

CHARACTERISTICS

GENERAL DATA

Focusing Method.....	Electrostatic
Deflecting Method.....	Magnetic
Deflecting Angle-Diagonal (Approx.)	90 Degree
Horizontal	85 Degree
Vertical.....	68 Degree
Phosphor.....	P4 Aluminized
Fluorescence	White
Persistence	Medium
Faceplate	Gray Filter Glass
Light Transmission (approx.).....	74 Percent

THE 21CKP4 IS A DIRECT-VIEW PICTURE TUBE FOR USE IN TELEVISION RECEIVERS AND INCLUDES SUCH FEATURES AS:

- A short straight electron gun not requiring an ion trap.

- A short neck length.
- 6.3V - .45A. heater

- A gray tinted face affording approximately 74% light transmission.

- Rectangular Glass Type

- Spherical Face

- Electrostatic Focus

- Metal Backed Screen

ELECTRICAL DATA

Heater Voltage.....	6.3 Volts
Heater Current.....	.45 Ampere $\pm$ 10 %
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes	5 uuf
Grid No. 1 to All Other Electrodes	6 uuf
Ion Trap Magnet	None

MECHANICAL DATA

Minimum Useful Screen Dimensions	19 1/16 x 15 1/16 Inches
Minimum Useful Screen Area (approx.)	262 Sq. In.
Bulb Contact (Recessed Small Cavity Cap).....	J1-21
Base (Small Shell Duodecal 6 Pin).....	JETEC B6-63
Basing	12L
J1-21 Contact Aligns with Pin Position No.	6 $\pm$ 30 Degrees

NOTES:

1. Grid No. 5, Grid No. 3, and the collector are connected together within the tube, are referred to herein as anode.

2. Cathode should be returned to one side or to the mid-tap of the heater transformer winding.

3. For focus with anode current of 100 ua and 19 1/16 x 15 1/16 raster.

4. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.

RATINGS

MAXIMUM RATINGS (Design Center Values).

Anode Voltage (Note 1).	20,000 Volts dc
Grid No. 4 Voltage (focusing electrode)-500 to 41000 Volts dc	
Grid No. 2 Voltage	500 Volts dc
Grid No. 1 Voltage	
Negative Bias Value.....	140 Volts
Positive Bias Value	0 Volts dc
Positive Peak Value	2 Volts
Peak Heater-Cathode Voltage (Note 2)	
Heater Negative with Respect to Cathode	
During Warm-up Period Not to exceed 15sec. 410 Volts dc	
After Equipment Warm-up Period.....	180 Volts dc
Heater Positive with Respect to Cathode.....	180 Volts dc

RECOMMENDED OPERATING CONDITIONS

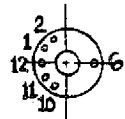
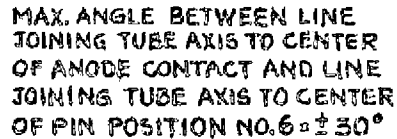
Anode Voltage	16,000 Volts dc
Grid No. 4 Voltage (Note 3).....	-50 to 4350 Volts dc
Grid No. 2 Voltage	300 Volts dc
Grid No. 1 Voltage (Note 4).....	-28 to -72 Volts dc

CIRCUIT VALUES

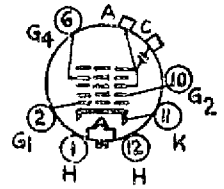
Grid No. 1 Circuit Resistance.....	1.5 Max. Megohm
External Conductive Coating to Anode	
Capacitance-	2500 uuf. Max.
.....	2000 uuf. Min.

THOMAS ELECTRONICS, INC.
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TERMINAL CONNECTIONS



- 1 HEATER
2 GRID NO. 1
10 GRID NO. 2
11 CATHODE
12 HEATER
CAP AND 0
6 FOCUS



12-L

DIAGRAM NOTES:

1. The plane through the tube axis and pin position No. 6 may vary from the plane through the tube axis and anode terminal by an angular tolerance (measured about the tube axis) of 30° . Anode terminal is on same side as pin position No. 6.
2. Reference line is determined by position where upper edge of hinged gauge RTMA #116 will rest on Bulb Cone.

WARNING:

X-Ray Warning. If this tube is operated in excess of 16,000 Volts, X-Ray shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range. Such protection may be provided by the protective face viewing window of apparatus using tubes of this type. Protection is sufficient if the radiation measured in contact with the window is less than 6.25 MR/hr.

Additional data will be furnished by our engineering department upon request.