THE 6AF4 AND 6AF4A ARE MEDIUM MU TRIDES IN THE 7 PIN MINIATURE CONSTRUCTION. THEY ARE DESIGNED FOR LOCAL OSCILLATOR SERVICE IN TELEVISION RECEIVERS WHICH OPERATE IN THE UHF REGION. INTERNAL LEAD INDUCTANCE IS REDUCED BY EMPLOYING DOUBLE CONNECTIONS TO THE PLATE AND GRID. ELECTRICALLY, THE 6AF4 IS IDENTICAL TO THE 6AF4A AND DIFFERS IN ENVELOPE SIZE.

DIRECT INTERELECTRODE CAPACITANCES
WITH EXTERNAL SHIELD #316 CONNECTED TO CATHODE EXCEPT AS NOTED

<table>
<thead>
<tr>
<th>Connection</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to Plate</td>
<td>1.9 pf</td>
</tr>
<tr>
<td>Grid to Cathode and Heater</td>
<td>2.2 pf</td>
</tr>
<tr>
<td>Plate to Cathode and Heater</td>
<td>1.4 pf</td>
</tr>
<tr>
<td>Heater to Cathode - SEE NOTE BELOW</td>
<td>2.2 pf</td>
</tr>
</tbody>
</table>

NOTE: WITH EXTERNAL SHIELD #316 CONNECTED TO PLATE

HEATER CHARACTERISTICS AND RATINGS
DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

<table>
<thead>
<tr>
<th>Average Characteristics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>6.3 Volts</td>
</tr>
<tr>
<td>Current</td>
<td>225 mA</td>
</tr>
</tbody>
</table>

LIMITS OF APPLIED VOLTAGE

<table>
<thead>
<tr>
<th>Peak Heater-Cathode Voltage:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heater Negative with respect to Cathode</td>
</tr>
<tr>
<td>Heater Positive with respect to Cathode</td>
</tr>
<tr>
<td>DC Component</td>
</tr>
</tbody>
</table>

CONTINUED ON FOLLOWING PAGE
### Maximum Ratings

**UHF Oscillator**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>150 V</td>
</tr>
<tr>
<td>Negative Grid Voltage</td>
<td>50 V</td>
</tr>
<tr>
<td>Plate Dissipation</td>
<td>2.5 W</td>
</tr>
<tr>
<td>Grid Current</td>
<td>2 mA</td>
</tr>
<tr>
<td>Cathode Current</td>
<td>24 mA</td>
</tr>
</tbody>
</table>

**Characteristics**

**Class A1 Amplifier**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>80 V</td>
</tr>
<tr>
<td>Cathode Resistor</td>
<td>150 Ω</td>
</tr>
<tr>
<td>Plate Current</td>
<td>17.5 mA</td>
</tr>
<tr>
<td>Transconductance</td>
<td>6,500 μS</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>13.5</td>
</tr>
<tr>
<td>Plate Resistance</td>
<td>APPROX. 2,100 Ω</td>
</tr>
</tbody>
</table>

### Typical Operation

**At Frequency of 1,000 Mc/s**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>100 V</td>
</tr>
<tr>
<td>Plate Resistor</td>
<td>220 Ω</td>
</tr>
<tr>
<td>Grid Resistor</td>
<td>10,000 Ω</td>
</tr>
<tr>
<td>Plate Current</td>
<td>17 mA</td>
</tr>
<tr>
<td>Grid Current</td>
<td>APPROX. 750 μA</td>
</tr>
</tbody>
</table>