

Picture Tube

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)

LOW-VOLTAGE ELECTROSTATIC FOCUS 114° MAGNETIC DEFLECTION

NO ION-TRAP MAGNET REQUIRED

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

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 ^a	{ 1750 max	pF ←
	{ 1250 min	pF ←
Heater Current at 6.3 volts	600 ± 30	mA
Heater Warm-Up Time (Average)	11	s
Electron Gun	Type Requiring No Ion-Trap Magnet	

OPTICAL

Phosphor **P4—Sulfide Type, Aluminized**
(For Curves, see front of this section)

Faceplate **Filterglass**
Light Transmission (Approx.) **48% ←**

MECHANICAL

Weight (Approx.) **15.5 lbs ←**
Overall Length **11.625 ± 0.250 in**
Neck Length **4.375 ± 0.125 in**
Projected Area of Screen **172 sq in**

External Conductive Coating^a

Type **Regular-Band**

Contact area for grounding **Near Reference Line**

For Additional Information on Coatings and Dimensions

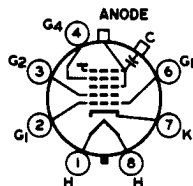
See *Picture-Tube Dimensional-Outlines* and *Bulb J149 F* sheets at front of this section

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, Screen, Collector)
- C — External Conductive Coating



← Indicates a change.



19DSP4

MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

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

Anode Voltage	{ 20000 max 10000 min	V V
Grid-No.4 (Focusing) Voltage		
Positive value.	1250 max	V
Negative value.	400 max	V
Grid-No.2 Voltage	{ 70 max 40 min	V 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.	{ 6.9 max 5.7 min	V V
Peak Heater-Cathode Voltage		
Heater negative with respect to cathode:		
During equipment warm-up period		
not exceeding 15 seconds.	450 max	V
After equipment warm-up period.	300 max	V
Heater positive with respect to cathode:		
Combined AC and DC voltage.	200 max	V
DC component.	100 max	V

TYPICAL OPERATING CONDITIONS FOR CATHODE-DRIVE SERVICE

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

Anode Voltage	16000	V
Grid-No.4 Voltage ^b	100	V
Grid-No.2 Voltage	50	V
Cathode Voltage for visual extinction		
of focused raster	32 to 50	V
Field Strength of required adjustable		
centering magnet.	0 to 8	G

MAXIMUM CIRCUIT VALUE

Grid-No.1 Circuit Resistance.	1.5 max	MΩ
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^a External conductive coating and implosion protection hardware must be grounded.

^b The grid-No.4 voltage required for optimum focus of any individual tube will have a value anywhere between -100 and +300 volts with the combined grid-No.1 voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 10-1/2-inch by 14-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

