

Thomas

ENGINEERING DATA

23WP4

Phototron
Picture
Tube

CHARACTERISTICS

GENERAL DATA

Focusing Method.....Electrostatic
Deflecting Method.....Magnetic
Deflecting Angle-Diagonal (Approx.)114 Degrees
Horizontal102 Degrees
Vertical.....84 Degrees

Phosphor..... P4 Aluminized
Fluorescence White
Persistence Medium
Faceplate Gray Filter Glass
Light Transmission 70% (Approx.)

ELECTRICAL DATA

Heater Voltage 6.3 Volts
Heater Current6 Ampere $\pm$ 5%
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 1/4 x 15 3/16 Inches
Minimum Useful Screen Area (Approx.)..... 276 Sq. In.
Bulb Contact (Recessed Small Cavity Cap)..... J1-21
Base (Small Wafer Eightpin 7 Pin B7-183 or B7-208
Basing 8 HR
J1-21 Contact Aligns with Pin Position No. 4 $\pm$ 30 Degrees
Bulb Weight 24 Lbs

RATINGS

MAXIMUM RATINGS (Design Maximum Values)

Anode Voltage (Note 1)..... 20,000 Volts dc
Grid No. 4 Voltage (Focusing electrode)=500 to + 2000 Volts dc
Grid No. 2 Voltage 550 Volts dc
Grid No. 1 Voltage
Negative Bias Value..... 154 Volts dc
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. 15 sec. 450 Volts dc
After Equipment Warm-up Period 200 Volts dc
Heater Positive with Respect to Cathode 200 Volts dc

RECOMMENDED OPERATING CONDITIONS

Anode Voltage 16,000 Volts dc
Grid No. 4 Voltage (Note 3)..... 0 to + 400 Volts dc
Grid No. 2 Voltage 300 Volts dc
Grid No. 1 Voltage (Note 4) -35 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., PASSAIC, NEW JERSEY

THE 23WP4 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
- A diagonal deflection angle of 114°
- A gray tinted face.
- Rectangular Glass Type.
- Flat compound face.
- Electrostatic Focus
- Metal Backed Screen

NOTES

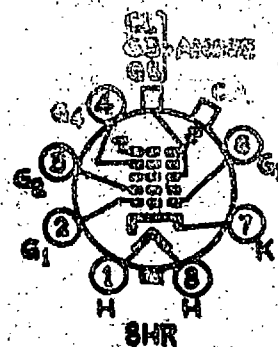
1. Grid No. 5, Grid No. 3, and the collector are connected together within the tube, and referred to herein as anode.
2. Cathode should be returned to one side or to the mid-tap of the heater transformer winding.
3. For focus with anode current of 100 ua and 19 1/4 x 15 3/16" raster.
4. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.

THOMAS ELECTRONICS, INC.

118 9TH STREET,

PASSAIC, NEW JERSEY

SECRET CONNECTIONS
BOTTOM VIEW



- PIN 1 : HEATER
PIN 2 : GRID N°1
PIN 3 : GRID N°2
PIN 4 : GRID N°4
PIN 6 : GRID N°1
PIN 7 : CATHODE
PIN 8 : HEATER
CAP : ULTOR (GRID N°3,
GRID N°5 COLLECTOR)
C : EXTERNAL CONDUCTIVE
COATING

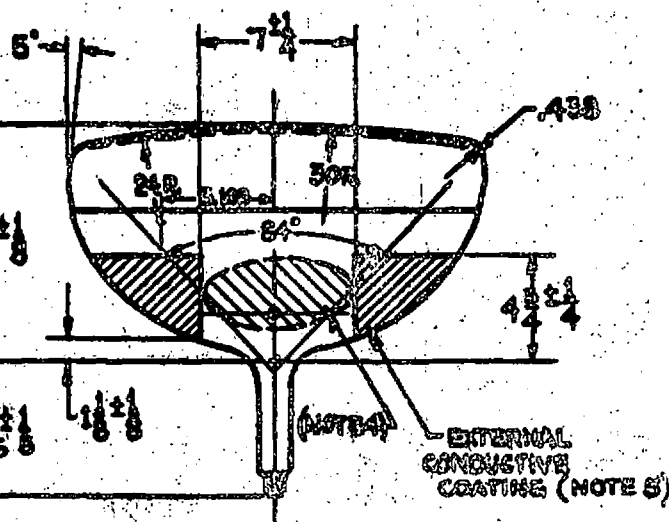


DIAGRAM NOTES:

1. Base Pin No. 4 aligns with horizontal centerline (A-A') within 30° and is on same side as anode contact, J1-21.
2. Reference line is determined by plane C-C' of JEDEC No. 126 Reference Line Gauge, when the gauge is seated against the bulb.
3. Socket for this base should not be rigidly mounted; it should have flexible leads and be allowed to move freely. Bottom circumference of base shell will fall within a circle concentric with bulb axis and having a diameter of 1-3/4".
4. Anti-corona coating around connector.
5. External conductive coating must be grounded.