CHARACTERISTICS

GENERAL DATA
Focusing Method .................. Electrostatic
Deflection Method ................. Magnetic
Deflection Angles (Approx.)
  Horizontal ..................... 81 Degrees
  Diagonal ....................... 92 Degrees
  Vertical ....................... 67 Degrees
Phosphor ........................ Aluminized P4
Fluorescence .................... White
Persistence ...................... Short to Medium
Faceplate ........................ Bonded Shield
(Gray Filter Glass Safety Plate Laminated
  Directly to Face of Tube)
Light Transmittance of Faceplate Assembly
  (Approx.) ...................... 44 Percent
External Surface Treated to Reduce Specular Reflection

ELECTRICAL DATA
Heater Voltage .................. 6.3 Volts
Heater Current .................. 0.60 ± 5 % A,ppere
Heater Warm-up Time 1 ........... 11 Seconds
Direct Interelectrode Capacitances (Approx.)
  Cathode to All Other Electrodes ........ 5 µF
  Grid No. 1 to All Other Electrodes ........ 6 µF
  External Conductive Coating to Anode 2 ........ 1700 µF Max.
  .......................................... 1400 µF Min.

MECHANICAL DATA
Minimum Useful Screen Dimensions
  (Maximum Assured)
  Height ......................... 12½ ¾ Inches
  Width ......................... 15½ 4 Inches
  Diagonal ....................... 17½ 8 Inches
  Area .......................... 172 Sq. Inches
Neck Length ..................... 5½ ± ¾ Inches
Overall Length .................. 15½ ± ¾ Inches
Bulb ............................ J149D
Safety Plate ..................... FP159B
Bulb Contact (Recessed Small Cavity Cap) ...... J1-21
Base ............................ B6-203
Basing .......................... 12L
Weight (Approx.) ................ 20 Pounds

RATINGS
MAXIMUM RATINGS (Design Maximum Values) Grid Drive Service

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximum Anode Voltage</th>
<th>Minimum Anode Voltage</th>
<th>Grid No. 4 Voltage (Focusing Electrode)</th>
<th>Grid No. 2 Voltage</th>
<th>Grid No. 1 Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Voltage</td>
<td>20,000 Volts</td>
<td>11,000 Volts</td>
<td>-550 to +1100 Volts</td>
<td>550 Volts</td>
<td>155 Volts</td>
</tr>
<tr>
<td>Negative Bias Value</td>
<td>dc</td>
<td>dc</td>
<td>dc</td>
<td>dc</td>
<td>dc</td>
</tr>
<tr>
<td>Negative Peak Value</td>
<td>155 Volts</td>
<td>220 Volts</td>
<td>0 Volts</td>
<td>2 Volts</td>
<td></td>
</tr>
<tr>
<td>Positive Bias Value</td>
<td>dc</td>
<td>dc</td>
<td>dc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak Heater-Cathode Voltage</td>
<td>dc</td>
<td>dc</td>
<td>dc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heater Negative with Respect to Cathode</td>
<td>450 Volts</td>
<td>200 Volts</td>
<td>200 Volts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During Warm-up Period not to Exceed 15</td>
<td>Seconds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Equipment Warm-up Period</td>
<td>450 Volts</td>
<td>200 Volts</td>
<td>200 Volts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SYLVANIA ELECTRONIC TUBES
A Division of Sylvania Electric Products Inc.
PICTURE TUBE OPERATIONS
SENECA FALLS, NEW YORK
Prepared and Released By The TECHNICAL PUBLICATIONS SECTION EMORIUM, PENNSYLVANIA MARCH, 1962 PAGE 1 OF 2
FILE UNDER TELEVISION PICTURE TUBES
TYPICAL OPERATING CONDITIONS, Grid Drive Service

- Anode Voltage: 16,000 Volts dc
- Grid No. 4 Voltage for Focus: 0 to +400 Volts dc
- Grid No. 2 Voltage: 300 Volts dc
- Grid No. 1 Voltage Required for Cutoff: -35 to -72 Volts dc

CIRCUIT VALUES

- Grid No. 1 Circuit Resistance: 1.5 Megohms Max.

NOTES:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.

2. External conductive coating must be grounded.

3. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.

OUTLINE

DIAGRAM NOTES:

1. Reference line is determined by plane C-C' of JEDEC No. 116 Reference Line Gauge, when the gauge is seated against the bulb.

2. Base pin No. 6 aligns with horizontal centerline (A-A') within 30° and is on same side as anode contact, J1-21.

3. Planes perpendicular to the tube axis and passing through points X, Y, and Z are as follows:
   - Plane tangent to crown of face to plane of X: 0.500 nom.
   - Plane of X to plane of Y: 0.421" ± .025"
   - Plane of X to plane of Z: 0.738" ± .045"

4. Dimensions are in inches.