CHARACTERISTICS

GENERAL DATA
Focusing Method ........................................ Electrostatic
Deflection Method ........................................ Magnetic
Deflection Angles (Approx.)
  Horizontal ........................................... 100 Degrees
  Diagonal .................................................. 110 Degrees
  Vertical .................................................. 83 Degrees
Phosphor .................................................. Aluminized P4
Fluorescence ............................................ White
Persistence .............................................. Medium Short
Faceplate ................................................. Gray Filter Glass
Light Transmittance at Center (Approx.) ........... 40 Percent

ELECTRICAL DATA
Heater Voltage .......................................... 6.3 Volts
Heater Current .......................................... 0.3 ± 5 % Ampere
Heater Warm-up Time1 ................................. 14 Seconds
Direct Inter electrode Capacitances (Approx.)
  Cathode to All Other Electrodes .................... 5 pf
  Grid No. 1 to All Other Electrodes ................ 6 pf
  External Conductive Coating and Metal Frame to Anode2
    Max ...................................................... 2500 pf
    Min ...................................................... 2000 pf
Resistance Between External Conductive Coating and Metal Frame ................. 50 Megohms Min.

MECHANICAL DATA
Minimum Useful Screen Dimensions (Maximum Assured)
  Height .................................................. 167\% Inches
  Width ................................................... 20\% inches
  Diagonal .............................................. 24\% Inches
  Area .................................................... 327 Sq. Inches
Neck Length
  25DP4 .................................................. 4\% ± 1\% Inches
  25EP4 .................................................. 5\% ± 1\% Inches
Overall Length
  25DP4 .................................................. 15\% ± 1\% Inches
  25EP4 .................................................. 15\% ± 1\% Inches
Bulb ..................................................... C204 Exp. No. 1
Bulb Contact (Recessed Small Cavity Cap) .......... J1-21
Base ..................................................... B7-208
Basing ................................................... 8HR
Weight (Approx.) ........................................ 36 Pounds

RATINGS
MAXIMUM RATINGS (Design Maximum Values)
Grid Drive Service3
  Maximum Anode Voltage .............................. 22,000 Volts dc
  Minimum Anode Voltage .............................. 12,000 Volts dc
  Grid No. 4 (Focusing Electrode) Voltage .......... -550 to +1100 Volts dc
  Maximum Grid No. 2 Voltage ......................... 700 Volts dc
  Minimum Grid No. 2 Voltage ......................... 200 Volts dc
  Grid No. 1 Voltage
    Negative Bias Value .............................. 155 Volts dc
    Negative Peak Value ............................. 200 Volts dc
    Positive Bias Value .............................. 0 Volt dc
    Positive Peak Value .............................. 2 Volts dc
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 ................. 500 Volts
  Heater Positive with Respect to Cathode ........... 200 Volts dc
  DC Component ........................................ 100 Volts dc

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Electronic Components Group
ELECTRONIC TUBE DIVISION
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File Under
TELEVISION PICTURE TUBES
TYPICAL OPERATING CONDITIONS

Grid Drive Service
Anode Voltage .................................................. 16,000 Volts dc
Grid No. 4 Voltage for Focus .......................... 0 Volt dc
Grid No. 2 Voltage ............................................. 300 Volts dc
Grid No. 1 Voltage Required for cutoff .................. −35 to −72 Volts dc

Cathode Drive Service
Anode Voltage .................................................. 16,000 Volts dc
Grid No. 4 Voltage for Focus .......................... 0 Volt dc
Grid No. 2 Voltage ............................................. 300 Volts dc
Cathode Voltage Required for Cutoff .................... +32 to +60 Volts dc

CIRCUIT VALUES

Grid No. 1 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 and rim band must be grounded.

3. Voltages are positive with respect to cathode unless otherwise indicated.

4. Voltages are positive with respect to Grid No. 1 unless otherwise indicated.

5. Visual extinction of focused raster. Extinction of stationary focused spot will require that the absolute value of the bias between cathode and grid No. 1 be increased by about 5 volts.

6. Tubes will have satisfactory focus at some value between −200 and +200 volts.

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 of 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.