DESCRIPTION
19" Direct View Low G2 Voltage (50V.)
Rectangular Glass Envelope Cathode Drive Design
Spherical Faceplate 114° Magnetic Deflection
Gray Filter Glass Electrostatic Focus
Aluminized Screen External Conductive Coating
6.3 Volt, 600 Ma. Heater No Ion Trap

ELECTRICAL DATA
Focusing Method Electrostatic
Deflection Angles, Approximate
  Horizontal 103 Degrees
  Vertical 86 Degrees
  Diagonal 114 Degrees
Direct Interelectrode Capacitances
  Cathode to all other electrodes, approximate 5 uuf
  Grid #1 to all other electrodes, approximate 6 uuf
  External Conductive Coating to Anode 1900 max. uuf
                                      1400 min. uuf
Heater Current at 6.3 volts
  600 ± 10% Ma
Heater Warm-up time
  11 Seconds

OPTICAL DATA
Phosphor Number P4, Aluminized
Light Transmittance at Center, Approximate 78 Percent

MECHANICAL DATA
Overall Length 11 5/8 ± 1/4 Inches
Greatest Diameter of Tube
  Diagonal 18 5/8 ± 1/8 Inches
  Width 16 13/32 ± 1/8 Inches
  Height 13 11/32 ± 1/8 Inches
Minimum Useful Screen Dimensions (Projected)
  Diagonal 17 9/16 Inches
  Horizontal Axis 15 1/8 Inches
  Vertical Axis 12 Inches
  Area 172 Sq. Inches
Neck Length 4 3/8 ± 1/8 Inches
Bulb J 149 A1 or equivalent
Bulb Contact J1-21
Base B6-214
Basing 7FA
Bulb Contact Alignment
  Anode contact aligns with pin position #7 ± 30 Degrees

from JEDEC release #3549, Jan. 1, 1962

Dec., 1961
RATINGS (Design Maximum System)

Unless otherwise specified, voltages are positive and measured with respect to Grid #1

<table>
<thead>
<tr>
<th>Voltage Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Anode Voltage</td>
<td>19,800 Volts</td>
</tr>
<tr>
<td>Minimum Anode Voltage</td>
<td>12,000 Volts</td>
</tr>
<tr>
<td>Maximum Grid #4 (Focusing Electrode) Voltage</td>
<td>1100 -500 Volts</td>
</tr>
<tr>
<td>Maximum Grid #2 Voltage</td>
<td>70 Volts</td>
</tr>
<tr>
<td>Minimum Grid #2 Voltage</td>
<td>40 Volts</td>
</tr>
<tr>
<td>Cathode Voltage</td>
<td>100 Volts</td>
</tr>
<tr>
<td>Maximum Heater Voltage</td>
<td>7 Volts</td>
</tr>
<tr>
<td>Minimum Heater Voltage</td>
<td>5.8 Volts</td>
</tr>
<tr>
<td>Maximum Heater-Cathode Voltage</td>
<td></td>
</tr>
<tr>
<td>Heater negatives with respect to cathode</td>
<td></td>
</tr>
<tr>
<td>During warm-up period not to exceed 15 seconds</td>
<td>-410 Volts</td>
</tr>
<tr>
<td>After equipment warm-up period</td>
<td>-180 Volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>180 Volts</td>
</tr>
</tbody>
</table>

TYPICAL OPERATING CONDITIONS

CATHODE DRIVE SERVICE

Unless otherwise specified, all voltage values are positive with respect to Grid #1

<table>
<thead>
<tr>
<th>Voltage Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>16,000 Volts</td>
</tr>
<tr>
<td>Grid #4 Voltage (Focusing Electrode)</td>
<td>250 Volts</td>
</tr>
<tr>
<td>Grid #2 Voltage</td>
<td>50 Volts</td>
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<tr>
<td>Cathode Voltage</td>
<td>35 to 50 Volts</td>
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</table>

MAXIMUM CIRCUIT VALUES

<table>
<thead>
<tr>
<th>Circuit Resistance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Grid #1 Circuit Resistance</td>
<td>1.5 Megohms</td>
</tr>
</tbody>
</table>

NOTES

1. Visual extinction of focused raster.

2. With the combined grid #1 bias voltage and video-signal voltage adjusted to give an anode current of 150 microamperes on a 15 1/8 x 12 pattern from 2F21 Monoscope or equivalent.

3. Individual tubes will have satisfactory focus at some value between 0 and 500 volts.
NOTE:

1. REFERENCE LINE AS DETERMINED BY PLANE C-C' OF J.E.D.E.C. REFERENCE LINE GAUGE NO. 126

2. BASE PIN NO. 7 ALIGNS WITH ANODE CONTACT WITHIN 30°