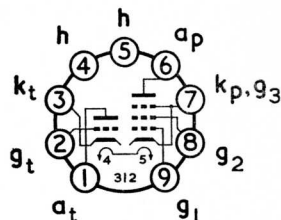


TIME BASE TRIODE PENTODE



B9A Base

GENERAL

This triode pentode is for use in television receivers with the triode as a frame blocking oscillator and the pentode as a frame output valve.

| | | | |
|----------------|-------|------|---|
| Heater Current | I_h | 0.3 | A |
| Heater Voltage | V_h | 12.6 | V |

RATINGS

| | | Triode | Pentode | |
|--|------------------|--------|---------|------------|
| Maximum Anode Dissipation | $P_{a(max)}$ | 3.5 | 5.4 | W |
| Maximum Screen Grid Dissipation | $P_{g_2(max)}$ | — | 1.2 | W |
| Speech and Music | | — | 2.4 | W |
| Maximum Anode Supply Voltage | $V_{a(b)max}$ | 550 | 550 | V |
| Maximum Anode Voltage | $V_{a(max)}$ | 250 | 250 | V |
| Maximum Peak Positive Anode Voltage | $V_{a(pk)max}$ | — | 2.0 | kV |
| Maximum Screen Grid Supply Voltage | $V_{g_2(b)max}$ | — | 550 | V |
| Maximum Screen Grid Voltage | $V_{g_2(max)}$ | — | 250 | V |
| Maximum Heater to Cathode Voltage | $V_{h-k(max)}$ | | | |
| Heater Positive | | 100 | 100 | V |
| Maximum Cathode Current | $I_{k(max)}$ | 15 | 45 | mA |
| Maximum Control Grid to Cathode Resistance | $R_{g_1-k(max)}$ | | | |
| Self Bias | | — | 500 | k Ω |
| Fixed Bias | | 1.0 | 0.25 | M Ω |
| Grid Current Bias | | 22 | — | M Ω |

INTER-ELECTRODE CAPACITANCES

| | | Triode | Pentode | |
|------------------------|-------------|--------|---------|----|
| Input | C_{in} | 2.3 | 5.7 | pF |
| Output | C_{out} | 0.32 | 4.7 | pF |
| Anode to Control Grid | C_{a-g_1} | 1.6 | <0.2 | pF |
| Control Grid to Heater | C_{g_1-h} | — | 0.4 | pF |

OPERATING CHARACTERISTICS

| | | Triode | Pentode | |
|--|-----------------|--------|---------|------------|
| Anode Voltage | V_a | 250 | 170 | V |
| Screen Grid Voltage | V_{g_2} | — | 170 | V |
| Control Grid Voltage | V_{g_1} | —8.5 | —9.5 | V |
| Anode Current | I_a | 10.5 | 30 | mA |
| Screen Grid Current | I_{g_2} | — | 5.0 | mA |
| Mutual Conductance | g_m | 2.2 | 5.5 | mA/V |
| Valve Anode Resistance ($\delta v_a / \delta i_a$) | r_a | 7.7 | 53 | k Ω |
| Amplification Factor | μ | 17 | — | |
| Inner Amplification Factor | $\mu_{g_1-g_2}$ | — | 10 | |