

# engineering data service

## 5BHP1 5BHP\*

#### **CHARACTERISTICS**

### GENERAL DATA

Focusing Method												Elec	trostati	С
Deflection Method												Elec	trostati	С
Phosphors											,	Αlι	minized	ł
Types*	Fluorescence			Phosphorescence						Persistence				
5BHP1	Green				***************************************						Medium			
5BHP2	Blue-Green			Green					Long					
5BHP5	Blue			••••••					Very Short					
5BHP7	Blue-White			Yellow					Long					
5BHP11	Blue			*****************					Short					
5BHP15	Blue	-Gre	een	************			•••			E	ctren	ely Sho	rt	
Faceplate		•											Clear	•

<sup>\*</sup>In addition to the types shown, the 5BHP- can be supplied with several other screen phosphors.

### **ELECTRICAL DATA**

Heater Voltage		
Direct Interelectrode Capacitances (approx.)		
Cathode to All Other Electrodes		
Grid No. 1 to All Other Electrodes		6.4 μμf
D1 to D2		1.9 μμf
D3 to D4		1.5 μμf
D1 to All Other Electrodes Except D2		3.5 μμf
D2 to All Other Electrodes Except D1		3.5 μμf
D3 to All Other Electrodes Except D4		2.8 μμf
D4 to All Other Electrodes Except D3		2.8 μμf
Post Accelerator Helix Resistance		200 to 600 Megohms

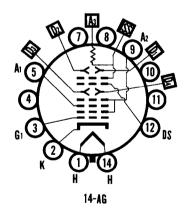
## MECHANICAL DATA

Minimum Useful Screen Diameter		. $4\frac{1}{2}$ Inches
Anode No. 3 Contact (Recessed Small Cavity Cap)		. J1-21
Bulb (Modified)		. J42K
Base (Medium Shell Diheptal 12-Pin)		B12-37
Basing		14AG
Base Alignment		
D3-D4 trace aligns with Pin No. 1		. ±10 Degrees
Positive Voltage on D1 deflects beam		
approx. toward Pin No. 4		
Positive Voltage on D3 deflects beam		
approx. toward Pin No. 1		
Angle Between traces D1-D2 and D3-D4 .		$90 \pm 1$ Degrees

## QUICK REFERENCE DATA

5" Direct Viewed
Flat Faceplate
Round Glass Type
Electrostatic Deflection
Electrostatic Focus
Helical Resistor Post
Deflection Acceleration
High Deflection Sensitivity
High Deflection Accuracy
Aluminized Screen





## SYLVANIA ELECTRONIC TUBES

A Division of Sylvania Electric Products, Inc.

## PICTURE TUBE OPERATIONS SENECA FALLS, NEW YORK

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## NOTES: (cont'd)

- 2. The isolation shield and the lower end of the post accelerator helix are connected together within the tube. With the proper potential on this electrode combination, barrel and pin-cushion distortions are minimized.
- 3. Adjustment of deflection plate shield voltage provides improved linearity of D3-D4 deflection by controlling the edge effect of D3-D4 plate field. In many applications Pin No. 12 may be connected externally to the isolation shield.
- 4. Under the typical operating conditions listed the Anode No. 2 voltage is made variable from 1575 volts to 1850 volts to provide for astignatism control. In order to maintain proper astignatism adjustment as total cathode current is varied, it is recommended that the resistance in the Anode No. 2 circuit be limited to 12,500 ohms.
- 5. Visual extinction of undeflected focused spot.
- 6. If use is made of the full deflection capabilities of the tube, the deflection plates will intercept part of the electron beam near the edge of the scan; hence a low impedance deflection plate drive is desirable.
- 7. With a 4 x 10 cm rectangular raster centered on the face of the tube, the raster edges will not deviate from straight parallel lines by more than 1 mm total on the left and right edges, nor by more than 0.5 mm total at the top and bottom.
- 8. Connect deflection plates to Anode No. 2.

### **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.

