

CHARACTERISTICS

GENERAL DATA

Focusing Method	Tri-Potential Electrostatic
Deflection Method	Magnetic
Deflection Angles (Approx.)	
Horizontal	105 Degrees
Diagonal	110 Degrees
Vertical	87 Degrees
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Short to Medium
Faceplate	Gray Filter Glass
Light Transmittance (Approx.)	76 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	$0.60 \pm 5\%$ Ampere
Heater Warm-up Time ¹	11 Seconds
Direct Interelectrode Capacitances (Approx.)	
Cathode to All Other Electrodes	5 $\mu\mu\text{f}$
Grid No. 1 to All Other Electrodes	6 $\mu\mu\text{f}$
External Conductive Coating to Anode ²	2500 $\mu\mu\text{f}$ Max. 2000 $\mu\mu\text{f}$ Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	
Height	15 $\frac{1}{16}$ Inches
Width	19 $\frac{1}{16}$ Inches
Diagonal	20 $\frac{1}{4}$ Inches
Area	262 Sq. Inches
Neck Length	3 $\frac{9}{16} \pm \frac{1}{8}$ Inches
Overall Length	12 $\frac{13}{16} \pm \frac{5}{16}$ Inches
Bulb	J171G or J171K
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base	B7-208
Basing	8JR
Weight (Approx.)	20 Pounds

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values) Grid Drive Service

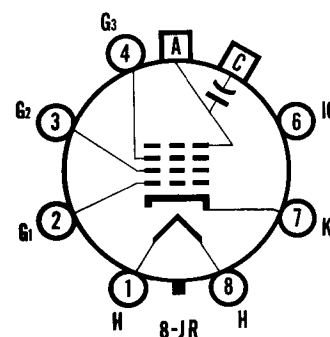
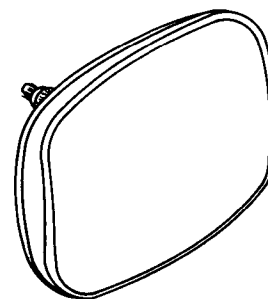
Anode Voltage	22,000 Volts	dc
Grid No. 3 Voltage (Focusing Electrode)	700 Volts	dc
Grid No. 2 Voltage	600 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value	154 Volts	dc
Negative Peak Value	220 Volts	
Positive Bias Value	0 Volts	dc
Positive Peak Value	2 Volts	

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
21" Direct Viewed
Rectangular Glass Type
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
Tri-Potential Electrostatic Focus
110° Magnetic Deflection
No Ion Trap
External Conductive Coating
Short Neck
Lightweight Tube



SYLVANIA ELECTRONIC TUBES

A Division of
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PAGE 1 OF 2

File Under
TELEVISION PICTURE TUBES

TYPICAL OPERATING CONDITIONS (Grid Drive Service)

Anode Voltage	16,000 Volts	dc
Grid No. 3 Voltage for Focus	0 to +400 Volts	dc
Grid No. 2 Voltage ³	500 Volts	dc
Grid No. 1 Voltage Required for Cutoff ⁴	-43 to -78 Volts	dc

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
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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 must be grounded.
3. Brightness and resolution improve with increase in Grid No. 2 voltage. A minimum value of 400 volts is recommended.
4. 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.

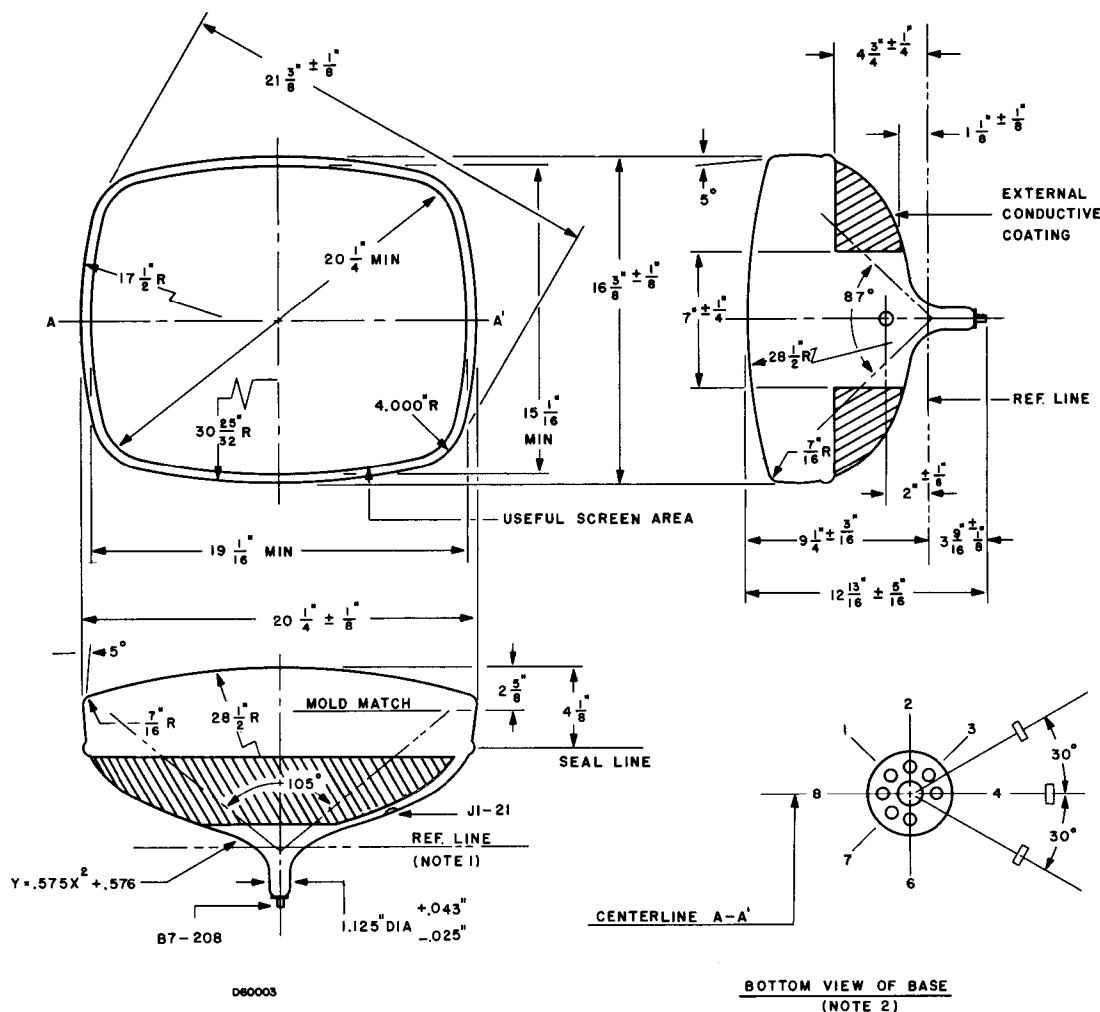


DIAGRAM NOTES:

1. Reference line is determined by 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.