TUNG-SOL
BEAM PENTODE

COATED UNIPOTENTIAL CATHODE
HEATER
9.4 VOLTS 0.6 AMP.
AC OR DC
ANY MOUNTING POSITION

GLASS BULB

BOTTOM VIEW
INTERMEDIATE SHELL
8 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
GRID #1 TO CATHODE GRID #3, GRID #2, HEATER
PLATE TO CATHODE GRID #3, GRID #2, HEATER

0.8 µf
11.5 µf
9.0 µf

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM
VERTICAL DEFLECTION AMPLIFIER — PENTODE CONNECTED

HEATER VOLTAGE
MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER POSITIVE WITH RESPECT TO CATHODE
TOTAL DC AND PEAK
DC
HEATER NEGATIVE WITH RESPECT TO CATHODE
TOTAL DC AND PEAK
MAXIMUM PLATE VOLTAGE
MAXIMUM GRID #2 VOLTAGE
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABS. MAX.)
MAXIMUM PLATE DISSIPATION
MAXIMUM PEAK NEGATIVE PULSE GRID #1 VOLTAGE
MAXIMUM GRID #2 DISSIPATION
MAXIMUM AVERAGE CATHODE CURRENT
MAXIMUM PEAK CATHODE CURRENT
MAXIMUM GRID #1 CIRCUIT RESISTANCE (R=100 OHMS MIN.)
HEATER WARM-UP TIME (APPROX.)

9.4 VOLTS
200 VOLTS
100 VOLTS
200 VOLTS
250 VOLTS
250 VOLTS
2 000 VOLTS
10 WATTS
250 VOLTS
2.0 WATTS
60 MA.
180 MA.
2.2 MEGOHMS
11.0 SECONDS

CONTINUED ON FOLLOWING PAGE
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heater Voltage</td>
<td>9.4   volts</td>
</tr>
<tr>
<td>Heater Current</td>
<td>0.6   amp</td>
</tr>
<tr>
<td>Plate Voltage</td>
<td>250   volts</td>
</tr>
<tr>
<td>Grid #2 Voltage</td>
<td>250   volts</td>
</tr>
<tr>
<td>Grid #4 Voltage</td>
<td>-18   volts</td>
</tr>
<tr>
<td>Plate Current</td>
<td>50    ma</td>
</tr>
<tr>
<td>Grid #2 Current</td>
<td>2     ma</td>
</tr>
<tr>
<td>Transconductance</td>
<td>5000  μmhos</td>
</tr>
<tr>
<td>Grid #4 Voltage (approx.) for Ip=1 ma.</td>
<td>-40   volts</td>
</tr>
<tr>
<td>Plate Current for Eb=75V, Ec2=250V, Ect=0°C</td>
<td>170   ma</td>
</tr>
<tr>
<td>Screen Current for Eb=75V, Ec2=250V, Ect=0°C</td>
<td>17    ma</td>
</tr>
</tbody>
</table>

A. The duration of the voltage pulse must not exceed 15% of one scanning system which is 2.5 milliseconds in a 325-line, 30-frame.

B. In the case of grid resistor bias some protection is necessary for the tube in the no drive conditions.

C. Instantaneous values.

*Heater warm-up time is defined as the time required for the voltage across the heater to reach 90% 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.