CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (Approx.)	
Horizontal	80 Degrees
Diagonal	92 Degrees
Vertical	65 Degrees
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Short to Medium
Faceplate	Gray Filter Glass
Light Transmittance (Approx.)	78 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts	
Heater Current	0.6 ± 5 % Ampere	
Heater Warm-up Time[1]	11 Seconds	
Direct Interelectrode Capacitances (Approx.)		
Cathode to All Other Electrodes	5 μμf	
Grid No. 1 to All Other Electrodes	6 μμf	
External Conductive Coating to Anode[2]	2500 μμf	Max.
	1700 μμf	Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	19¼ x 15⅛ Inches
Minimum Useful Screen Area	282 Sq. Inches
Neck Length	4½ ± 3/16 Inches
Overall Length	17 ± ⅜ Inches
Bulb	J187C or J187F
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base	B6-203
Basing	12L
Weight	27 Lbs.

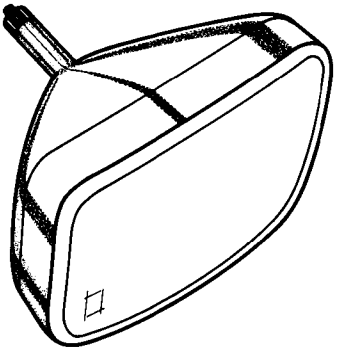
RATINGS

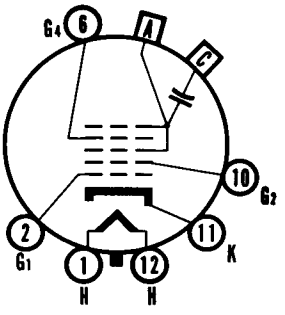
MAXIMUM RATINGS (Design Maximum Values)

Grid Drive Service		
Maximum Anode Voltage	22,000 Volts	dc
Minimum Anode Voltage	11,000 Volts	dc
Grid No. 4 Voltage (Focusing Electrode)	−550 to +1100 Volts	dc
Maximum Grid No. 2 Voltage	550 Volts	dc
Minimum Grid No. 2 Voltage	200 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		
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
23" Direct Viewed
Rectangular Glass Type
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
Electrostatic Focus
92° Magnetic Deflection
1 7/16" Neck Diameter
No Ion Trap
External Conductive Coating
Short Neck





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SYLVANIA
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MAXIMUM RATINGS (DESIGN MAXIMUM VALUES) Continued

Cathode Drive Service		
Maximum Anode Voltage	22,000 Volts	dc
Minimum Anode Voltage	11,000 Volts	dc
Grid No. 4 Voltage (Focusing Electrode)	−400 to +1250 Volts	dc
Maximum Grid No. 2 Voltage	700 Volts	dc
Minimum Grid No. 2 Voltage	350 Volts	dc
Cathode Voltage		
Positive Bias Value	154 Volts	dc
Positive Peak Value	220 Volts	
Negative Bias Value	0 Volts	dc
Negative 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

Grid Drive Service		
Anode Voltage	18,000 Volts	dc
Grid No. 4 Voltage for Focus	0 to 400 Volts	dc
Grid No. 2 Voltage	400 Volts	dc
Grid No. 1 Voltage Required for Cutoff[3]	−48 to −96 Volts	dc
Cathode Drive Service		
Anode Voltage	18,000 Volts	dc
Grid No. 4 Voltage for Focus	0 to 400 Volts	dc
Grid No. 2 Voltage	400 Volts	dc
Grid No. 1 Voltage	0 Volts	dc
Cathode Voltage	+46 to +80 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 its rated value 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 rated heater voltage divided by rated heater current.*
2. *External conductive coating must be grounded.*
3. *Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be increased by about 5 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 or 16,000 volts, whichever is less.

