

5FP- CATHODE-RAY TUBES

The Types 5FP- Cathode-ray Tubes are magnetically focussed and deflected cathode-ray tubes with a relatively large and flat screen area. Primarily designed for radar indicator applications, the Type 5FP- features an electron gun with a limiting aperture to produce a sharp, round spot at high screen currents.

The Type 5FP- Cathode-ray Tubes are similar to the 7-inch 7BP-, the 10-inch 10KP-, and the 12-inch 12SP-. Selection of one of these radar-type tubes would be determined by the screen size desired and the exact electrical characteristics needed to fit the application.



GENERAL CHARACTERISTICS

Electrical

Heater Voltage	6.3 Volts
Heater Current	$0.6 \pm 10\%$ Ampere
Focusing Method	Magnetic
Deflecting Method	Magnetic
Deflecting Angle (Approx.)	53 Degrees

Phosphor	No. 5	No. 7	No. 14
Fluorescence	Blue	Blue	Blue
Phosphorescence	—	Yellow	Orange
Persistence	Short	Long	Medium-long

Direct Interelectrode Capacitances, Approx.

Cathode to all other electrodes	5 μ f.
Grid No. 1 to all other electrodes	8 μ f.

Mechanical

Overall Length	$11\frac{1}{8} \pm \frac{3}{8}$ Inches
Greatest Diameter of Bulb	$4\frac{15}{16} \pm \frac{3}{32}$ Inches
Minimum Useful Screen Diameter	4 $\frac{1}{4}$ Inches
Bulb Contact (Recessed Small Ball Cap)	J1-22
Base (Medium-Shell Octal 8-Pin)	B8-65 or B8-11
Basing	5AN
Bulb Contact Alignment J1-22 Contact aligns with Pin No. 5	± 10 Degrees

MAXIMUM RATINGS—(Design Center Values)

Anode Voltage	8,000 Max. Volts D-C
Grid No. 2 Voltage	700 Max. Volts D-C
Grid No. 1 Voltage	
Negative Bias Value	180 Max. Volts D-C
Positive Bias Value ¹	0 Max. Volts D-C
Positive Peak Value	2 Max. Volts
Peak Heater-Cathode Voltage	
Heater Negative with respect to Cathode	125 Max. Volts D-C
Heater Positive with respect to Cathode	125 Max. Volts D-C

TYPICAL OPERATING CONDITIONS

Anode Voltage	4,000	7,000	Volts D-C
Grid No. 2 Voltage	250	250	Volts D-C
Grid No. 1 Voltage ²	-25 to -70	-25 to -70	Volts D-C
Focusing Coil Current ³	75 to 102	99 to 135	Ma. D-C
Spot Position (Undelected) ⁴	9	—	mm.

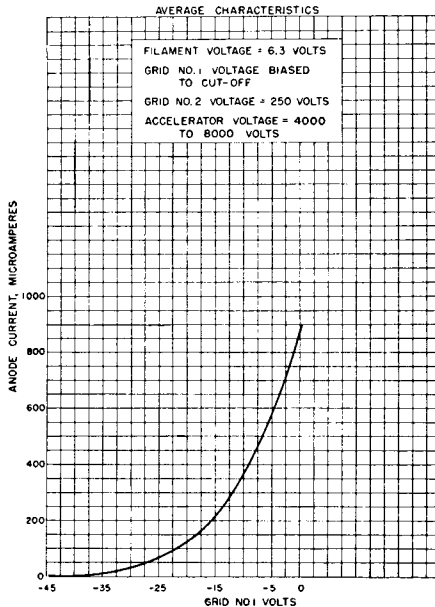
MAXIMUM CIRCUIT VALUES

Grid No. 1 Circuit Resistance 1.5 Max. Megohms

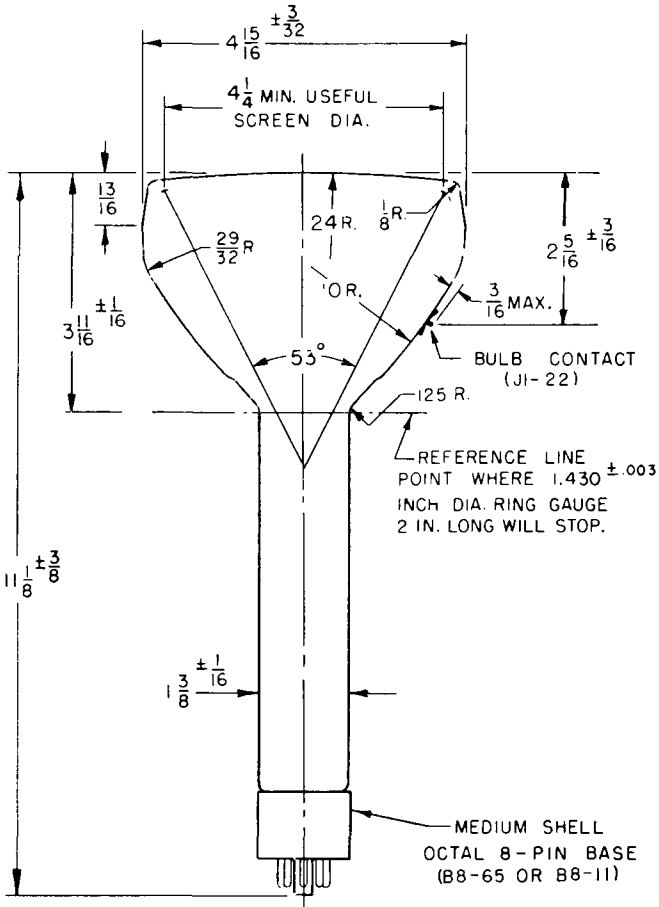
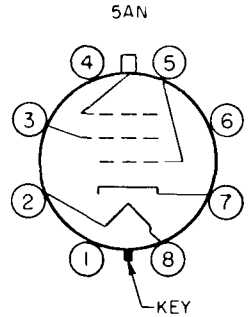
NOTES

1. At or near this rating, the effective resistance of the anode supply should be adequate to limit the anode input power to 6 watts.
2. Visual extinction of undeflected focused spot.
3. For JETEC standard focus coil No. 106, or equivalent, with the grid No. 1 voltage adjusted to produce an anode current of 200 microamperes and with distance (D) from reference line to center of air gap equal to 2.75 inches.
4. The center of the undeflected, unfocused spot will fall within a circle of 9 mm. radius concentric with the center of the tube face.

5FP-

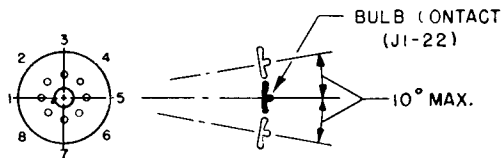


TYPE 5FP-



BOTTOM VIEW OF BASE

PIN NO.	ELEMENT
2	HEATER
3	GRID NO 2
5	GRID NO. 1
7	CATHODE
8	HEATER
CAP	ACCELERATOR



BOTTOM VIEW OF TUBE