



engineering data service

ADVANCE DATA CHARACTERISTICS

GENERAL DATA

Focusing Method	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.)	75	Percent	

ELECTRICAL DATA

Heater Voltage	6.3	Volts	
Heater Current	0.450 ±5%	Ampere	
Heater Warm-up Time ¹	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 ²	2500	µmf	Max.
	2000	µmf	Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	19 1/16 x 15 1/16	Inches	
Minimum Useful Screen Area	262	Sq. Inches	
Bulb Contact (Recessed Small Cavity Cap)	J1-21		
Bulb	J171-C1 or equivalent		
Base	B6-185		
Basing	7FA		
Weight (approx.)	20	Pounds	

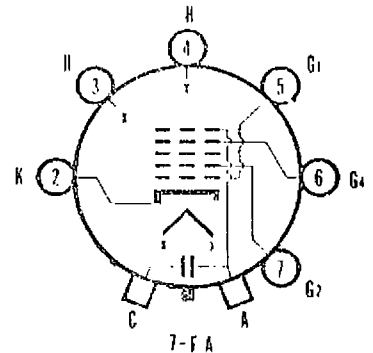
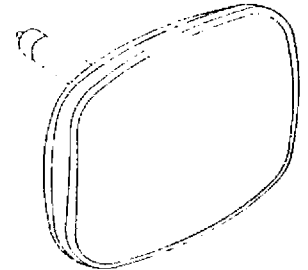
RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage	19,800	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	154	Volts	dc
Negative Peak Value	220	Volts	
Positive Bias Value	0	Volts	dc
Positive Peak Value	2	Volts	

QUICK REFERENCE DATA

Television Picture Tube
 21" Direct Viewed
 Rectangular Glass Type
 Lightweight Tube
 Spherical Faceplate
 Gray Filter Glass
 Aluminized Screen
 Electrostatic Focus
 110° Magnetic Deflection
 1 1/8" Neck Diameter
 No Ion Trap
 External Conductive Coating
 6.3 Volt, 450 Ma Heater



SYLVANIA ELECTRIC
 PRODUCTS INC.

TELEVISION PICTURE TUBE
 DIVISION

SENECA FALLS, NEW YORK

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MAXIMUM RATINGS (Absolute Maximum Values) (Cont'd.)

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

Anode Voltage	14,000 Volts	dc
Grid No. 4 Voltage for Focus	0 to 400 Volts	dc
Grid No. 2 Voltage	300 Volts	dc
Grid No. 1 Voltage Required for Cutoff ³	-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 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 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.

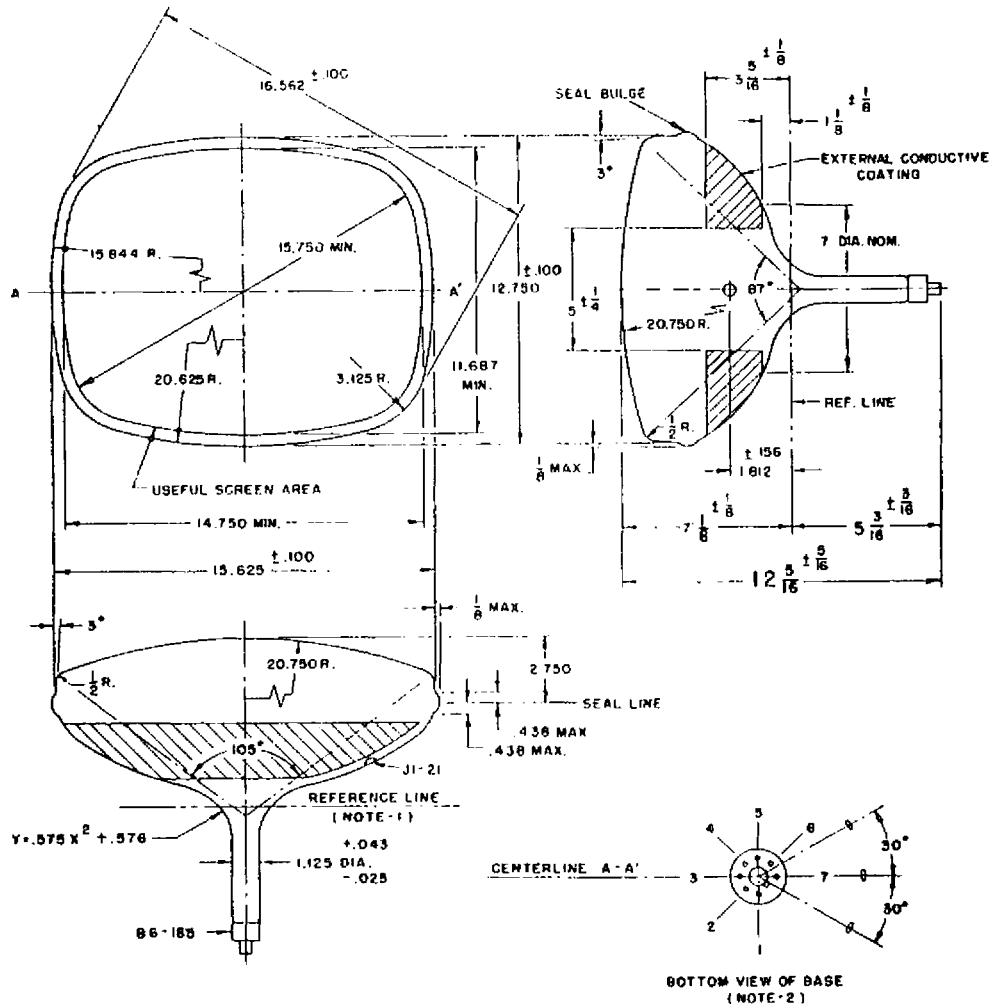


DIAGRAM NOTES:

1. Reference line is determined by plane C-C' of JETEC No. 126 Reference Line Gauge when the gauge is seated against the bulb.
2. Base pin No. 7 aligns with anode contact (J1-21) within 30°.
3. Dimensions are in inches.