

# 5CXP2 CATHODE RAY TUBE

The 5CXP2 is a 5-inch flat-faced electrostatically focused and deflected cathode ray tube, designed for oscillographic applications where low deflection plate capacitances are essential. All four deflection plate leads are short and direct, terminating in heavy wire contacts on the neck of the tube rather than in the tube base. Employing low accelerating voltages, the 5CXP2 has high deflection sensitivity and brilliant light output. The flat face reduces errors in measurements made from the screen. These features, combined with the high degree of accuracy inherent in the tight-tolerance design, make the 5CXP2 particularly well suited for accurate analysis of high frequencies and rapid pulses and transients.

## GENERAL CHARACTERISTICS

### Electrical Data

Heater Voltage .....	6.3 Volts
Heater Current .....	0.6*10% Amperes
Focusing Method .....	Electrostatic
Deflecting Method .....	Electrostatic
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes .....	5.0 uuf
Grid No. 1 to All Other Electrodes .....	5.0 uuf
Deflecting Plates D1 and D2 .....	2.0 uuf
Deflecting Plates D3 and D4 .....	2.0 uuf
D1 to All Other Electrodes except D2 .....	2.5 uuf
D2 to All Other Electrodes except D1 .....	2.5 uuf
D3 to All Other Electrodes except D4 .....	2.0 uuf
D4 to All Other Electrodes except D3 .....	2.0 uuf

### Optical Data

Screen .....	P2
Fluorescence .....	Green
Persistence .....	Long
Faceplate .....	Clear

### Mechanical Data

Overall Length .....	14-3/4±3/8 Inches
Greatest Diameter of Bulb .....	5-1/4±3/32 Inches
Minimum Useful Screen Diameter .....	4-1/2 Inches
Neck Contacts .....	Wire Leads
Base .....	Small Shell Duodecal 12-pin, JEDEC No. B12-43
Base Alignment:	
D1D2 trace aligns with Pin No. 4 and tube axis ....	±10 Degrees
Angle between D3D4 and D1D2 traces .....	90±1 Degrees

### Maximum Ratings (Design Center Values)

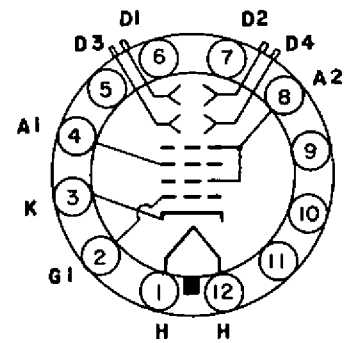
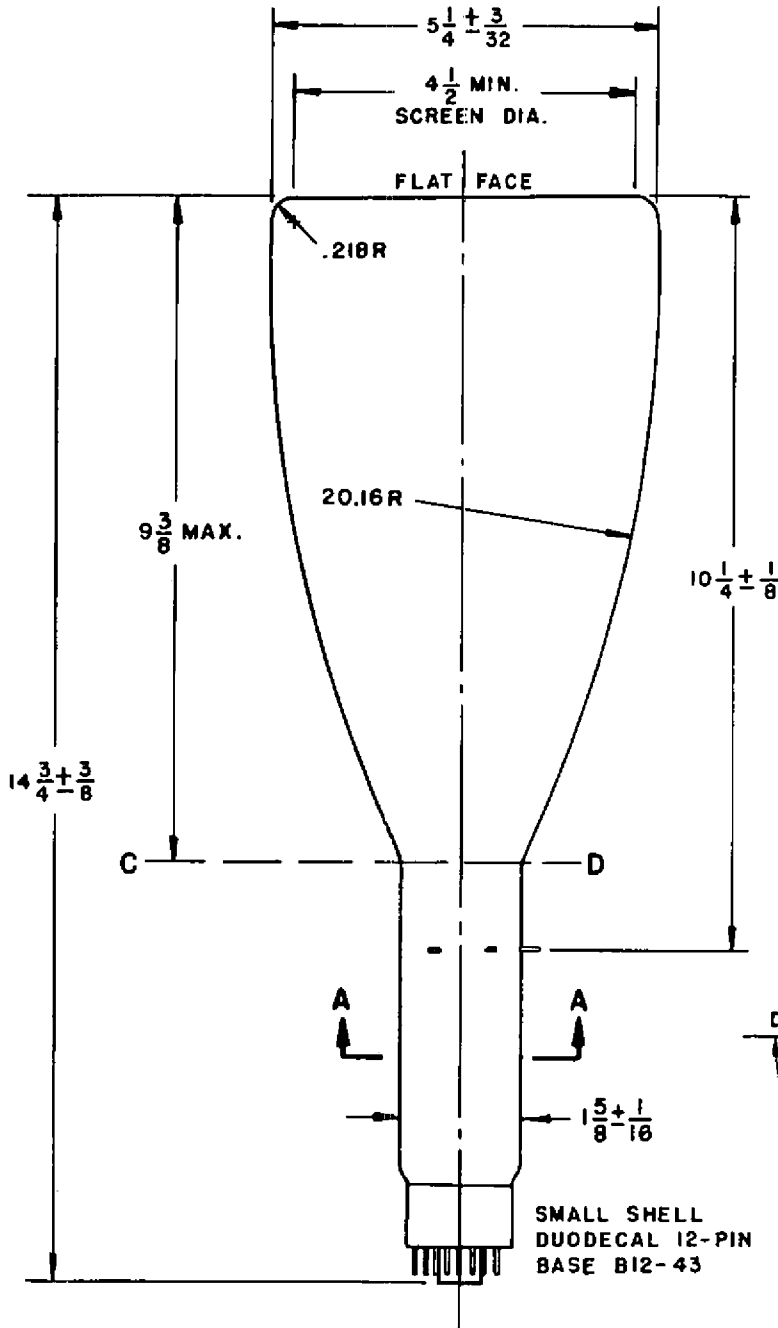
Anode No. 2 Voltage .....	2750 Max. Volts
Anode No. 1 (Focusing) Voltage .....	1100 Max. Volts
Grid Voltage	
Negative Bias Value .....	220 Max. Volts
Positive Bias Value .....	0 Max. Volts
Positive Peak Value .....	2 Max. Volts
Peak Voltage between Anode No. 2 and any	
Deflection Plate .....	550 Max. Volts

