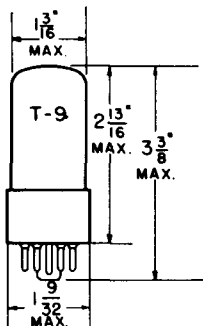


## TUNG-SOL

## BEAM PENTODE



GLASS BULB

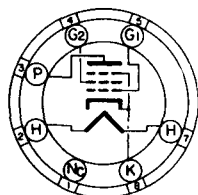
COATED UNIPOTENTIAL CATHODE

HEATER

9.4 VOLTS 0.6 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

INTERMEDIATE SHELL  
& PIN BASE

75

THE 9EF6 IS A BEAM POWER PENTODE DESIGNED FOR USE AS A VERTICAL DEFLECTION AMPLIFIER IN WIDE ANGLE TELEVISION RECEIVERS. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED.

## DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

|                                             |      |                  |
|---------------------------------------------|------|------------------|
| GRID #1 TO PLATE                            | 0.8  | $\mu\mu\text{f}$ |
| GRID #1 TO CATHODE GRID #3, GRID #2, HEATER | 11.5 | $\mu\mu\text{f}$ |
| PLATE TO CATHODE GRID #3, GRID #2, HEATER   | 9.0  | $\mu\mu\text{f}$ |

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

VERTICAL DEFLECTION AMPLIFIER - PENTODE CONNECTED

|                                                                                 |       |          |
|---------------------------------------------------------------------------------|-------|----------|
| HEATER VOLTAGE                                                                  | 9.4   | VOLTS    |
| MAXIMUM HEATER-CATHODE VOLTAGE:                                                 |       |          |
| HEATER POSITIVE WITH RESPECT TO CATHODE                                         |       |          |
| TOTAL DC AND PEAK                                                               | 200   | VOLTS    |
| DC                                                                              | 100   | VOLTS    |
| HEATER NEGATIVE WITH RESPECT TO CATHODE                                         |       |          |
| TOTAL DC AND PEAK                                                               | 200   | VOLTS    |
| MAXIMUM PLATE VOLTAGE                                                           | 250   | VOLTS    |
| MAXIMUM GRID #2 VOLTAGE                                                         | 250   | VOLTS    |
| MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABS. MAX.) <sup>A</sup>              | 2 000 | VOLTS    |
| MAXIMUM PLATE DISSIPATION                                                       | 10    | WATTS    |
| MAXIMUM PEAK NEGATIVE PULSE GRID #1 VOLTAGE                                     | 250   | VOLTS    |
| MAXIMUM GRID #2 DISSIPATION                                                     | 2.0   | WATTS    |
| MAXIMUM AVERAGE CATHODE CURRENT                                                 | 60    | MA.      |
| MAXIMUM PEAK CATHODE CURRENT                                                    | 180   | MA.      |
| MAXIMUM GRID #1 CIRCUIT RESISTANCE (R <sub>k</sub> =100 OHMS MIN.) <sup>B</sup> | 2.2   | MEG OHMS |
| HEATER WARM-UP TIME (APPROX.) <sup>*</sup>                                      | 11.0  | SECONDS  |

CONTINUED ON FOLLOWING PAGE

## TUNG-SOL

CONTINUED FROM PRECEDING PAGE

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

|                                                                       |       |            |
|-----------------------------------------------------------------------|-------|------------|
| HEATER VOLTAGE                                                        | 9.4   | VOLTS      |
| HEATER CURRENT                                                        | 0.6   | AMP.       |
| PLATE VOLTAGE                                                         | 250   | VOLTS      |
| GRID #2 VOLTAGE                                                       | 250   | VOLTS      |
| GRID #1 VOLTAGE                                                       | -18   | VOLTS      |
| PLATE CURRENT                                                         | 50    | MA.        |
| GRID #2 CURRENT                                                       | 2     | MA.        |
| TRANSCONDUCTANCE                                                      | 5 000 | $\mu$ MHOS |
| GRID #1 VOLTAGE (APPROX.) FOR $I_b=1$ MA.                             | -40   | VOLTS      |
| PLATE CURRENT FOR $E_b=75V$ , $E_{c2}=250V$ , $E_{c1}=0$ <sup>C</sup> | 170   | MA.        |
| SCREEN CURRENT $E_b=75V$ , $E_{c2}=250V$ , $E_{c1}=0$ <sup>C</sup>    | 17    | MA         |

<sup>A</sup> THE DURATION OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE SCANNING SYSTEM WHICH IS 2.5 MILLISECONDS IN A 525-LINE, 30-FRAME.

<sup>B</sup> IN THE CASE OF GRID RESISTOR BIAS SOME PROTECTION IS NECESSARY FOR THE TUBE IN THE NO DRIVE CONDITIONS.

<sup>C</sup> INSTANTANEOUS VALUES.

\* HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

**SIMILAR TYPE REFERENCE:** *Except for heater ratings, and heater warm-up time the 9EF6 is identical to the 6EF6.*  
*Except for heater ratings, it is identical to the 12EF6.*