Picture Tube

SHORT RECTANGULAR GLASS TYPE
LOW-VOLTAGE ELECTROSTATIC FOCUS
LOW GRID-No.2 VOLTAGE

ALUMINIZED SCREEN
114° MAGNETIC DEFORMATION
CATHODE-DRIVE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

**Electrical:**
- Heater Current at 6.3 volts: 600 ± 30 ma
- Heater Warm-Up Time (Average): 11 seconds
- Direct Interelectrode Capacitances:
  - Grid No.1 to all other electrodes: 6 μf
  - Cathode to all other electrodes: 5 μf
  - External conductive coating to ultor: (1500 max. at 1000 min.) μf

**Optical:**
- Faceplate: Filterglass
- Light transmission (Approx.): 78%
- Phosphor (For curves, see front of this section): P4—Sulfide Type, Aluminized

**Mechanical:**
- Operating Position: Any
- Weight (Approx.): 14 lbs
- Overall Length: 11-5/8" ± 1/4"
- Neck Length: 4-3/8" ± 1/8"
- Projected Area of Screen: 172 sq. in.

**External Conductive Coating:**
- Type: Regular Band Contact area for grounding: Near Reference Line
- For Additional Information on Coatings and Dimensions:
  - See Picture Tube Dimensional-Outlines and Bulb J149 A sheets at the front of this section
  - Cap: Recessed Small Cavity (JEDEC No.J1-21)
  - Base: Small-Button Neneightar 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—Ultor (Grid No.3, Collector)
C—External Conductive Coating
Maximum and Minimum Ratings, Design-Maximum Values:

ULTOR-TO-GRID-No.1 VOLTAGE: \( \begin{align*} &\text{max. volts} = 20000 \\ &\text{min. volts} = 10000 \end{align*} \)

GRID-No.4-TO-GRID-No.1 (FOCUSING) VOLTAGE:
- Positive value \( \text{volts} = 1250 \) max.
- Negative value \( \text{volts} = 400 \) max.

GRID-No.2-TO-GRID-No.1 VOLTAGE:
- Positive peak value \( \text{volts} = 70 \) max.
- Negative peak value \( \text{volts} = 40 \) min.

CATHODE-TO-GRID-No.1 VOLTAGE:
- Positive peak value \( \text{volts} = 150 \) max.
- Positive bias value \( \text{volts} = 100 \) max.
- Negative bias value \( \text{volts} = 0 \) max.
- Negative peak value \( \text{volts} = 2 \) max.

HEATER VOLTAGE:
- Positive with respect to cathode: \( \text{volts} = 6.9 \) max.
- Negative with respect to cathode: \( \text{volts} = 5.7 \) min.

Typical Operating Conditions:
- With ultor-to-grid-No.1 voltage of \( \text{volts} = 16000 \)
- And grid-No.2-to-grid-No.1 voltage of \( \text{volts} = 50 \)
- Grid-No.4-to-Grid-No.1 Voltage for focus \( -50 \) to \( +250 \) volts
- Cathode-to-Grid-No.1 Voltage for visual extinction of focused raster \( 32 \) to \( 50 \) volts

Maximum Circuit Values:
- Grid-No.1-Circuit Resistance \( \text{megohms} = 1.5 \) max.

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