THE 12DM5 IS A BEAM POWER PENTODE IN THE 7-PIN MINIATURE CONSTRUCTION
AND IS INTENDED FOR APPLICATION AS AN AUDIO POWER OUTPUT TUBE IN TELE-
VISION 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.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

GRID TO PLATE: G4 TO P
INPUT: G4 TO K+H+G4+B.F.
OUTPUT: P TO K+H+G2+B.P.

0.55 µµµf
13 µµµf
9 µµµf

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE
12.6 VOLTS

MAXIMUM PLATE VOLTAGE
135 VOLTS

MAXIMUM GRID #2 VOLTAGE
117 VOLTS

MAXIMUM PLATE DISSIPATION
5.5 WATTS

MAXIMUM GRID #2 DISSIPATION
1.25 WATTS

MAXIMUM GRID CIRCUIT RESISTANCE
FUSED BIASFUSED BIASFUSED BIASFUSED BIASFUSED BIASFUSED BIAS
CATHODE BIAS
0.1 MEGOHMS
0.5 MEGOHMS

MAXIMUM PEAK HEATER-CATHODE VOLTAGE
HEATER NEGATIVE WITH RESPECT TO CATHODE
HEATER POSITIVE WITH RESPECT TO CATHODE

200 VOLTS
200 VOLTS

MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)
250 ºC

HEATER WARM-UP TIME (APPROX.)
11.0 SECONDS

A DC COMPONENT MUST NOT EXCEED 100 VOLTS MAX.

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.

CONTINUED ON FOLLOWING PAGE
## Typical Operating Conditions and Characteristics

<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>0.45 A</td>
</tr>
<tr>
<td>Plate voltage</td>
<td>110 V</td>
</tr>
<tr>
<td>Grid #2 (screen) voltage</td>
<td>110 V</td>
</tr>
<tr>
<td>Grid #1 (control-grid) voltage</td>
<td>7.5 V</td>
</tr>
<tr>
<td>Plate resistance (approx.)</td>
<td>14000 Ω</td>
</tr>
<tr>
<td>Transconductance</td>
<td>7.5 Ωm</td>
</tr>
<tr>
<td>Grid #1 input voltage, peak AF</td>
<td>49 F</td>
</tr>
<tr>
<td>Plate current, zero signal</td>
<td>50 F</td>
</tr>
<tr>
<td>Plate current, maximum signal</td>
<td>40 F</td>
</tr>
<tr>
<td>Grid #2 current, zero signal</td>
<td>8.5 F</td>
</tr>
<tr>
<td>Grid #2 current, maximum signal</td>
<td>2500 Ω</td>
</tr>
<tr>
<td>Load resistance impedance</td>
<td>9 %</td>
</tr>
<tr>
<td>Power output, maximum signal</td>
<td>1.9 W</td>
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