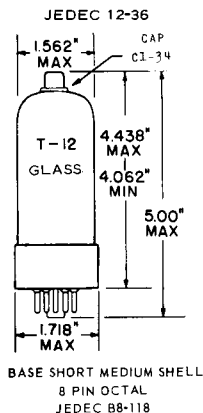


## TUNG-SOL

## TRIODE

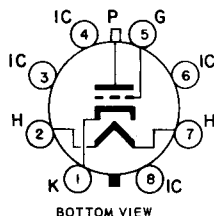
## OUTLINE DRAWING



FOR HIGH - VOLTAGE  
SHUNT REGULATOR SERVICE

COATED UNIPOTENTIAL CATHODE  
ANY MOUNTING POSITION

BASING DIAGRAM  
JEDEC 8GC



THE 6BK4A IS A SHARP CUT-OFF BEAM TRIODE FOR HIGH-VOLTAGE, LOW-CURRENT APPLICATION SHUNT REGULATION OF THE HIGH VOLTAGE, DC POWER SUPPLIED IN COLOR TELEVISION RECEIVERS. EXCEPT FOR ALLOWABLE PLATE DISSIPATION, THIS TYPE IS THE SAME AS THE 6BK4

## DIRECT INTERELECTRODE CAPACITANCES

|                                           |      |    |
|-------------------------------------------|------|----|
| GRID TO PLATE: G TO P                     | 0.03 | pf |
| GRID TO CATHODE AND HEATER: G TO (K + H)  | 2.6  | pf |
| PLATE TO CATHODE AND HEATER: P TO (K + H) | 1.0  | pf |

## HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM SYSTEM - SEE EIA STANDARD RS-239

|                                         |     |       |           |                 |
|-----------------------------------------|-----|-------|-----------|-----------------|
| AVERAGE CHARACTERISTICS                 | 6.3 | VOLTS | 200       | MA              |
| LIMITS OF APPLIED VOLTAGE - AC OR DC    |     |       | 6.3 ± 0.6 | VOLTS           |
| MAXIMUM HEATER - CATHODE VOLTAGE:       |     |       |           |                 |
| HEATER NEGATIVE WITH RESPECT TO CATHODE |     |       | 200       | VOLTS           |
| HEATER POSITIVE WITH RESPECT TO CATHODE |     |       |           | NOT RECOMMENDED |

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**MAXIMUM RATINGS**

DESIGN MAXIMUM SYSTEM - SEE EIA STANDARD RS-239

|                                                                       |        |         |
|-----------------------------------------------------------------------|--------|---------|
| MAXIMUM DC PLATE VOLTAGE                                              | 27,000 | VOLTS   |
| MAXIMUM UNREGULATED DC SUPPLY VOLTAGE                                 | 60,000 | VOLTS   |
| MAXIMUM NEGATIVE GRID VOLTAGE:                                        |        |         |
| DC VALUE                                                              | 135    | VOLTS   |
| PEAK VALUE (FOR DURATION OF 20 SEC. MAX.<br>DURING EQUIPMENT WARM-UP) | 440    | VOLTS   |
| MAXIMUM PLATE DISSIPATION                                             | 30     | WATTS   |
| MAXIMUM DC PLATE CURRENT                                              | 1.6    | MA      |
| MAXIMUM GRID CIRCUIT RESISTANCE                                       | 3      | MEGOHMS |
| FOR USE WITH "FLYBACK TRANSFORMER" HIGH VOLTAGE SUPPLY.               |        |         |

**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS**

SHUNT VOLTAGE - REGULATOR TUBE

IN ACCOMPANYING CIRCUIT

|                                       |         |         |
|---------------------------------------|---------|---------|
| UNREGULATED SUPPLY:                   |         |         |
| DC VOLTAGE                            | 36,000  | VOLTS   |
| EQUIVALENT RESISTANCE                 | 11      | MEGOHMS |
| VOLTAGE DIVIDER VALUES:               |         |         |
| R <sub>1</sub> (5 WATTS)              | 220     | MEGOHMS |
| R <sub>2</sub> (2 WATTS)              | 1       | MEGOHM  |
| R <sub>3</sub> (½ WATT)               | 820,000 | OHMS    |
| REFERENCE VOLTAGE:                    |         |         |
| DC VALUE                              | 200     | VOLTS   |
| EQUIVALENT RESISTANCE OF SUPPLY       | 1,000   | OHMS    |
| EFFECTIVE GRID-PLATE TRANSCONDUCTANCE | 200     | μMHOS   |
| DC PLATE CURRENT:                     |         |         |
| FOR LOAD CURRENT OF 0 MA.             | 1,000   | μAMP.   |
| FOR LOAD CURRENT OF 1 MA.             | 45      | μAMP.   |
| REGULATED DC OUTPUT VOLTAGE:          |         |         |
| FOR LOAD CURRENT OF 0 MA.             | 25,000  | VOLTS   |
| FOR LOAD CURRENT OF 1 MA.             | 24,500  | VOLTS   |

## TUNG-SOL

