

QUICK REFERENCE DATA

114° MAGNETIC DEFLECTION
12" × 15.125" MIN. SCREEN SIZE
4.375" NECK LENGTH

FILLED-RIM IMPLOSION PROTECTION

6.3 VOLT, 450 MA HEATER
G2 VOLTAGE (50 VOLTS)
SPHERICAL GRAY FILTER GLASS

DETAILED DATA

ELECTRICAL

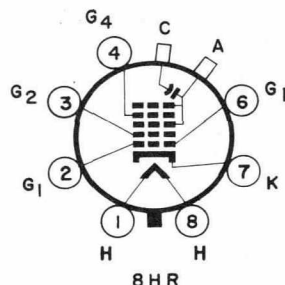
Focusing Method Low Voltage Electrostatic
Deflection Method Magnetic
Deflection Angles (Approx.):
Diagonal 114 Degrees
Horizontal 102 Degrees
Vertical 86 Degrees
Direct Interelectrode Capacitances:
Cathode to All Other Electrodes (Approx.) 5 pF
Grid No. 1 to All Other Electrodes (Approx.) 6 pF
External Conductive Coating to Anode: (Note 5)
Minimum 1250 pF
Maximum 1750 pF
Resistance Between External Conductive Coating and
Implosion Protection Hardware (minimum) 5 Megohms
Heater Current at 6.3 Volts 450 ± 5% mA
Heater Warm-up Time (Note 1) 11 Seconds

OPTICAL

Phosphor Number Aluminized P4
Light Transmittance at Center (Approx.) 49%

MECHANICAL

Over-all Length 11.625" ± 0.250"
Neck Length 4.375" ± 0.125"
Greatest Dimensions of Tube:
Diagonal 20.875" ± 0.094"
Width 17.125" ± 0.063"
Height 14.078" ± 0.063"
Minimum Useful Screen Dimensions (Projected):
Diagonal 17.562"
Horizontal Axis 15.125"
Vertical Axis 12.000"
Area 172 Sq. Inches
Implosion Protection Filled Rim
Bulb Contact EIA J1-21
Bulb EIA J149F1
Base EIA B7-208
Basing EIA 8HR
Net Weight 16.250 Pounds



RATINGS

Design Maximum System
Unless Otherwise Specified, Voltage Values are Positive
and Measured with Respect to Grid 1.
Maximum Anode Voltage (Note 2) 21000 Volts
Minimum Anode Voltage 12000 Volts
Maximum Grid 4 (Focusing Electrode)
Voltage +1100, -550 Volts
Maximum Grid 2 Voltage 60 Volts
Minimum Grid 2 Voltage 20 Volts
Cathode Voltage:
Maximum Negative Bias Value 0 Volts
Maximum Negative Peak Value 2 Volts
Maximum Positive Bias Value 154 Volts
Maximum Positive Peak Value 220 Volts
Maximum 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 300 Volts
Heater Positive with Respect to Cathode 200 Volts