OUTLINE

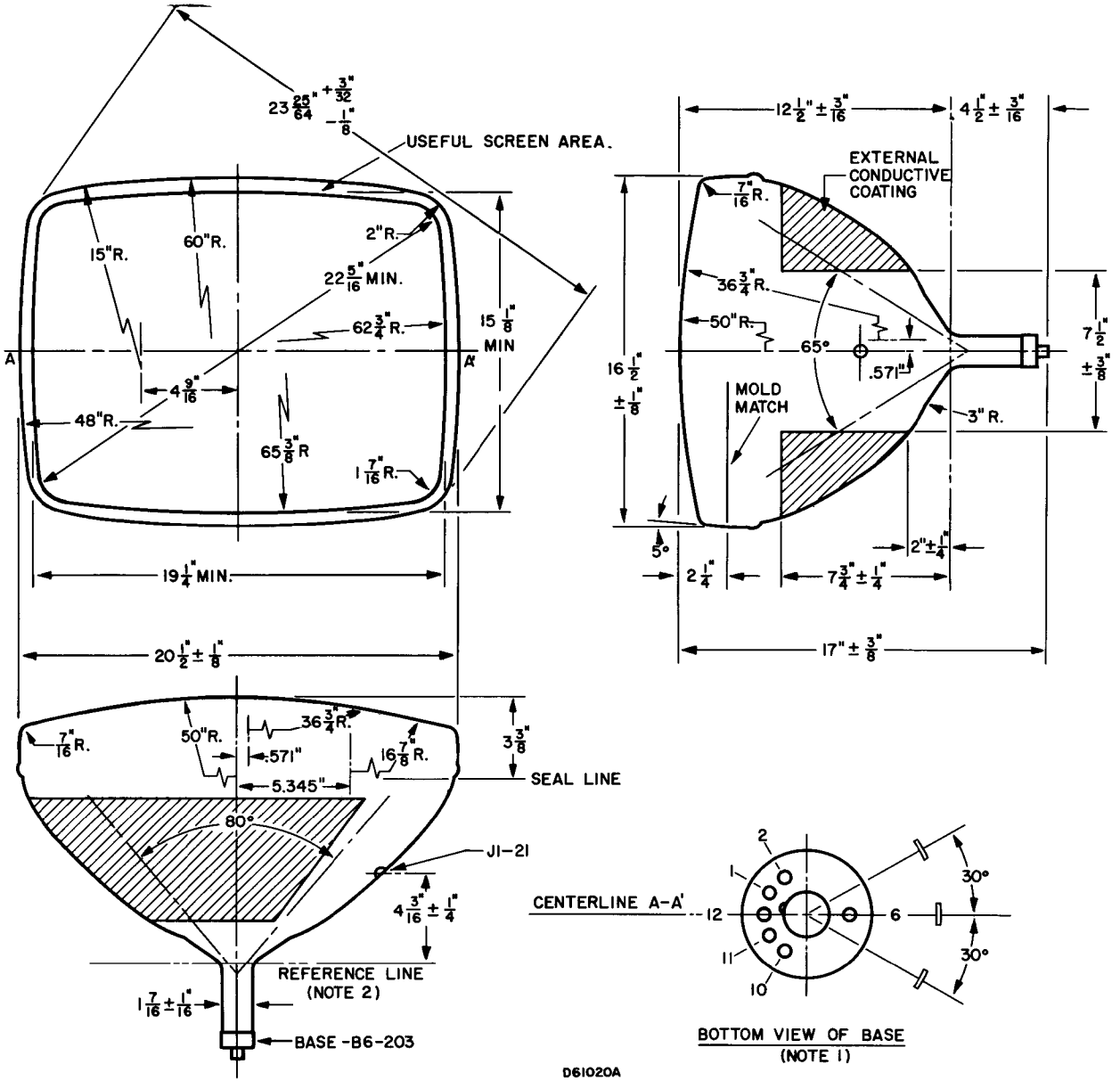

DIAGRAM NOTES:

1. *The plane through the tube axis and Pin No. 6 may vary from the plane through the tube axis and anode terminal by angular tolerance (measured about the tube axis) of ±30°. Anode terminal is on the same side as Pin No. 6.*
2. *With tube neck inserted through the flared end of the reference line gauge JEDEC No. G-116 and with the tube seated in gauge, the reference line is determined by the intersection of the Plane CC' of the gauge with the glass funnel.*