

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 $5 \mu\text{f.}$
 Grid No. 1 to all other electrodes $8 \mu\text{f.}$

Mechanical

Overall Length $11\frac{1}{8} \pm \frac{3}{8}$ Inches
 Greatest Diameter of Bulb $4\text{-}15/16 \pm 3/32$ 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 Value¹ 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.

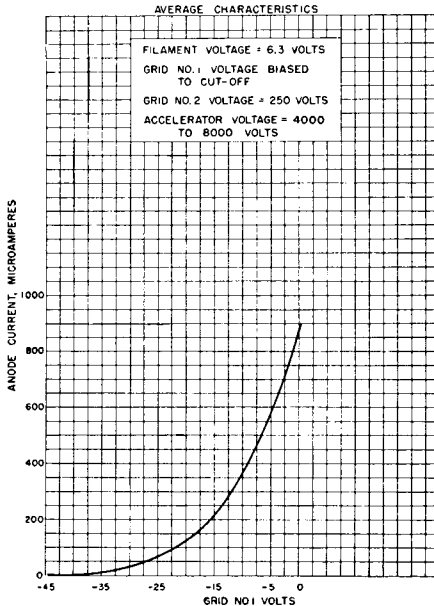
MAXIMUM CIRCUIT VALUES

Grid No. 1 Circuit Resistance 1.5 Max. Megohms

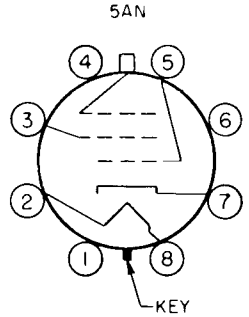
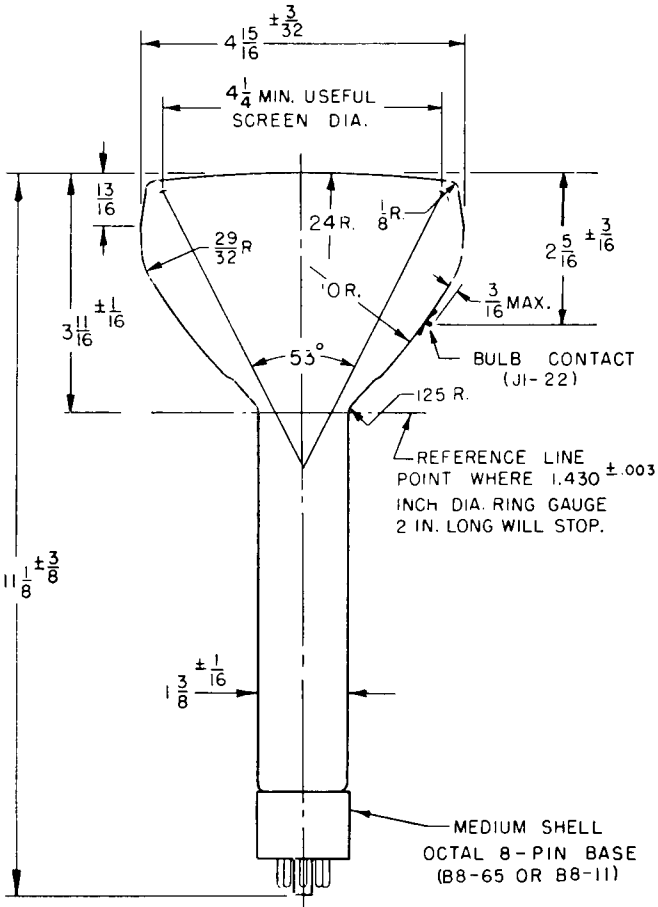
NOTES

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-

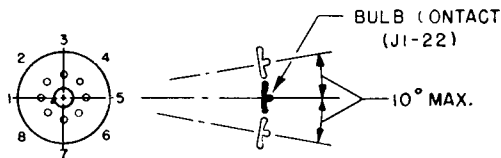


TYPE 5FP-



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