Refer to chart at end of section.
For replacement use type 8FQ7/8CG7.
Refer to type 6CM7.
Refer to chart at end of section.
Refer to type 6CS7.
Refer to type 6CW5/EL86.
Refer to type 6CW5.
Refer to type 6CX8.
Refer to chart at end of section.
For replacement use type 8GN8/8EB8.
Refer to type 6EM5.
Refer to chart at end of section.
Refer to chart at end of section.
Refer to type 6FQ7/6CG7.
Refer to chart at end of section.
Refer to type 6GJ7/ECF801.
Refer to type 6GN8.
Refer to type 6GU7.
Refer to type 6JU8A.
Refer to type 6JV8.
Refer to type 6KA8.
Refer to type 6LC8.
Refer to type 6LT8.
Refer to chart at end of section.

MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE

9A8 / PCF80

Miniature type used as combined oscillator and mixer tubes in vhf color and black-and-white television receivers. Outlines section, 6B; requires miniature 9-contact socket. **Heater:** volts (ac/dc), 9; amperes, 0.3; maximum heater-cathode volts, +100, -200 peak; -120 average.

**Class A, Amplifier**

<table>
<thead>
<tr>
<th>MAXIMUM RATINGS (Design-Center Values)</th>
<th>Triode Unit</th>
<th>Pentode Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Supply Voltage</td>
<td>550</td>
<td>550</td>
</tr>
<tr>
<td>Plate Voltage</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Grid-No.2 (Screen-Grid) Voltage</td>
<td>14</td>
<td>175</td>
</tr>
<tr>
<td>Cathode Current</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Plate Dissipation</td>
<td>—</td>
<td>0.5</td>
</tr>
<tr>
<td>Grid-No.2 Input</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>volts</td>
<td>volts</td>
</tr>
<tr>
<td></td>
<td>volts</td>
<td>watts</td>
</tr>
<tr>
<td></td>
<td>mA</td>
<td>watts</td>
</tr>
<tr>
<td></td>
<td>watt</td>
<td></td>
</tr>
</tbody>
</table>
CHARACTERISTICS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>100</td>
<td>170</td>
<td>volts</td>
</tr>
<tr>
<td>Grid-No.1 Voltage</td>
<td>-2</td>
<td>-2</td>
<td>volts</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>20</td>
<td>47°</td>
<td></td>
</tr>
<tr>
<td>Plate Resistance (Approx.)</td>
<td>0.4</td>
<td></td>
<td>megohm</td>
</tr>
<tr>
<td>Transconductance</td>
<td>5000</td>
<td>6200</td>
<td>μmhos</td>
</tr>
<tr>
<td>Plate Current</td>
<td>14</td>
<td>10</td>
<td>mA</td>
</tr>
<tr>
<td>Grid-No.2 Current</td>
<td></td>
<td>2.8</td>
<td>mA</td>
</tr>
</tbody>
</table>

MAXIMUM CIRCUIT VALUES

<table>
<thead>
<tr>
<th>Circuit</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid-No.1-Circuit Operation</td>
<td>0.5</td>
<td>0.5</td>
<td>megohm</td>
</tr>
<tr>
<td>For cathode-bias operation</td>
<td>0.5</td>
<td>1</td>
<td>megohm</td>
</tr>
</tbody>
</table>

* Grid No.2 to Grid No.1.

9AH9
9AK10
9AM10
9AQ8/PCC85
9AU7
9BJ11
9BR7
9CL8
9EA8
9GH8A
9GV8
9GV8/XCL85
9JW8/PCF802
9KC6

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to type 12AU7A.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to chart at end of section.

Refer to type 6GH8A.

Refer to chart at end of section.

Refer to type 6GV8/ECL85.

Refer to type 6JW8/ECF802.

Refer to chart at end of section.

9KX6

SHARP-CUTOFF PENTODE

Miniature type with frame grid used as video output amplifier in color and black-and-white television receivers. Outlines section, 6E; requires miniature 9-contact socket. Heater: volts, 8.7; amperes, 0.45; warm-up time, 11 seconds; maximum heater-cathode volts, ±200 peak, 100 average.

CLASS A. AMPLIFIER

MAXIMUM RATINGS (Design-Maximum Values)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>400</td>
<td></td>
<td>volts</td>
</tr>
<tr>
<td>Grid-No.3 (Suppressor-Grid) Voltage, Positive value</td>
<td>300</td>
<td></td>
<td>volts</td>
</tr>
<tr>
<td>Grid-No.2 (Screen-Grid) Supply Voltage</td>
<td>See curve page 300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grid-No.2 Voltage</td>
<td></td>
<td>0</td>
<td>volts</td>
</tr>
<tr>
<td>Grid-No.1 (Control-Grid) Voltage, Positive value</td>
<td>11.5</td>
<td></td>
<td>watts</td>
</tr>
<tr>
<td>Plate Dissipation</td>
<td></td>
<td>1.5</td>
<td>watts</td>
</tr>
<tr>
<td>Grid-No.2 Input</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CHARACTERISTICS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>250</td>
<td></td>
<td>volts</td>
</tr>
<tr>
<td>Grid-No.3 Voltage</td>
<td>Connected to cathode at socket</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grid-No.2 Supply Voltage</td>
<td>150</td>
<td>125</td>
<td>volts</td>
</tr>
<tr>
<td>Grid-No.1 Voltage</td>
<td>0</td>
<td>0</td>
<td>volts</td>
</tr>
</tbody>
</table>
Cathode-Bias Resistor, Bypassed ........................................ 56 ohms
Plate Resistance (Approx.) ........................................... 50000 ohms
Transconductance (Grid No.1 to Plate) ............................ 36000 μmhos
Plate Current .............................................................. 28 mA
Grid-No.2 Current ....................................................... 24 mA
Grid-No.1 Voltage (Approx.) for plate current of 100 μA ............ — — volts

MAXIMUM CIRCUIT VALUES
Grid-No.1-Circuit Resistance:
  For fixed-bias operation ............................................. 0.1 megohm
  For cathode-bias operation ......................................... 0.25 megohm

Refer to type 6KZ8.
Refer to chart at end of section.
Refer to type 6LA6.
Refer to type 6MN8.
For replacement use type 10DE7.
Refer to type 6U8A.
Refer to chart at end of section.
Refer to type 6AL11.
Refer to type 6BQ5.
Refer to chart at end of section.
Refer to chart at end of section.
Refer to type 6CW5/EL86.
Refer to type 6DE7.
Refer to type 6DR7.
Refer to chart at end of section.
Refer to type 6DX8/ECL84.
Refer to chart at end of section.
Refer to type 6EM7.
Refer to type 6EW7.
Refer to chart at end of section.
Refer to type 6GF7A.
Refer to type 6GK6.
Refer to type 6GN8.
Refer to type 6GV8/ECL85.
Refer to type 6HF8.
Refer to chart at end of section.
Refer to type 10JA8/10LZ8