PAN-O-PLY TYPE WITH MOUNTING LUGS 114° MAGNETIC DEFLECTION

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: 1250 min—1750 max pF

Heater Current at 6.3 V: 450 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.): 48%

MECHANICAL

Weight (Approx.): 15 lb
Overall Length: 11.625 ± .250 in
Neck Length: 4.375 ± .125 in
Projected Area of Screen: 172 sq in

External Conductive Coating
- Type (see CRF OUTLINES at front of this section): Regular-Band
- Contact area for grounding: Near Reference Line
- Cap: Recessed Small Cavity (JEDEC No.J1-21)
- Base: Small-Button Neoeightar 7-Pin, Arrangement I, (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 6—Grid No.1
Pin 7—Cathode
Pin 8—Heater
Cap—Anode (Grid No.3, Grid No.5, Screen, Collector)
C—External Conductive Coating

N83R

MAXIMUM AND MINIMUM RATINGS, DESIGN—MAXIMUM VALUES

Voltages are positive with respect to cathode

Anode Voltage: 11000 min—23000 max V
Grid-No.4 Voltage
  Positive value: 1100 max V
  Negative value: 550 max V
Grid-No.2 Voltage: 200 min—550 max V
**Grid-No.1 Voltage**
- Negative peak value: 220 max V
- Negative bias value: 155 max V
- Positive bias value: 0 max V
- Positive peak value: 2 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 \( \leq 15 \) 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**: 300 V
- **Cathode Voltage**: 28 to 62 V

For visual extinction of focused raster

**Field Strength**: 0 to 8 G

Of required adjustable centering magnet

**MAXIMUM CIRCUIT VALUE**

- Grid-No.1 Circuit Resistance: 1.5 max \( \text{M} \Omega \)

*Includes implosion protection hardware.*

See *X-RADIATION PRECAUTIONS* at front of this section

**DIMENSIONAL OUTLINE (JEDEC BULB J149F2A)**

[Diagram showing dimensions and specifications]

**DATA**

RADIO CORPORATION OF AMERICA
Electronic Components and Devices
Harrison, N. J.