PAN-O-Ply — Integral Implosion Protection

(Provided by Formed Rim and Welded Tension Bands around Periphery of Tube Panel—No Separate Safety-Glass or Integral Protective Window Required)

Rectangular Glass Type — Aluminized Screen
Low-Voltage Electrostatic Focus — 110° Magnetic Deflection

No Ion-Trap Magnet Required

Low-Grid-No.2-Voltage—for Cathode-Drive Operation

Electrical:

Direct Inter electrode Capacitances:
- Cathode to all other electrodes... 5 pf
- Grid No.1 to all other electrodes... 6 pf
- External conductive coating to anode... 2500 max. pf
- 1700 min. pf

Heater Current at 6.3 volts. ... 450 ± 20 ma
Heater Warm-Up Time (Average)... 11 seconds
Electron Gun... Type Requiring No Ion-Trap Magnet

Optical:

Phosphor (For curves, see front of this section) .P4—Sulfide Type, Aluminized
Faceplate... Filterglass
Light transmission at center (Approx.)... 42%

Mechanical:

Weight (Approx.)... 28 lbs
Overall Length... 14.875" ± .281"
Neck Length... 5.125" ± .125"
Projected Area of Screen... 282 sq. in.

External Conductive Coating:
- Type... Regular-Band
- Contact area for grounding... Near Reference Line

For Additional Information on Coatings, Dimensions, and Deflection Angles:
See Picture-Tube Dimensional-Outlines and Bulb J187 K sheets at the front of this section.

Cap... Recessed Small Cavity (JEDEC No. J1-21)
Base... Small-Button Neoeightar 7-Pin, Arrangement 1, (JEDEC No. B7-208)
Basing Designation for BOTTOM VIEW... 8HR

Pin 1—Heater
Pin 2—Grid No.1
Pin 3—Grid No.2
Pin 4—Grid No.4
Pin 6—Grid No.1
Pin 7—Cathode
Pin 8—Heater

Cap—Anode
(Grid No.3, Grid No.5, Collector)
C—External Conductive Coating
Maximum and Minimum Ratings, Design-Maximum Values:

Unless otherwise specified, voltage values are positive with respect to grid No. 1

Anode Voltage: \[ 23000 \text{ max. volts} \]
\[ 11000 \text{ min. volts} \]

Grid-No.4 Voltage:
- Positive value: \[ 1250 \text{ max. volts} \]
- Negative value: \[ 400 \text{ max. volts} \]

Grid-No.2 Voltage:
- Positive value: \[ 70 \text{ max. volts} \]
- Negative value: \[ 40 \text{ min. volts} \]

Cathode Voltage:
- Negative peak value: \[ 2 \text{ max. volts} \]
- Negative bias value: \[ 0 \text{ max. volts} \]
- Positive bias value: \[ 100 \text{ max. volts} \]
- Positive peak value: \[ 150 \text{ max. volts} \]

Heater Voltage: \[ 6.9 \text{ max. volts} \]
\[ 5.7 \text{ min. volts} \]

Peak Heater-Cathode Voltage:
Heater negative with respect to cathode:
- During equipment warm-up period not exceeding 15 seconds: \[ 450 \text{ max. volts} \]
- After equipment warm-up period: \[ 300 \text{ max. volts} \]

Heater positive with respect to cathode:
- Combined AC & DC voltage: \[ 200 \text{ max. volts} \]
- DC Component: \[ 100 \text{ max. volts} \]

Typical Operating Conditions for Cathode-Drive Service:

Unless otherwise specified, voltage values are positive with respect to grid No. 1

Anode Voltage: \[ 18000 \text{ volts} \]

Grid-No.4 Voltage: \[ 200 \text{ volts} \]

Grid-No.2 Voltage: \[ 50 \text{ volts} \]

Cathode Voltage for visual extinction of focused raster: \[ 34 \text{ to } 52 \text{ volts} \]

Field Strength of required adjustable Centering Magnet: \[ 0 \text{ to } 12 \text{ gauss} \]

Maximum Circuit Value:

Grid-No.1 Circuit Resistance: \[ 1.5 \text{ max. megohms} \]

\( a \) Includes implosion protection hardware.

\( b \) The grid-No.4 voltage required for optimum focus of any individual tube will have a value anywhere between 0 and +400 volts with the combined grid-No.1 voltage and video-signal voltage adjusted to give an anode current of 200 microamperes on a 13-1/2-inch by 19-inch pattern from an RCA-2F21 monoscope, or equivalent.

For X-radiation shielding considerations, see sheet X-RADIATION PRECAUTIONS FOR CATHODE-RAY TUBES at front of this Section