### Typical Operating Conditions

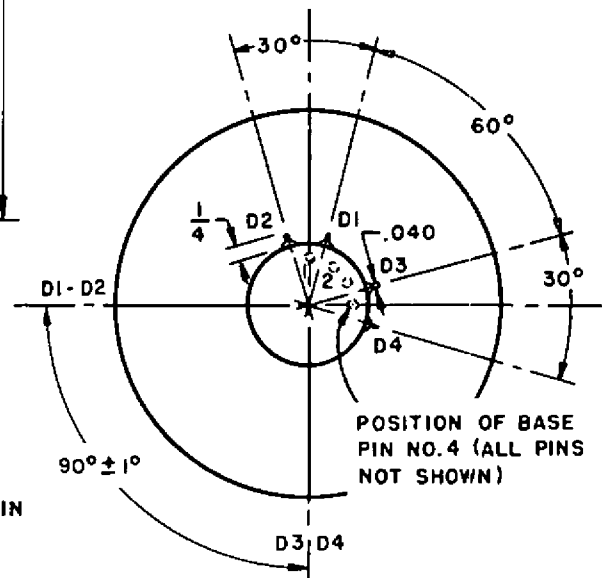
Anode No. 2 Voltage .....	1500 Volts
Anode No. 1 (Focusing) Voltage .....	250 to 475 Volts
Maximum Grid Voltage Required for Cutoff .....	-70 Volts
Deflection Factors	
Deflecting Plates D1D2 (approx.) .....	49 Volts DC/Inch
Deflecting Plates D3D4 (approx.) .....	39 Volts DC/Inch



OUTLINE DRAWING



OUTER CONTACTS ON NECK  
INNER CONTACTS ON BASE



POSITION OF BASE  
PIN NO. 4 (ALL PINS  
NOT SHOWN)

SECTION A-A

Brilliance and definition decrease with decreasing Anode No. 2 voltage. In general, Anode No. 2 voltage should not be less than 1000 volts. Angle between trace produced by plates D1-D2 and the plane through the tube axis and Pin. No. 4 does not exceed 10°. (Deflecting Plates 1-2 are nearer the screen.)