

## engineering data service

### 8LP4

### **CHARACTERISTICS**

GENERAL DATA	
Focusing Method Electrostatic	
Deflecting Method Magnetic	
Deflection Angles (Approx.)	
Vertical	
Horizontal	
Diagonal	
Phosphor Aluminized P4	
Fluorescence White	
Persistence Short to Medium	
Faceplate Gray Filter Glass	
Light Transmittance (Approx.) 80 Percent	
ELECTRICAL DATA	
Heater Voltage 6.3 Volts	
Heater Current	
Heater Warm-up Time <sup>1</sup>	
Direct Interelectrode Capacitances (Approx.)	
Cathode to All Other Electrodes	
Grid No. 1 to All Other Electrodes 6 $\mu\mu$ f	
External Conductive Coating to Anode <sup>2</sup> 400 $\mu\mu$ f	Max.
200 μμf	Min.

#### MECHANICAL DATA

Minimum Usef	ul Sc	reen	Dim	ensi	ons	(M	axin	num	Ass	urc	ed)		
Height .												57/8	Inches
$\mathbf{W}$ i $\mathrm{d}$ th .												71/2	Inches
Diagonal												71/8	Inches
Area .												39	Sq. Inches
Bulb													
Bulb Contact ()	Reces	sed S	Small	Ca	vity	Cap	) .					J1-21	
Base												B6-185	
Basing												7 <b>FA</b>	
Weight (Appro	ox.)	•	•									2	Pounds

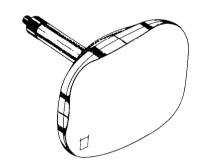
#### **RATINGS**

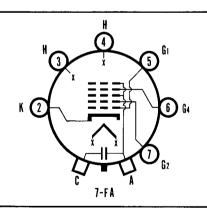
### MAXIMUM RATINGS (Design Maximum Values)

Anode Voltage						20,000 Volts	dc
Grid No. 4 (Focusing							
Voltage						-550  to + 1100  Volts	dc
Grid No. 2 Voltage						550 Volts	dc

### QUICK REFERENCE DATA

Television Picture Tube 8" Rectangular, All Glass Electrostatic Focus No Ion Trap 110° Magnetic Deflection Gray Filter Glass Aluminized Screen External Conductive Coating 6.3 Volt, 0.30 Amp. 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

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File Under
TELEVISION PICTURE TUBES

# SYLVANIA 8LP4

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MAXIMUM RATINGS (Design Maximum V	<sup>7</sup> alues)	(Cont'd.)	
Grid No. 1 Voltage			
Negative Bias Value			155 <b>V</b> olts dc
Negative Peak Value			
Positive Bias Value			
Positive Peak Value			
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			
Heater Positive with Respect to Cathode			
TYPICAL OPERATING CONDITIONS			
Anode Voltage			16,000 Volts dc
Grid No. 4 Voltage for Focus			
Grid No. 2 Voltage			
Grid No. 1 Voltage Required for Cutoff <sup>3</sup>			• • • • • • • • • • • • • • • • • • • •
Grid No. 1 Voltage Required for Cuton			. –97 to –72 Volts de
CIRCUIT VALUES			
Grid No. 1 Circuit Resistance			1.5 Megohm Max

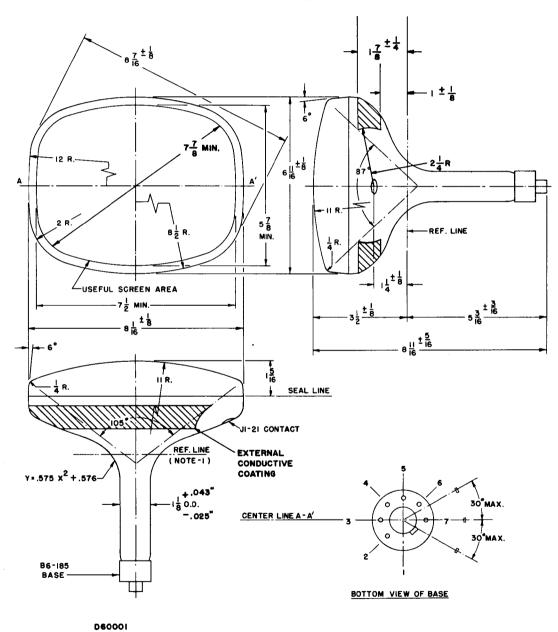
#### NOTES:

- 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. 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.

### **OUTLINE**



### **DIAGRAM NOTES:**

- 1. Reference line is determined by the plane C-C' of JEDEC No. 126 reference line gauge when the gauge is seated against the bulb.
- 2. Base Pin No. 7 aligns with horizontal centerline within 30° and is on same side as anode contact (J1-21).
- 3. Dimensions are in inches.