NO ION-TRAP MAGNET REQUIRED
RECTANGULAR GLASS TYPE  ALUMINIZED SCREEN
MAGNETIC FOCUS  70° MAGNETIC DEFLECTION

Electrical:
Direct Interelectrode Capacitances:
  Cathode to all other electrodes .... 5 pf
  Grid No.1 to all other electrodes .... 6 pf
  External conductive coating to anode .... \begin{align*}
  &1500 \text{ max.} \text{ pf} \\
  &750 \text{ min.} \text{ pf}
\end{align*}
Heater Current at 6.3 volts .............. 600 ± 60 ma
Electron Gun. ................................ Type Requiring
No Ion-Trap Magnet

Optical:
Phosphor (For curves, see front of this section) . P4—Sulfide Type, Aluminized
Faceplate, Spherical ................................ Filterglass
Light transmission (Approx.) ............ 74%

Mechanical:
Weight (Approx.) ................................... 18 lbs
Overall Length .................................. 19-3/16" ± 3/8"
Neck Length .................................... 7-1/2" ± 3/16"
Projected Area of Screen ................. 149 sq. in.
External Conductive Coating:
Type .................................................. Regular-Band
Contact area for grounding .................. Near Reference Line
For Additional Information on Coatings and Dimensions:
See Picture-Also Dimensional-Outlines and Bulb J1938/D sheets at front of this section
Cap ..................................... Recessed Small Cavity (JEDEC No.J1-21)
Base ..................................... Small-Shell Duodecal 5-Pin (JEDEC Group 4,
No.B5-57)
Basing Designation for BOTTOM VIEW ........... 12N

Pin 1—Heater
Pin 2—Grid No.1
Pin 10—Grid No.2
Pin 11—Cathode
Pin 12—Heater

Cap—Anode
(Grind No.3, Screen, Collector)
C—External Conductive Coating

RADIO CORPORATION OF AMERICA
Electronic Components and Devices  Harrison, N. J.
Maximum and Minimum Ratings, Design-Maximum Values:

Unless otherwise specified, voltage values are positive with respect to cathode

<table>
<thead>
<tr>
<th>Component</th>
<th>Maximum Values</th>
<th>Minimum Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>17500 max.</td>
<td>volts</td>
</tr>
<tr>
<td>Grid-No.2 Voltage</td>
<td>550 max.</td>
<td>volts</td>
</tr>
<tr>
<td>Grid-No.1 Voltage:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative peak value</td>
<td>220 max.</td>
<td>volts</td>
</tr>
<tr>
<td>Negative bias value</td>
<td>155 max.</td>
<td>volts</td>
</tr>
<tr>
<td>Positive bias value</td>
<td>0 max.</td>
<td>volts</td>
</tr>
<tr>
<td>Positive peak value</td>
<td>2 max.</td>
<td>volts</td>
</tr>
<tr>
<td>Heater Voltage</td>
<td>6.9 max.</td>
<td>volts</td>
</tr>
<tr>
<td></td>
<td>5.7 min.</td>
<td>volts</td>
</tr>
</tbody>
</table>

Peak Heater-Cathode Voltage:

Heater negative with respect to cathode:

During equipment warm-up period not exceeding 15 seconds: 450 max. volts

After equipment warm-up period: 165 max. volts

Heater positive with respect to cathode:

Combined AC and DC voltage: 165 max. volts

DC component: 100 max. volts

Typical Operating Conditions for Grid-Drive Service:

Unless otherwise specified, voltage values are positive with respect to cathode

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>12000 volts</td>
</tr>
<tr>
<td>Grid-No.2 Voltage</td>
<td>300 volts</td>
</tr>
<tr>
<td>Grid-No.1 Voltage for visual extinction of focused raster</td>
<td>-28 to -72 volts</td>
</tr>
</tbody>
</table>

Maximum Circuit Value:

Grid-No.1-Circuit Resistance: 1.5 max. megarms

For X-radiation shielding considerations, see sheet X-RADIATION PRECAUTIONS FOR CATHODE-RAY TUBES at front of this Section