THE 12C5 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 IN 600 MA. SERIES HEATER OPERATED TELEVISION RECEIVERS. 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 IT IS IDENTICAL TO THE 50C5.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.*
WITH NO EXTERNAL SHIELD

GRID #1 TO PLATE
0.6 ⇔ 150 f
INPUT
13.0 ⇔ 150 f
OUTPUT
8.5 ⇔ 150 f

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE
12.6 VOLTS
MAXIMUM HEATER—CATHODE VOLTAGE:
HEATER NEGATIVE WITH RESPECT TO CATHODE
TOTAL DC AND PEAK
200 ⇔ VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE
DC
100 VOLTS
TOTAL DC AND PEAK
200 VOLTS
MAXIMUM PLATE VOLTAGE
135 VOLTS
MAXIMUM GRID #2 VOLTAGE
117 VOLTS
MAXIMUM PLATE DISSIPATION
6 ⇔ WATTS
MAXIMUM GRID #2 DISSIPATION
1.25 WATTS
MAXIMUM POSITIVE DC GRID #1 VOLTAGE
0* VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE:
CATHODE BIAS
0.5 MEGOHM
FIXED BIAS
0.1 MEGOHM
MAXIMUM BULB TEMPERATURE
(AT HOTTEST POINT ON BULB SURFACE)
220 ◦C
HEATER WARM-UP TIME (APPROX.) B
11.0 SECONDS

* INDICATES AN ADDITION
→ INDICATES A CHANGE.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL ELECTRIC INC. ELECTRON TUBE DIVISION BLOOMFIELD, NEW JERSEY, U.S.A. JANUARY 1, 1958 PLATE #5160
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A\textsubscript{1} AMPLIFIER - AF POWER AMPLIFIER

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEATER VOLTAGE</td>
<td>12.6 V</td>
</tr>
<tr>
<td>HEATER CURRENT</td>
<td>0.6 A</td>
</tr>
<tr>
<td>PLATE VOLTAGE</td>
<td>120 V</td>
</tr>
<tr>
<td>GRID #2 VOLTAGE</td>
<td>110 V</td>
</tr>
<tr>
<td>GRID #1 VOLTAGE (CONTROL GRID)</td>
<td>-8 V</td>
</tr>
<tr>
<td>PEAK AF GRID #4 VOLTAGE</td>
<td>1 V</td>
</tr>
<tr>
<td>PLATE RESISTANCE (APPROX.)</td>
<td>10 000 Ω</td>
</tr>
<tr>
<td>TRANSCONDUCTANCE</td>
<td>7 500 μS</td>
</tr>
<tr>
<td>ZERO-SIGNAL PLATE CURRENT</td>
<td>49 mA</td>
</tr>
<tr>
<td>MAXIMUM SIGNAL PLATE CURRENT</td>
<td>50 mA</td>
</tr>
<tr>
<td>ZERO-SIGNAL GRID #2 CURRENT</td>
<td>4 mA</td>
</tr>
<tr>
<td>MAXIMUM SIGNAL GRID #2 CURRENT</td>
<td>8.5 mA</td>
</tr>
<tr>
<td>LOAD RESISTANCE</td>
<td>2 500 Ω</td>
</tr>
<tr>
<td>TOTAL HARMONIC DISTORTION</td>
<td>10 %</td>
</tr>
<tr>
<td>MAXIMUM SIGNAL POWER OUTPUT</td>
<td>2.3 W</td>
</tr>
</tbody>
</table>

ALL ELECTRICAL DATA FOR TYPE 12C5 ARE IDENTICAL WITH THOSE OF TYPE 12C5A.

ALL ELECTRICAL DATA EXCEPT HEATER CHARACTERISTICS ARE IDENTICAL WITH THOSE OF TYPES 12C5, 2SC5, 5085, AND 5085.