DESCRIPTION

The 11DP4 is an 11 inch electrostatic focus and magnetic deflection rectangular glass picture tube. Outstanding features include a short overall length, a small neck diameter and a non-ion trap gun designed for operation at low grid 2 voltage for use in cathode drive circuits. The screen is aluminised to increase light output and reduce undesirable screen charging. An external conductive coating is provided to serve as a filter capacitor when grounded.

ELECTRICAL DATA

Focusing Method  Electrostatic
Deflection Method  Magnetic
Deflection Angles (Approximate)
  Diagonal  110 degrees
  Horizontal  99 degrees
  Vertical  82 degrees
Direct Interelectrode Capacitances
  Cathode to All Other Electrodes (Approximate)  5 uuf
  Grid No. 1 to All Other Electrodes (Approximate)  6 uuf
  External conductive coating to anode  750 max. uuf
                                          500 min. uuf
                                          450 ± 23 ma
Heater Current at 6.3 volts
Heater Warm-up Time  11 seconds
Electron Gun
  Ion Trap  None
  Focus Lens  Unipotential

from JEDEC release #4522, Dec. 9, 1963
OPTICAL DATA

Phosphor Number

Light Transmittance at Center (Approximate)

Antireflection Treatment

MECHANICAL DATA

Overall Length

Neck Length

Greatest Dimensions of Tube (At mold seam)
  Diagonal
  Width
  Height

Minimum Useful Screen Dimensions (Projected)
  Diagonal
  Horizontal Axis
  Vertical Axis
  Area

Implosion Protection

Bulb

Shield

Bulb Contact

Base

Basing

Bulb Contact Alignment

Anode contact aligns with Pin Position No. 4

P4 Aluminized

80
g per casent

None

8.15/16 \pm 1/4\ inches

4.1/4 \pm 1/8.\ inches

10.7/8 \pm 2/8\ inches

9.3/4 \pm 1/8\ inches

8 \pm 1/8.\ inches

10.3/16\ inches

9.\ inches

7.1/8\ inches

60\ sq.\ inches

None

J-87

None

J1-21

B7-208

8HR

\pm 30\ degrees
**RATINGS (Design Maximum System)**

Unless otherwise specified, voltage values are positive and measured with respect to Grid No. 1.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Anode Voltage</td>
<td>15,000</td>
<td>volts</td>
</tr>
<tr>
<td>Minimum Anode Voltage</td>
<td>9,000</td>
<td>volts</td>
</tr>
<tr>
<td>Maximum Grid No. 4 (Focusing Electrode)Voltage</td>
<td>-500 to +1000 volts</td>
<td></td>
</tr>
<tr>
<td>Maximum Grid No. 2 Voltage</td>
<td>60</td>
<td>volts</td>
</tr>
<tr>
<td>Minimum Grid No. 2 Voltage</td>
<td>25</td>
<td>volts</td>
</tr>
<tr>
<td>Cathode Voltage</td>
<td></td>
<td></td>
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<tr>
<td>Maximum negative value</td>
<td>0</td>
<td>volts dc</td>
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<tr>
<td>Maximum negative peak value</td>
<td>2</td>
<td>volts</td>
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<tr>
<td>Maximum positive value</td>
<td>100</td>
<td>volts dc</td>
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<tr>
<td>Maximum positive peak value</td>
<td>150</td>
<td>volts</td>
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<td>Maximum Heater Voltage</td>
<td>6.9</td>
<td>volts</td>
</tr>
<tr>
<td>Minimum Heater Voltage</td>
<td>5.7</td>
<td>volts</td>
</tr>
<tr>
<td>Maximum Heater - Cathode Voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heater negative with respect to cathode During warm-up period not to exceed 15 seconds.</td>
<td>450</td>
<td>volts</td>
</tr>
<tr>
<td>After equipment warm-up period</td>
<td>200</td>
<td>volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>200</td>
<td>volts</td>
</tr>
</tbody>
</table>

**TYPICAL OPERATING CONDITIONS**

**CATHODE DRIVE SERVICE**

Unless otherwise specified, all voltage values are positive with respect to Grid No. 1.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>11,000</td>
<td>volts dc</td>
</tr>
<tr>
<td>Grid No. 4 Voltage (Focusing Electrode)(Notes 2 and 3)</td>
<td>0</td>
<td>volts dc</td>
</tr>
<tr>
<td>Grid No. 2 Voltage</td>
<td>50</td>
<td>volts dc</td>
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<tr>
<td>Cathode Voltage (Note 1)</td>
<td>11 to 49</td>
<td>volts dc</td>
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</table>
MAXIMUM CIRCUIT VALUES

Maximum Grid No. 1 Circuit Resistance 1.5 megohms

NOTES

1. Visual extinction of focused raster.

2. With the combined Grid No. 1 bias voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 9" by 7 1/8" pattern from RCA 2P21 monoscope or equivalent.

3. Individual tubes will have satisfactory focus at same value between -100 and +300 volts.
OUTLINE DRAWING

NOTES:

1. The plane through the tube axis and pin No. 4 may vary from the plane through the tube axis and bulb contact by an angular tolerance (measured about the tube axis) of ± 30°. Bulb Contact is on the same side as pin No. 4.

2. Reference line as determined by reference line gauge No. C126.

3. Deflection angle on the diagonal is 110 degrees.

4. Measured at mold seam.

5. All dimensions in inches.

6. Not to scale.

PIN CONNECTIONS:
Pin 1: Heater
Pin 2: Grid No. 1
Pin 3: Grid No. 2
Pin 4: Grid No. 4
Pin 6: Grid No. 1
Pin 7: Cathode
Pin 8: Heater
Bulb Contact: Anode