LIMITING CIRCUIT VALUES

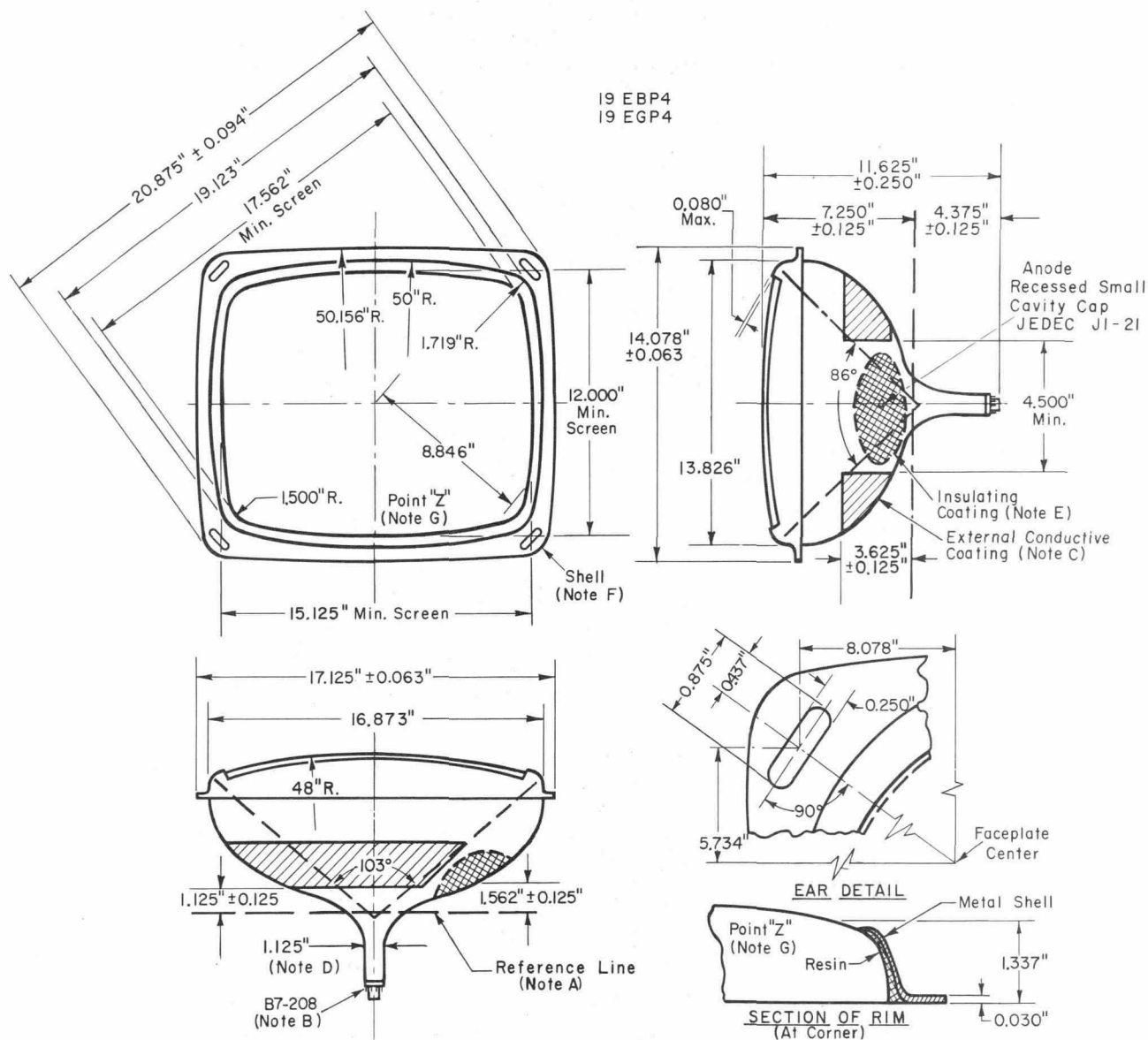
Maximum Grid 1 Circuit Resistance 1.5 Megohms
Minimum Grids 2 & 4 Circuit Resistance (Note 3) . . 10000 Ohms

TYPICAL CATHODE DRIVE OPERATION

Unless Otherwise Specified, all Voltage Values
are Positive with Respect to Grid 1.
Anode Voltage (Note 2) 16000 Volts
Grid 4 Voltage (Focusing Electrode) (Note 4) . . . 0 to 400 Volts
Grid 2 Voltage 50 Volts
Cathode Voltage for Raster Cutoff 35 to 55 Volts

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 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times rated heater voltage divided by rated heater current.
2. Operation with voltage in excess of 16KV may require shielding to limit radiation of very soft X-rays.
3. Protective resistance in the grids 2 & 4 circuits is advisable to prevent arc damage.
4. With the cathode bias voltage and video-signal voltage adjusted to give an anode current of 150 microamperes on a 12" by 15.125" pattern from type 2F21 monoscope or equivalent. Individual tubes will have satisfactory focus at some value between 0 and 400 volts.
5. Includes implosion-protection hardware.



CE-C2355

- A. Yoke Reference Line is determined by plane surface of flared end of JEDEC Reference Line Gauge No. 126 when seated on funnel of tube. With a minimum neck length tube, the PM centering magnet (0 to 8 gauss) should extend no more than 2.125" from Yoke Reference Line.
- B. Lateral strains on base pins must be avoided. The socket should have flexible leads permitting movement. The perimeter of the base wafer will be inside a 1.750" diameter circle concentric with tube axis. Base pin 4 aligns with major axis with in 30° and is on same side as anode terminal.
- C. External conductive coating forms supplementary filter capacitance and must be grounded.
- D. Neck diameter may be a maximum of 1.168" at the splice.
- E. Transparent insulating coating 3" in diameter. Clean only with soft, dry, lintless cloth.
- F. Shell must be grounded.
- G. Point "Z" is located on the tube diagonal at the faceplate surface.

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