**GENERAL DATA**

**Electrical:**

Heater, for Unipotential Cathodes:
- Voltage (AC or DC) ................. 6.3 ± 10% volts
- Current ................................ 0.75 amp

Direct Interelectrode Capacitances (Approx.):

<table>
<thead>
<tr>
<th>Unit No. 1</th>
<th>Unit No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to plate</td>
<td>1.8  4.4 μf</td>
</tr>
<tr>
<td>Grid to cathode and heater</td>
<td>1.5   5 μf</td>
</tr>
<tr>
<td>Plate to cathode and heater</td>
<td>0.3   1 μf</td>
</tr>
</tbody>
</table>

**Characteristics, Class A, Amplifier:**

<table>
<thead>
<tr>
<th>Unit No. 1</th>
<th>Unit No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Supply Voltage</td>
<td>250  60  150 volts</td>
</tr>
<tr>
<td>Grid Voltage</td>
<td>-3   0   - volts</td>
</tr>
<tr>
<td>Cathode Resistor</td>
<td>-    -   620 ohms</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>68   -    5</td>
</tr>
<tr>
<td>Plate Resistance (Approx.)</td>
<td>52000  -   920 ohms</td>
</tr>
<tr>
<td>Transconductance</td>
<td>1300  -   5400 μhos</td>
</tr>
<tr>
<td>Plate Current</td>
<td>1.2  80*  30 ma</td>
</tr>
<tr>
<td>Plate Current for grid volts</td>
<td>-3  0  3.5 ma</td>
</tr>
<tr>
<td>Grid Voltage (Approx.) for plate μa = 10</td>
<td>-5.5   -  - volts</td>
</tr>
<tr>
<td>Grid Voltage (Approx.) for plate μa = 200</td>
<td>-    -  -40 volts</td>
</tr>
</tbody>
</table>

**Mechanical:**

- Operating Position: Any
- Maximum Overall Length: 2-5/8"
- Maximum Seated Length: 2-3/8"
- Length, Base Seat to Bulb Top (Excluding tip): 2" ± 3/32"
- Diameter: 0.750" to 0.875"
- Dimensional Outline: See General Section
- Bulb: T6-1/2
- Base: Small-Button Noval 9-Pin (JEDEC No.E9-1)

**Basing Designation for BOTTOM VIEW:** 9LG

**Diagram:**

- Pin 1 - Plate of Unit No.2
- Pin 2 - Internal Connection—Do Not Use
- Pin 3 - Grid of Unit No.2
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Plate of Unit No.1
- Pin 7 - Grid of Unit No.1
- Pin 8 - Cathode of Unit No.1
- Pin 9 - Cathode of Unit No.2
VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No.1

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system:

DC PLATE VOLTAGE: .......... 350 max. volts
PEAK NEGATIVE-PULSE GRID VOLTAGE: .... 400 max. volts
PLATE DISSIPATION: ............. 1 max. watt
PEAK HEATER-CATHODE VOLTAGE:
    Heater negative with respect to cathode 200 max. volts
    Heater positive with respect to cathode 200 max. volts

Maximum Circuit Values:

Grid-Circuit Resistance: ........ 2.2 max. megohms

VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No.2

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system:

DC PLATE VOLTAGE: .......... 350 max. volts
PEAK POSITIVE-PULSE PLATE VOLTAGE: .... 1800 max. volts
PEAK NEGATIVE-PULSE GRID VOLTAGE: .... 250 max. volts
CATHODE CURRENT:
    Peak: ......................... 120 max. ma
    Average: ...................... 35 max. ma
PLATE DISSIPATION: .......... 5.5 max. watts
PEAK HEATER-CATHODE VOLTAGE:
    Heater negative with respect to cathode 200 max. volts
    Heater positive with respect to cathode 200 max. volts

Maximum Circuit Values:

Grid-Circuit Resistance:
    For cathode-bias operation: ... 2.2 max. megohms

\* This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.
\# As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.
\▲ The dc component must not exceed 100 volts.
\* This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.