

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (Approx.)	
Horizontal	101 Degrees
Diagonal	114 Degrees
Vertical	86 Degrees
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Medium Short
Faceplate	Gray Filter Glass
Light Transmittance (Approx.)	78 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 pf	
Grid No. 1 to All Other Electrodes	6 pf	
External Conductive Coating to Anode ²	1900 pf	Max.
	1400 pf	Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	
Height	12 Inches
Width	$15\frac{1}{8}$ Inches
Diagonal	$17\frac{9}{16}$ Inches
Area	172 Sq. Inches
Neck Length	$4\frac{3}{8} \pm \frac{1}{8}$ Inches
Overall Length	$11\frac{5}{8} \pm \frac{1}{4}$ Inches
Bulb	J149A
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base	B6-214
Basing	7FA
Weight (Approx.)	14 Pounds

RATINGS

MAXIMUM RATINGS (Design Maximum Values)

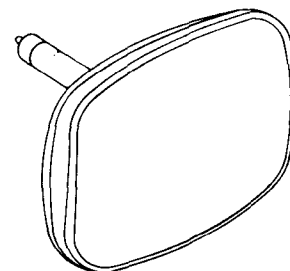
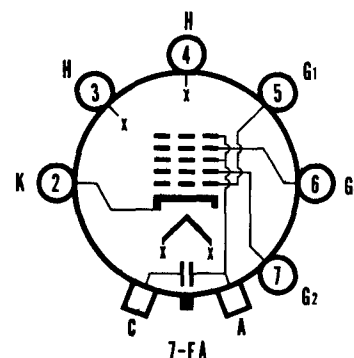
Cathode Drive Service ³		
Maximum Anode Voltage	20,000 Volts	dc
Minimum Anode Voltage	12,000 Volts	dc
Grid No. 4 Voltage (Focusing Electrode)	-500 to +1100 Volts	dc
Grid No. 2 Voltage	55 Volts	dc
Cathode Voltage		
Negative Bias Value	0 Volt	dc
Negative Peak Value	2 Volts	
Positive Bias Value	100 Volts	dc
Positive Peak Value	140 Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode During Warm-up Period Not to Exceed 15 Seconds	410 Volts	
After Equipment Warm-up Period	180 Volts	
Heater Positive with Respect to Cathode	180 Volts	

TYPICAL OPERATING CONDITIONS

Cathode Drive Service ³		
Anode Voltage	16,000 Volts	dc
Grid No. 4 Voltage for Focus	0 to +400 Volts	dc
Grid No. 2 Voltage ³	45 Volts	dc
Cathode Voltage Required for Cutoff ⁴	35 to 50 Volts	dc

QUICK REFERENCE DATA

Television Picture Tube
19" Direct Viewed
Rectangular Glass Type
Gray Filter Glass
Aluminized Screen
Neck Length $4\frac{3}{8}$ "
Electrostatic Focus
114° Magnetic Deflection
No Ion Trap
External Conductive Coating
6.3 Volts, 600 ma Heater
Low Grid No. 2 Voltage



SYLVANIA ELECTRONIC TUBES

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PICTURE TUBE OPERATIONS

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TELEVISION PICTURE TUBES

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 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. Voltages are positive with respect to Grid No. 1 unless indicated otherwise.
4. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more positive.

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

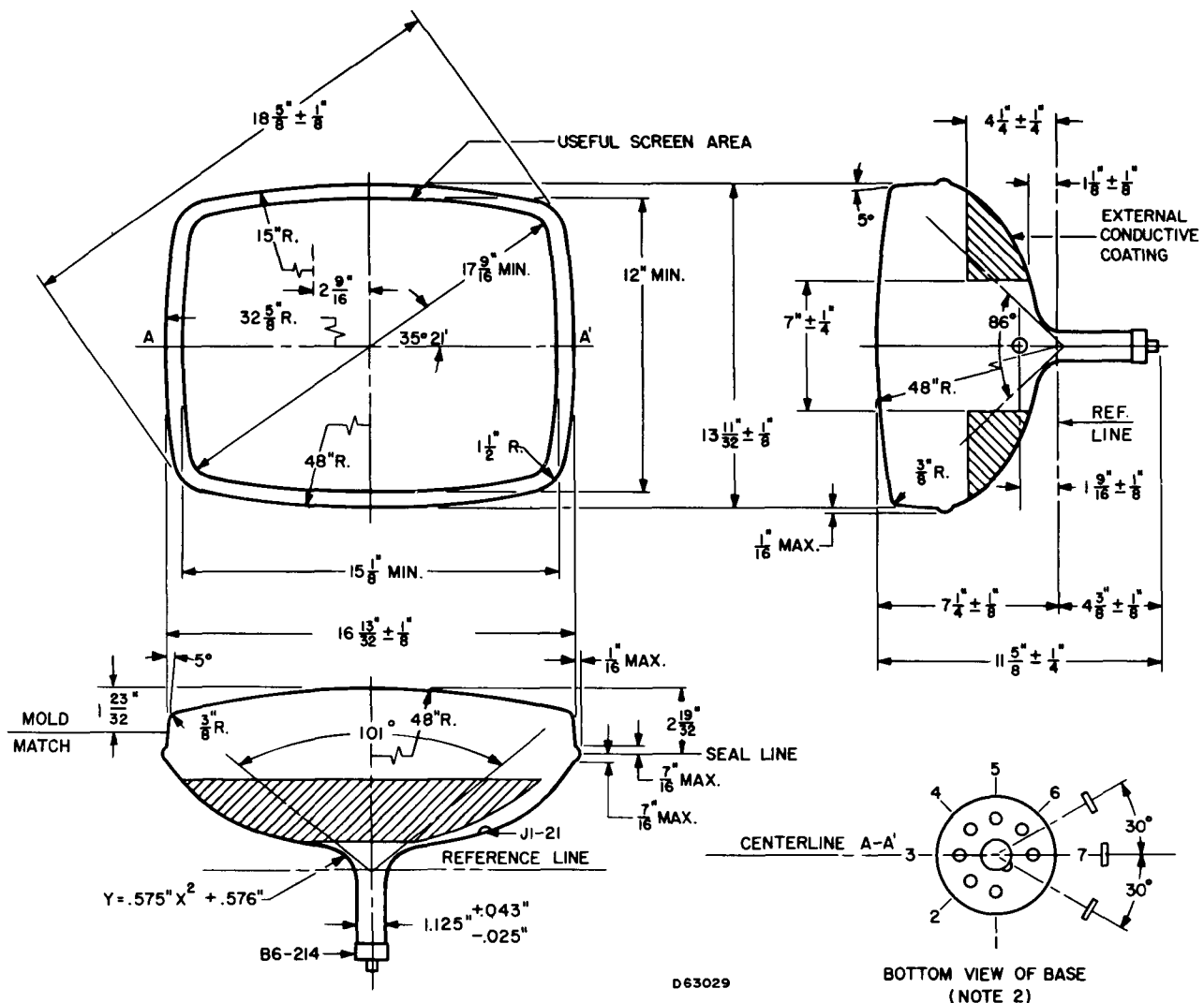


DIAGRAM NOTES:

1. Reference line is determined by plane C-C' JEDEC No. 126 Reference Gauge when the gauge is seated against the bulb.
2. Base Pin No. 7 aligns with anode contact (J1-21) within 30°.