THE 50CA5 IS A BEAM PENTODE USING THE 7 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED PRIMARILY FOR USE IN THE AUDIO FREQUENCY POWER OUTPUT STAGE OF TELEVISION AND RADIO RECEIVERS. IT FEATURES HIGH POWER SENSITIVITY AT RELATIVELY LOW PLATE AND SCREEN VOLTAGES. EXCEPT FOR HEATER RATINGS, IT IS IDENTICAL TO THE 6AC5.

DIRECT INTERELECTRODE CAPACITANCES
WITH NO EXTERNAL SHIELD

GRID #1 TO PLATE  0.5 μf
INPUT  15 μf
OUTPUT  9 μf

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE  50 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  130 VOLTS
MAXIMUM GRID #2 VOLTAGE  130 VOLTS
MAXIMUM POSITIVE DC GRID #1 VOLTAGE  0 VOLTS
MAXIMUM PLATE DISSIPATION  5.0 WATTS
MAXIMUM GRID #2 DISSIPATION  1.4 WATTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE:
    FIXED BIAS  0.1 MEGOHM
    CATHODE BIAS  0.5 MEGOHM
    BULB TEMPERATURE AT HOTTEST POINT  180 °C

CONTINUED ON FOLLOWING PAGE
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEATER VOLTAGE</td>
<td>50</td>
<td>VOLTS</td>
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<tr>
<td>HEATER CURRENT</td>
<td>0.15</td>
<td>AMP.</td>
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<tr>
<td>PLATE VOLTAGE</td>
<td>110</td>
<td>125</td>
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<tr>
<td>GRID #2 VOLTAGE</td>
<td>110</td>
<td>125</td>
</tr>
<tr>
<td>GRID #1 VOLTAGE</td>
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<td>-4.5</td>
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<tr>
<td>PEAK AF GRID #1 VOLTAGE</td>
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<tr>
<td>PLATE RESISTANCE (APPROX.)</td>
<td>16000</td>
<td>15000</td>
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<tr>
<td>TRANSCONDUCTANCE</td>
<td>8100</td>
<td>9200</td>
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<td>MAXIMUM SIGNAL PLATE CURRENT (APPROX.)</td>
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<td>MA.</td>
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<tr>
<td>ZERO-SIGNAL GRID #2 CURRENT</td>
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<td>MAXIMUM SIGNAL GRID #2 CURRENT (APPROX.)</td>
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<td>MA.</td>
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<td>LOAD RESISTANCE</td>
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<td>TOTAL HARMONIC DISTORTION (APPROX.)</td>
<td>5</td>
<td>PERCENT</td>
</tr>
<tr>
<td>MAXIMUM SIGNAL POWER OUTPUT</td>
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<td>1.5</td>
</tr>
</tbody>
</table>

50CA5

\[ E_f = 50 \text{ Volts} \]
\[ E_{c2} = 125 \text{ Volts} \]

\[ l_b \]
\[ l_{c4} \]

\[ l_b \text{ at } E_{c1} = 0 \]

\[ l_{c4} \text{ at } E_{c1} = 0 \]

\[ -1.0 \]
\[ -2.0 \]
\[ -3.0 \]
\[ -4.0 \]
\[ -5.0 \]
\[ -6.0 \]
\[ -7.0 \]
\[ -8.0 \]
\[ -10 \]