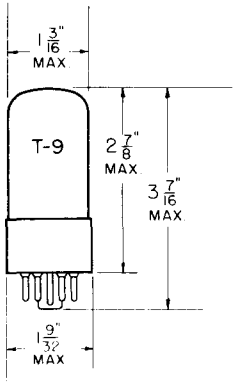
# TUNG-SOL

## TRIODE

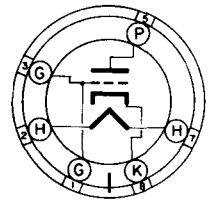



**GLASS BULB**

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 1.25 AMP.
AC OR DC

ANY MOUNTING POSITION




**BOTTOM VIEW**
SHORT INTERMEDIATE SHELL 6 PIN OCTAL
8J8

THE 6CK4 IS A LOW MU TRIODE INTENDED FOR USE PRIMARILY AS A VERTICAL DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS. CONTAINED IN A T-9 ENVELOPE, THE TUBE HAS A HIGH ZERO-BIAS PLATE CURRENT.

### DIRECT INTERELECTRODE CAPACITANCES

| | | |
|---|---|---|
| GRID TO PLATE (G TO P) | 6.5 | μμf |
| INPUT: G TO (H+K) | 8.0 | μμf |
| OUTPUT: P TO (H+K) | 1.8 | μμf |

### RATINGS[A]

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

VERTICAL DEFLECTION AMPLIFIER[B]

| | | |
|---|---|---|
| HEATER VOLTAGE | 6.3 | VOLTS |
| MAXIMUM DC PLATE VOLTAGE | 550 | VOLTS |
| MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABS. MAX.) | 2 000 | VOLTS |
| MAXIMUM PEAK NEGATIVE PULSE GRID VOLTAGE | 250 | VOLTS |
| MAXIMUM PLATE DISSIPATION[C] | 12.0 | WATTS |
| MAXIMUM AVERAGE CATHODE CURRENT | 100 | MA. |
| MAXIMUM PEAK CATHODE CURRENT | 350 | MA. |
| MAXIMUM GRID CIRCUIT RESISTANCE | | |
| SELF BIAS | 2.2 | MEGOHMS |
| MAXIMUM HEATER-CATHODE VOLTAGE | | |
| HEATER NEGATIVE WITH RESPECT TO CATHODE | | |
| TOTAL DC AND PEAK | 200 | VOLTS |
| HEATER POSITIVE WITH RESPECT TO CATHODE | | |
| DC | 100 | VOLTS |
| TOTAL DC AND PEAK | 200 | VOLTS |

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## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

| | | |
|---|---|---|
| HEATER VOLTAGE | 6.3 | VOLTS |
| HEATER CURRENT | 1.25 | AMP. |
| PLATE VOLTAGE | 250 | VOLTS |
| GRID #1 VOLTAGE | -28 ← | VOLTS |
| PLATE CURRENT | 40 ← | MA. |
| TRANSCONDUCTANCE | 5 500 ← | μMHOS |
| AMPLIFICATION FACTOR | 6.6 ← | |
| PLATE RESISTANCE (APPROX.) | 1 200 ← | OHMS |
| GRID VOLTAGE FOR $I_b$ = 0.5 MA. | -50 | VOLTS |
| PLATE CURRENT AT $E_c$ =-38 Vdc. | 10 | MA. |
| ZERO BIAS PLATE CURRENT: $E_b$ =100 V; $E_c$ =0 (INSTANTANEOUS VALUES) | 125 | MA. |

[A] DESIGN-MAXIMUM RATINGS ARE THE LIMITING VALUES EXPRESSED WITH RESPECT TO BOGIE TUBES AT WHICH SATISFACTORY TUBE LIFE CAN BE EXPECTED TO OCCUR. TO OBTAIN SATISFACTORY CIRCUIT PERFORMANCE, THEREFORE, THE EQUIPMENT DESIGNER MUST ESTABLISH THE CIRCUIT DESIGN SO THAT NO DESIGN-MAXIMUM VALUE IS EXCEEDED WITH A BOGIE TUBE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, AND ENVIRONMENTAL CONDITIONS.

[B] FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS: FEDERAL COMMUNICATIONS COMMISSION", THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE SCANNING CYCLE.

[C] IN STAGES OPERATING WITH GRID LEAK BIAS, AN ADEQUATE CATHODE BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

→ INDICATES A CHANGE.