

## CHARACTERISTICS

### GENERAL DATA

Focusing Method . . . . .		Magnetic
Deflecting Method . . . . .		Magnetic
Deflection Angle (Approx.) . . . . .		50 Degrees
	<b>10KP7</b>	
<b>Types*</b>	<b>10KP7A</b>	<b>10KP7B</b>
Fluorescence . . . . .	Blue-White	Blue-White
Phosphorescence . . . . .	Yellow	Yellow
Persistence . . . . .	Long	Long
Screen . . . . .	—	Aluminized
Faceplate . . . . .	Gray Filter Glass	Gray Filter Glass
Light Transmittance (approx.) . . . . .	77	77

\*In addition to the types shown, the 10KP- 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 μmf
Grid No. 1 to All Other Electrodes . . . . .	8 μmf

### MECHANICAL DATA

Minimum Useful Screen Diameter . . . . .	9 Inches
Bulb Contact (Recessed Small Cavity Cap) . . . . .	J1-21
Bulb . . . . .	J84C or J84D
Base (Small-Shell Duodecal 5-Pin) . . . . .	B5-57
Basing . . . . .	12D
Bulb Contact Aligns with Vacant Pin	
Position No. 3 . . . . .	±10 Degrees
Weight (approx.) . . . . .	9 Pounds

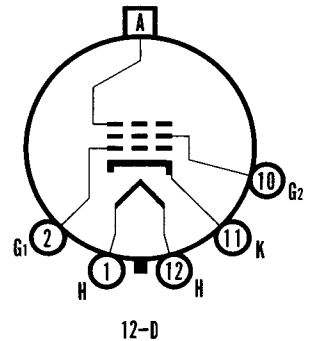
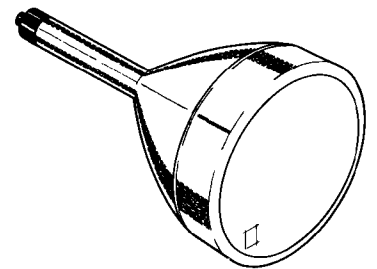
## RATINGS

### MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage		
10KP7, 10KP7A . . . . .	11,000 Volts	dc
10KP7B . . . . .	13,200 Volts	dc
Grid No. 2 Voltage . . . . .	770 Volts	dc

## QUICK REFERENCE DATA

10" Direct Viewed  
 Round Glass Type  
 Spherical, Gray Faceplate  
 10KP7B, Aluminized Screen  
 Magnetic Deflection  
 Magnetic Focus  
 10KP7A and 10KP7B, High  
 Resolution



## SYLVANIA ELECTRONIC TUBES

A Division of  
 Sylvania Electric Products Inc.

**PICTURE TUBE OPERATIONS**  
**SENECA FALLS, NEW YORK**

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*File Under*  
 SPECIAL AND GENERAL PURPOSE  
 CATHODE RAY TUBES

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

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			
	<b>10KP7</b>	<b>10KP7A</b>	<b>10KP7B</b>
Heater Negative with Respect to Cathode . . . . .	140	200	Volts
During Warm-up Period not to Exceed			
15 Seconds . . . . .			450 Volts
After Equipment Warm-up Period . . . . .			
Heater Positive with Respect to Cathode . . . . .	140	200	200 Volts

**TYPICAL OPERATING CONDITIONS**

Anode Voltage <sup>1</sup> . . . . .		9000 Volts	dc
Grid No. 2 Voltage . . . . .		250 Volts	dc
Grid No. 1 Voltage Required for Cutoff <sup>2</sup> . . . . .		-27 to -63 Volts	dc
Focusing Coil Current (Approx.) <sup>3</sup> . . . . .		112 ± 15% Ma	dc
Line Width A <sup>4</sup> (10KP7A and 10KP7B) . . . . .		0.38 mm	Max.

**MAXIMUM CIRCUIT VALUES**

Grid No. 1 Circuit Resistance . . . . .	1.5 Megohms Max.
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**NOTES:**

1. Brilliance and definition decrease with decreasing Anode Voltage. In general, the Anode Voltage should not be less than 7000 volts for Type 10KP7B and not less than 5000 volts for Types 10KP7 and 10KP7A.
2. Visual extinction of focused spot.
3. For JEDEC focusing coil 106 or equivalent, center of air gap 3¼ inches from Reference Line at an anode current of 200 µa.
4. Measured in accordance with MIL-E-1, at an anode current of 200 µa.

**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.

