THE 17C5 IS A BEAM POWER AMPLIFIER USING THE 7 PIN MINIATURE CONSTRUCTION. BECAUSE OF ITS HIGH POWER SENSITIVITY AT LOW PLATE-SCREEN VOLTAGE, IT IS PARTICULARLY ADAPTABLE TO AC/DC RECEIVER APPLICATIONS. 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. EXCEPT FOR HEATER RATINGS AND HEATER WARM-UP TIME THE 17C5 IS IDENTICAL TO THE 50C5.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.
WITH NO EXTERNAL SHIELD

| GRID TO PLATE: G1 TO P | 0.6 ΜΜF |
| INPUT: G2 TO (H4+G3+G2) | 13.5 ΜΜF |
| OUTPUT: P TO (H4+G3+G2) | 8.5 ΜΜF |

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE
16.8 VOLTS

MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER POSITIVE WITH RESPECT TO CATHODE
DC COMPONENT
TOTAL DC AND PEAK
HEATER NEGATIVE WITH RESPECT TO CATHODE
DC COMPONENT
TOTAL DC AND PEAK
100 VOLTS
200 VOLTS
200 VOLTS
300 VOLTS

MAXIMUM PLATE VOLTAGE
135 VOLTS
117 VOLTS

MAXIMUM GRID #2 VOLTAGE
6.0 WATTS

MAXIMUM GRID #2 DISSIPATION
1.25 WATTS

MAXIMUM POSITIVE DC GRID #1 VOLTAGE
0 VOLTS

MAXIMUM GRID #1 CIRCUIT RESISTANCE:
FIXED BIAS
CATHODE BIAS
0.1 MEGOHM
0.5 MEGOHM

MAXIMUM BULB TEMPERATURE
AT HOTTEST POINT ON BULB SURFACE
220 °C

HEATER WARM-UP TIME
11.0 SECONDS

ALL ELECTRICAL DATA EXCEPT HEATER CHARACTERISTICS FOR TYPE 17C5 ARE IDENTICAL WITH THOSE OF TYPES 12C5, 12C5S, 50C5S, 25C5, AND 50B5.

*HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% 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.

#INDICATES AN ADDITION.
—INDICATES A CHANGE.

CONTINUED ON FOLLOWING PAGE
**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS**

**CLASS A1 AMPLIFIER**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>HEATER VOLTAGE</td>
<td>16.8</td>
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<tr>
<td>HEATER CURRENT</td>
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<tr>
<td>PLATE VOLTAGE</td>
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<tr>
<td>GRID #2 VOLTAGE</td>
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<tr>
<td>GRID #1 VOLTAGE</td>
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<td>PEAK AF GRID #1 VOLTAGE</td>
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<tr>
<td>ZERO-SIGNAL PLATE CURRENT</td>
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<td>ZERO-SIGNAL GRID #2 CURRENT</td>
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<tr>
<td>MAXIMUM SIGNAL PLATE CURRENT</td>
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<td>MAXIMUM SIGNAL GRID #2 CURRENT</td>
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<td>PLATE RESISTANCE (APPROX.)</td>
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<td>TRANSCONDUCTANCE</td>
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<td>LOAD RESISTANCE</td>
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<tr>
<td>TOTAL HARMONIC DISTORTION</td>
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</tr>
<tr>
<td>MAXIMUM SIGNAL POWER OUTPUT</td>
<td>~2.3</td>
</tr>
</tbody>
</table>

**Graph**

The graph shows the power output (P₀) versus load resistance (R₁) in kilohms for the 17C5 pentode connection. The graph includes the following conditions:

- \( E_r = 50 \text{ Volts} \)
- \( E_b = 110 \text{ Volts} \)
- \( E_{C2} = 110 \text{ Volts} \)
- \( E_{C1} = -7.5 \text{ Volts} \)
- \( E_{\text{sig}} = 5.3 \text{ Volts RMS} \)

The total harmonic distortion is indicated on the graph.