

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	Short to Medium
Faceplate	Gray Filter Glass
Light Transmittance (Approx.)	79 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	0.45+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	1900 μmf Max.
	1400 μmf Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	
Height	12 Inches
Diagonal	17 9/16 Inches
Width	15 1/8 Inches
Minimum Useful Screen Area	172 Sq. Inches
Neck Length	4 1/8 $\pm$ 1/8 Inches
Bulb	J149A
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base	B6-214
Basing	7FA
Weight (Approx.)	13 1/2 Pounds
Overall Length	11 3/8 $\pm$ 1/4 Inches

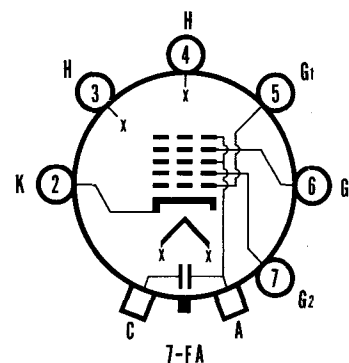
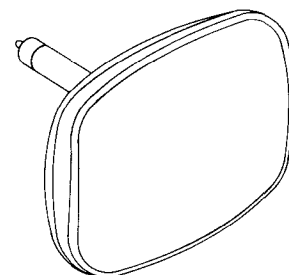
RATINGS

MAXIMUM RATINGS (Design Maximum Values)³

Anode Voltage		
Maximum	19,800 Volts	dc
Minimum	12,000 Volts	dc
Grid No. 4 Voltage (Focusing Electrode) ⁴	-550 to +1100 Volts	dc
Grid No. 2 Voltage		
Maximum	70 Volts	dc
Minimum	40 Volts	dc
Cathode Voltage		
Positive Bias Value	100 Volts	dc
Negative Peak Value	0 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	

QUICK REFERENCE DATA

Television Picture Tube
19" Direct Viewed
Rectangular Glass Type
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
Electrostatic Focus
114° Magnetic Deflection
1 1/8" Neck Diameter
No Ion Trap
External Conductive Coating
Low Grid No. 2 Voltage
Cathode Drive Design
6.3 Volt, 450 ma heater



SYLVANIA ELECTRONIC TUBES

A Division of
Sylvania Electric Products Inc.

PICTURE TUBE OPERATIONS SENECA FALLS, NEW YORK

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

JUNE, 1961

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File Under

TELEVISION PICTURE TUBES

TYPICAL OPERATING CONDITIONS³

Anode Voltage	14,500 Volts	dc
Grid No. 4 Voltage for Focus	0 to +500 Volts	dc
Grid No. 2 Voltage	50 Volts	dc
Cathode Voltage Required for Cutoff ⁵	35 to 50 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. *This type is designed for cathode-drive service. All voltages shown are positive with respect to Grid No. 1 Voltage, unless otherwise indicated.*
4. *The focus electrode may be modulated to improve overall focus.*
5. *Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be increased approximately 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.

D60031A



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°.