### ADVANCE DATA

#### CHARACTERISTICS

**GENERAL DATA**

- **Focusing Method**: Electrostatic
- **Deflecting Method**: Magnetic
- **Deflecting Angle (approx.)**
  - Horizontal: 65 Degrees
  - Diagonal: 70 Degrees
- **Phosphor**: Aluminized, P4 White
- **Fluorescence**: Short to Medium
- **Persistence**: Gray Filter Glass
- **Faceplate**: Grey
- **Light Transmittance (approx.)**: 74 Percent

**ELECTRICAL DATA**

- **Heater Voltage**: 6.3 Volts
- **Heater Current**: 0.3 ± 5% Ampere
- **Heater Warm-up Time**: 11 Seconds
- **Direct Interelectrode Capacitances (approx.)**
  - Cathode to All Other Electrodes: 5 μuf
  - Grid No. 1 to All Other Electrodes: 6 μuf
  - External Conductive Coating to Anode: 1500 μuf Max., 750 μuf Min.
- **Ion Trap Magnet**: External, Single Field Type

**MECHANICAL DATA**

- **Minimum Useful Screen Dimensions (Maximum Assured)**: 14 5/16 x 11 1/8 Inches
- **Minimum Useful Screen Area**: 149 Sq. Inches
- **Bulb**: J133B or J133D
- **Bulb Contact, (Recessed Small Cavity Cap)**: J1-21
- **Base (Small Shell Duodecal 6-Pin)**: B6-63
- **Basing**: 12L
- **Weight (approx.)**: 18 Pounds

**RATINGS**

**MAXIMUM RATINGS (Absolute Maximum Values)**

- **Anode Voltage**: 17,600 Volts dc
- **Grid No. 4 (Focusing Electrode) Voltage**: -550 to +1100 Volts dc
- **Grid No. 2 Voltage**: 550 Volts dc
- **Grid No. 1 Voltage**: 155 Volts dc
- **Negative Bias Value**: 220 Volts
- **Positive Bias Value**: 0 Volts dc
- **Positive Peak Value**: 2 Volts

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MAXIMUM RATINGS (Absolute Maximum Values - Continued)

Peak Heater-Cathode Voltage:
Heater Negative with Respect to Cathode
  During Warm-up Period not to Exceed 15 seconds  450 Volts
  After Equipment Warm-up Period  200 Volts
Heater Positive with Respect to Cathode  200 Volts

TYPICAL OPERATING CONDITIONS

Anode Voltage  14,000 Volts dc
Grid No. 4 Voltage for Focus 3  -50 to +300 Volts dc
Grid No. 2 Voltage  300 Volts dc
Grid No. 1 Voltage Required for Cutoff 4  -35 to -72 Volts dc
Ion Trap Magnet Field Strength (approx.)  30 Gausses

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 its rated value 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 rated heater voltage divided by rated heater current.

2. External conductive coating must be grounded.

3. For best center focus, with grid No. 1 bias voltage and video signal voltage adjusted for 100 μa anode current on a 14 5/16 x 11 1/8" picture area.

4. Visual extinction of focused raster.
DIAGRAM NOTES:

1. Reference line is determined by the plane of the upper edge of the reference line gauge (JETEC No. 110) when the gauge is seated against the glass cone.

2. Nominal position of ion trap magnet.

3. Base Pin No. 6 aligns with horizontal centerline of tube within 30° and is on same side as anode contact, J1-21.

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.