $V_{g(gm/20)}$ | -5.0 | V |
| Grid Voltage for $g_m/100$ | $V_{g(gm/100)}$ | -9.0 | V |

NOTE.—The triode on pins 6, 7 and 8 should have the grounded cathode connection and that on pins 1, 2 and 3 should have the grounded grid connection.

