

# engineering data service

# 17BVP4

### **CHARACTERISTICS**

ENERAL DATA									
Focusing Method Deflection Metho									. Electrostatic
Deflection Metho	d.								Magnetic
Deflection Angles	(a	ppr	ox.	)					
Horizontal .	٠.								105 Degrees
Diagonal .									110 Degrees 87 Degrees
Vertical									87 Degrees
Phosphor									Aluminized P4
Fluorescence									White
Persistence .								5	Short to Medium
Faceplate								(	Gray Filter Glass
Light Transn	ait	tanc	e (	app	roz	ĸ.)			Gray Filter Glass 79 Percent

### **ELECTRICAL DATA**

Heater Voltage	
Heater Warm-up Time <sup>1</sup>	
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes 5 μμf	
Grid No. 1 to All Other Electrodes 6 μμf	
External Conductive Coating to Anode <sup>2</sup> 1500 μμf	Max.
1000 μμf	Min.
Ion Trap Magnet External, Single Field Type	

#### MECHANICAL DATA

Minimum (	Jsetul	Scr	een	$\mathbf{D}_{\mathbf{I}}$	me:	nsı	ons							
(Maxir	num .	Assu	red	)								14	$\frac{3}{4}$	x 1111/16 Inches
Minimum U	Jseful	Scr	een	Ar	ea									155 Sq Inches
Bulb														$J132\frac{1}{2}$ A1
Bulb Conta	ct (R	ecess	sed	Sm	all	Ca	vit	y C	Cap	)				J1-21
Base														B6-185
Basing												٠		7FA
Weight (ap	prox.	) .												10 Pounds

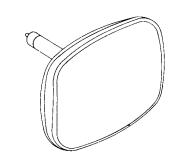
### **RATINGS**

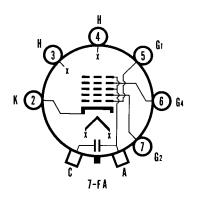
### MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage											17,600	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												Volts	
Positive Bias Value .											0	Volts	dc
Positive Peak Value					• ,						2	Volts	
Peak Heater-Cathode Volta													
Heater Negative with													
During Warm-up Period not to Exceed													
15 Seconds .												Volts	
After Equipment '	Wa:	rm-	up	Pe	rio	d						Volts	
Heater Positive with I	les <sub>]</sub>	pec	t to	C C	ath	ode	2				200	Volts	

### QUICK REFERENCE DATA

Television Picture Tube
17" Direct Viewed
Rectangular Glass Type
Lightweight Tube
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
Electrostatic Focus
110° Magnetic Deflection
11/8" Neck Diameter
Single Field Ion Trap
External Conductive Coating





# SYLVANIA ELECTRIC PRODUCTS INC.

TELEVISION PICTURE TUBE DIVISION

SENECA FALLS, NEW YORK
Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

APRIL, 1957 PAGE 1 OF 3

# 17BVP4

### PAGE 2

TYPICAL	OPFR	ATING	CON	DIT	IONS

Anode Voltage						14,000 Volts dc
Grid No. 4 Voltage for Focus						−50 to +350 Volts dc
Grid No. 2 Voltage						300 Volts dc
Grid No. 1 Voltage Required for Cutoff <sup>3</sup>						35 to -72 Volts dc
Field Strength of PM Ion Trap Magnet <sup>4</sup>						33 Gausses Min

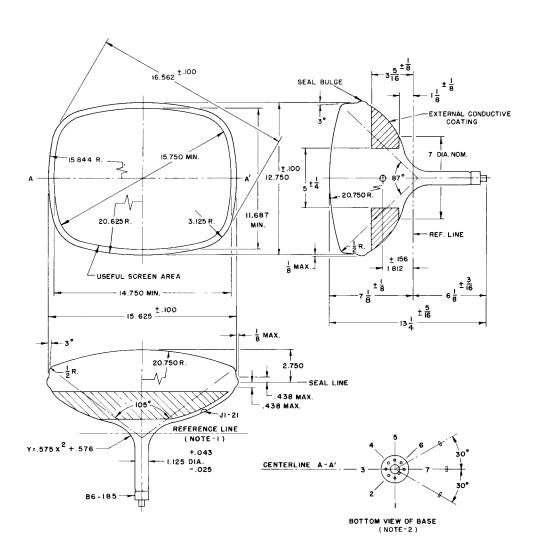
#### **CIRCUIT VALUES**

#### **NOTES:**

- 1. Heater warm-up time is the time required for the voltage across the heater terminals to increase to 5.0 volts in the JETEC test circuit, with E=25 volts and series R=31.5 ohms.
- 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.
- 4. For typical PM ion trap magnet with field strength tolerance of  $\pm 3$  gausses.

### 17BVP4

PAGE 3



#### **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.

### **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.