Picture Tube

PAN-O-Ply Type with Mounting Lugs

110° Magnetic Deflection

Low Grid-No. 2 Voltage

Electrical

Direct Interelectrode Capacitances

Cathode to all other electrodes... 5 pF

Grid No. 1 to all other electrodes... 6 pF

External conductive coating to anode... 1700 min—2500 max pF

Heater Current at 6.3 V... 450 ± 20 mA

Heater Warm-Up Time (Average)... 11 s

Electron Gun... Type Requiring No Ion-Trap Magnet

Optical

Phosphor... P4—Sulfide Type, Aluminized

Faceplate... Filterglass

Light transmission at center (Approx.)... 42%

Mechanical

Weight (Approx.)... 28 lb

Overall Length... 14.875 ± .281 in

Neck Length... 5.125 ± .125 in

Projected Area of Screen... 282 sq in

External Conductive Coating

Type (See CRT OUTLINES 1 at front of this section)... Regular-Band Contact area for grounding... Near Reference Line

Cap... Recessed Small Cavity (JEDEC No.U1-21)

Base... Small-Button Neoeightar 7-Pin, Arrangement 1, (JEDEC No.B7-208)

Terminal Diagram (Bottom View)

Pin 1—Heater
Pin 2—Grid No. 1
Pin 3—Grid No. 2
Pin 4—Grid No. 4
Pin 5—Grid No. 1
Pin 7—Cathode
Pin 8—Heater

Cap—Anode (Grid No.3, Grid No.5, Screen Collector)

C—External Conductive Coating

Maximum and Minimum Ratings, Design-Maximum Values

Voltages are positive with respect to grid No. 1

Anode Voltage... 12000 min—22000 max V

Grid-No. 4 Voltage

Positive value... 1250 max V

Negative value... 400 max V

Grid-No. 2 Voltage... 30 min—70 max V

Cathode Voltage

Negative peak value... 2 max V

Negative bias value... 0 max V

Positive bias value... 100 max V

Positive peak value... 150 max V
Heater Voltage: 5.7 min—6.9 max V

Peak Heater-Cathode Voltage

Heater negative with respect to cathode:
- During equipment warm-up period ≤ 15 s: 450 max V
- After equipment warm-up period: 300 max V

Heater positive with respect to cathode:
- Combined AC & DC voltage: 200 max V
- DC component: 100 max V

Typical Operating Conditions for Cathode-Drive Service

Voltages are positive with respect to grid No.1

Anode Voltage: 16000 V
Grid-No.4 Voltage: 0 to 400 V
Grid-No.2 Voltage: 50 V
Cathode Voltage: 32 to 50 V

For visual extinction of focused raster
Field Strength: 0 to 10 G

Of required adjustable centering magnet

Maximum Circuit Value

Grid-No.1 Circuit Resistance: 1.5 max MΩ

Includes implosion protection hardware.

For X-radiation shielding considerations, see sheet

X-Radiation Precautions for Cathode-Ray Tubes
at front of this section

Dimensional Outline

(Bulb J187K with Mounting Lugs)

Minimum Screen

Diagonal: 22.312
Greatest Width: 19.250
Greatest Height: 15.125

Rim-Band Opening: 15.930 min.

Dimensions in Inches

Reference Line
Determined by Gauge
JEDEC No. G-126

RCA
Electronic Components and Devices
Harrison, N.J.