

CHARACTERISTICS

GENERAL DATA

Focusing Method	Magnetic
Deflection Method	Magnetic
Deflection Angle (Approx.)	53 Degrees
Types*	7UP7
	7UP7A
	7UP25
Fluorescence	Blue-White
Phosphorescence	Orange
Persistence	Long
Faceplate	Clear, Spherical
Screen	Aluminized

*In addition to the types shown, the 7UP- and 7UP-A can be supplied with several other screen phosphors.

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	0.6 ± 10 % Ampere
Direct Interelectrode Capacitances (Approx.)	
Cathode to All Other Electrodes	5 μf
Grid No. 1 to All Other Electrodes	8.5 μf

MECHANICAL DATA

Minimum Useful Screen Diameter	6 Inches
Bulb	J56R
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base (Long Medium-Shell Octal)	B8-65
Basing	5AN
Anode Contact Aligns with Pin No. 5	±10 Degrees
Weight	2 3/4 Pounds

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage ¹	13,200 Volts	dc
Grid No. 2 Voltage	770 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value	200 Volts	dc
Positive Bias Value	0 Volts	dc
Positive Peak Value	2 Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode	200 Volts	
Heater Positive with Respect to Cathode	200 Volts	

TYPICAL OPERATING CONDITIONS

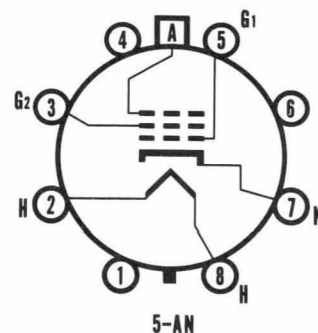
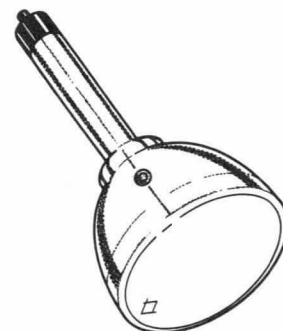
Anode Voltage ²	7000 Volts	dc
Grid No. 2 Voltage	250 Volts	dc
Grid No. 1 Voltage Required for Cutoff ³	-25 to -70 Volts	dc
Focusing Coil Current (Approx.) ⁴	115 Ma	dc
Line Width ⁵		
7UP7, at Ia = 200 μa	0.50 mm	
7UP7A, at Ia = 200 μa	0.28 mm	
7UP25, at Ia = 35 μa	0.20 mm	
Spot Position ⁶	12 mm	

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
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QUICK REFERENCE DATA

7" Direct Viewed
Round Glass Type
Spherical Faceplate
Aluminized Screen
Magnetic Deflection
Magnetic Focus
No Ion Trap
7UP-A and 7UP25 have high resolution gun.



SYLVANIA ELECTRONIC TUBES

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PICTURE TUBE OPERATIONS

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PAGE 1 OF 2

File Under
SPECIAL AND GENERAL
PURPOSE CATHODE RAY TUBES

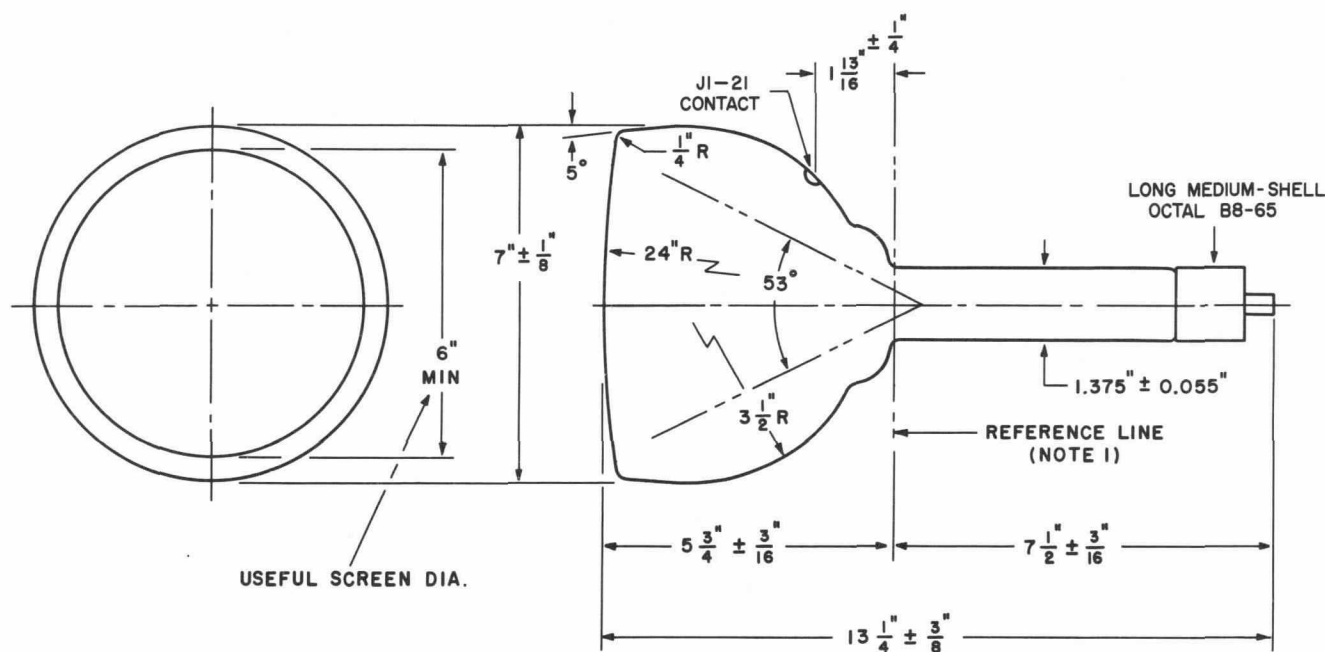
NOTES:

1. The screen of the 7UP25 may be damaged if the exciting current density exceeds $1.4 \mu\text{a}$ per square cm.
2. Brilliance and definition decrease with decreasing anode voltage. In general, anode voltage should not be less than 5,000 volts.
3. Visual extinction of undeflected focused spot.
4. For JEDEC focusing coil No. 106 with distance from the yoke reference line to center of air gap equal to $2 \frac{3}{4}$ inches.
5. Measured in accordance with MIL-E-1.
6. The center of the undeflected, unfocused spot will fall within a circle having 12 mm radius concentric with the tube face.

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



D59020A

DIAGRAM NOTE:

1. Reference line is determined by the point where a gauge $1.430'' + .003''$ I.D. and $2''$ long will stop against the bulb.
-.000''