CHARACTERISTICS

GENERAL DATA
Focusing Method ................................... Magnetic
Deflecting Method ................................ Magnetic
Deflection Angles (approx.)
  Horizontal .................................. 85 Degrees
  Diagonal .................................... 90 Degrees
Phosphor ........................................ Aluminized P4
Fluorescence .................................. White
Persistence ..................................... Short to Medium
Faceplate ........................................ Gray Filter Glass
Light Transmittance (approx.) .................... 75 Percent

ELECTRICAL DATA
Heater Voltage ..................................... 6.3 Volts
Heater Current ................................... 0.6 ±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 ......... 2500 μf Max.
  ............................................... 2000 μf Min.
Ion Trap Magnet .................................. External, Single Field Type

MECHANICAL DATA
Minimum Useful Screen Dimensions
  (Maximum Assured) ................................ 21 7/8 x 16 7/8 Inches
Minimum Useful Screen Area ...................... 352 Sq. Inches
Bulb Contact (Recessed Small Cavity Cap) .... J1-21
Base (Small Shell Duodecal 5-Pin) ............. B5-57
Basing ........................................... 12N

RATINGS
MAXIMUM RATINGS (Absolute Maximum Values)
Anode Voltage .................................... 24,200 Volts dc
Grid No. 2 Voltage ................................ 660 Volts dc
Grid No. 1 Voltage
  Negative Bias Value ................................ 155 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
    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 .................................... 18,000 Volts dc
Grid No. 2 Voltage ................................ 300 Volts dc
Grid No. 1 Voltage Required for Cutoff3 ........... −28 to −72 Volts dc
Focusing Coil Current4 ........................... 125 ±15% Ma dc
Ion Trap Magnet Current (Average)5 ............... 32 Ma dc
Field Strength of PM Ion Trap Magnet6 .......... 36 Gausses Min.

CIRCUIT VALUES
Grid No. 1 Circuit Resistance ..................... 1.5 Megohms Max.

NOTES: (Continued on Page 2)
1. Heater warm-up time is the time required for the voltage across the heater terminals to increase to 5.0 volts in the JETEC test circuit, with E = 25 volts and series R = 31.5 ohms.
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.
4. For JETEC focusing coil 109 or equivalent three inches from reference line, bias adjusted to 30 foot lamberts on a 21 7/16 x 16 7/8 inch picture area sharply focused at center of screen.
5. For JETEC Ion Trap Magnet No. 117 with pole pieces centered over Grid No. 2 on mount, and rotated for maximum brightness.
6. For typical PM ion trap magnet with field strength tolerance of ±3 gausses.

**DIAGRAM NOTES:**

1. Reference line is determined by the plane C-C' of the reference line gauge (JETEC No. 116) when the gauge is resting on the glass cone.
2. Contact area for external conductive coating, 2" x 2", located 90 degrees counterclockwise from anode contact as viewed from base end of tube.
3. Anode contact aligns with vacant pin position No. 6 ±30 degrees.

**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.