



CHARACTERISTICS

GENERAL DATA

Focusing Method . . . . .	Electrostatic
Deflection 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.) . . . . .	70 Percent

ELECTRICAL DATA

Heater Voltage . . . . .	6.3 Volts
Heater Current . . . . .	0.6 ± 5% Ampere
Heater Warm-up Time <sup>1</sup> . . . . .	11 Seconds
Direct Interelectrode Capacitances (approx.) . . . . .	
Cathode to All Other Electrodes . . . . .	5 μmf
Grid No. 1 to All Other Electrodes . . . . .	6 μmf
External Conductive Coating to Anode <sup>2</sup> . . . . .	2500 μmf
	2000 μmf
	Max.
	Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions (Max. assured)	
Width . . . . .	21 <sup>7</sup> / <sub>16</sub> Inches
Height . . . . .	16 <sup>7</sup> / <sub>8</sub> Inches
Diagonal . . . . .	22 <sup>13</sup> / <sub>16</sub> Inches
Minimum Useful Screen Area . . . . .	332 Sq. Inches
Bulb Contact (Recessed Small Cavity Cap) . . . . .	J1-21
Base . . . . .	B6-63
Basing . . . . .	12L

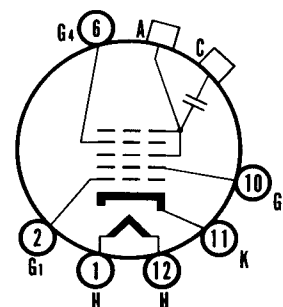
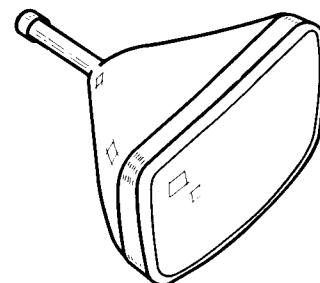
RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage . . . . .	22,000 Volts	dc
Grid No. 4 Voltage . . . . .		
(Focusing Electrode) . . . . .	-550 to +1100 Volts	dc
Grid No. 2 Voltage . . . . .	550 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	

QUICK REFERENCE DATA

- Television Picture Tube
- 24" Direct Viewed
- Rectangular Glass Type
- Spherical Faceplate
- Gray Filter Glass
- Aluminized Screen
- Electrostatic Focus
- 90° Magnetic Deflection
- Short Neck Tube
- No Ion Trap
- External Conductive Coating



12-L

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## TYPICAL OPERATING CONDITIONS

Anode Voltage . . . . .	18,000 Volts	dc
Grid No. 4 Voltage for Focus . . . . .	-50 to +350 Volts	dc
Grid No. 2 Voltage . . . . .	300 Volts	dc
Grid No. 1 Voltage Required for Cutoff <sup>3</sup> . . . . .	-35 to -72 Volts	dc

## CIRCUIT VALUES

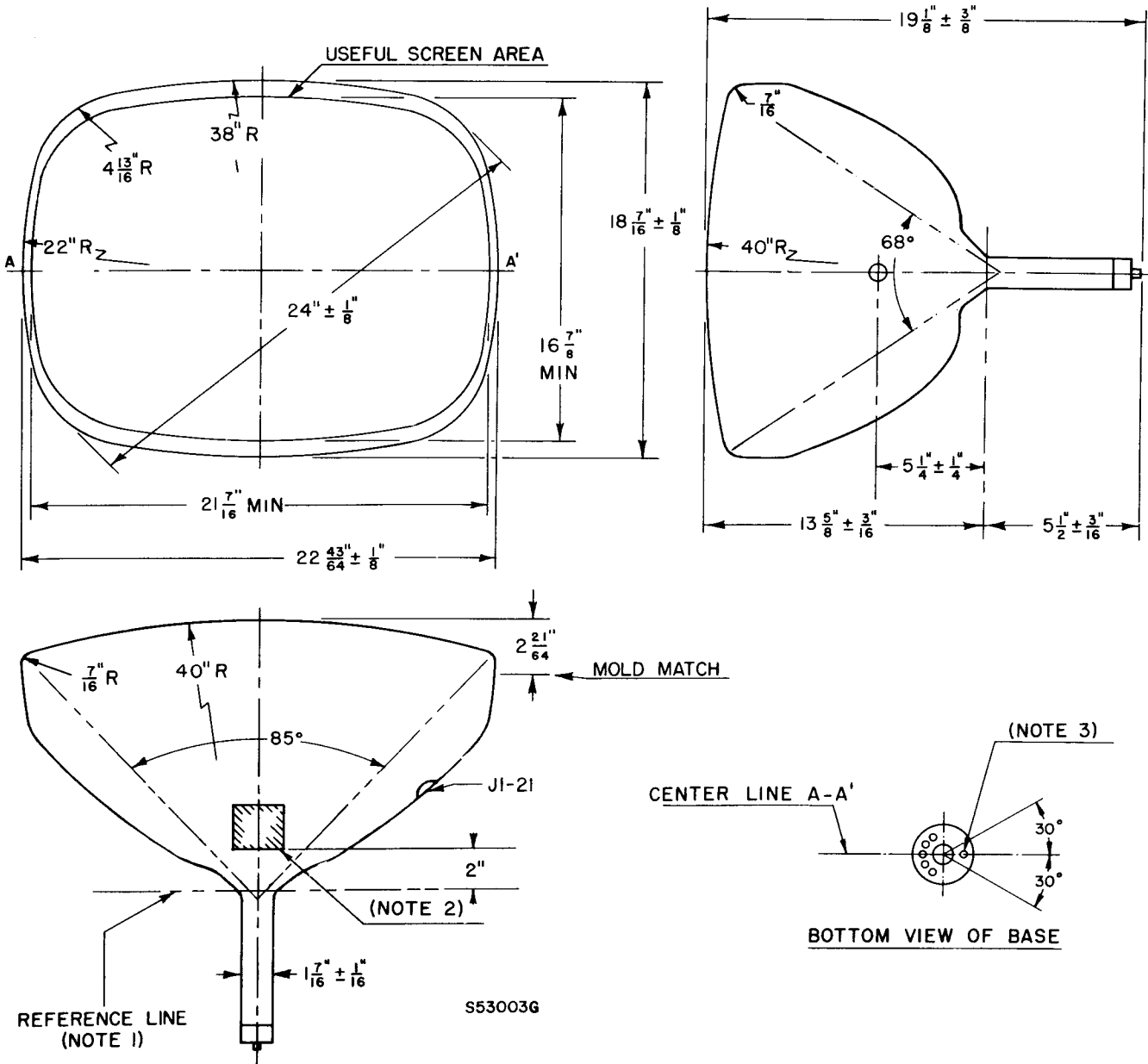
Grid No. 1 Circuit Resistance . . . . .	1.5 Megohms Max.
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## NOTES:

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.

## 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.*



**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. The neck diameter near the cone may exceed 1.500" but is limited by the internal contour of the yoke reference line gauge.
2. Useful screen area.
3. Anode contact aligns with pin No. 6 ± 30 degrees.