Characteristics

General Data
- Focusing Method: Tri-Potential Electrostatic
- Deflection Method: Magnetic
- Deflection Angles (Approx.):
  - Horizontal: 105 Degrees
  - Diagonal: 110 Degrees
  - Vertical: 87 Degrees
- Phosphor: Aluminized P4
- Fluorescence: White
- Persistence: Short to Medium
- Faceplate: Gray Filter Glass
- Light Transmittance (Approx.): 77 Percent

Electrical Data
- Heater Voltage: 6.3 Volts
- Heater Current: 0.45 ± 5% Ampere
- Heater Warm-up Time¹: 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 Anode²: 1500 μF Max., 1000 μF Min.

Mechanical Data
- Minimum Useful Screen Dimensions (Maximum Assured):
  - Height: 11 11/16
  - Width: 14 3/4
  - Diagonal: 15 3/4
  - Area: 155 Sq. Inches
- Neck Length: 3 9/16 ± 1/8 Inches
- Overall Length: 10 11/16 ± 1/4 Inches
- Bulb: J132 1/2-A or J132 1/2-B
- Bulb Contact (Recessed Small Cavity Cap): J1-21
- Base: B7-208
- Basing: 8JR
- Weight (Approx.): 10 Pounds

Ratings

Maximum Ratings (Design Maximum Values) Grid Drive Service
- Anode Voltage: 17,600 Volts dc
- Grid No. 3 Voltage (Focusing Electrode): 700 Volts dc
- Grid No. 2 Voltage: 600 Volts dc
- Grid No. 1 Voltage:
  - Negative Bias Value: 154 Volts dc
  - Negative Peak Value: 220 Volts
  - Positive Bias Value: 0 Volts dc
  - Positive Peak Value: 2 Volts
- Peak Heater-Cathode Voltage:
  - Heater Negative with Respect to Cathode: 450 Volts
  - During Warm-up Period not to Exceed 15 Seconds
  - After Equipment Warm-up Period: 200 Volts
  - Heater Positive with Respect to Cathode: 200 Volts
TYPICAL OPERATING CONDITIONS (Grid Drive Service)

Anode Voltage  14,000 Volts  dc
Grid No. 3 Voltage for Focus  0 to +400 Volts  dc
Grid No. 2 Voltage\(^4\)  500 Volts  dc
Grid No. 1 Voltage Required for Cutoff\(^4\)  -43 to -78 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. Brightness and resolution improve with increase in Grid No. 2 voltage. A minimum value of 400 volts is recommended.

4. 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. 126 Reference Line Gauge, when the gauge is seated against the bulb.

2. Base Pin No. 4 aligns with horizontal centerline (A-A') within 30° and is on same side as anode contact, J1-21.