23GSP4

Picture Tube

PAN-O-PLY TYPE — LOW-VOLTAGE ELECTROSTATIC FOCUS
NO ION-TRAP MAGNET REQUIRED — 110° MAGNETIC DEFLECTION

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	600 ± 30	mA
Heater Warm-Up Time (Average)	11	s
Electron Gun	Type Requiring No Ion-Trap Magnet	

OPTICAL

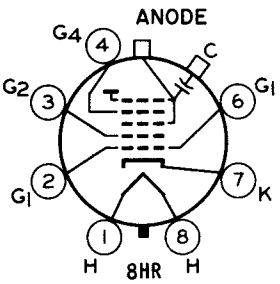
Phosphor	P4—Sulfide Type, Aluminized
For curves, see front of this section	
Faceplate	Filterglass
Light transmission at center (Approx.)	42%

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[a]	
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.J1-21)
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 6 – 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 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 ≤ 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	18000	V
Grid-No.4-Voltage[b].	200	V
Grid-No.2 Voltage	300	V
Cathode Voltage	28 to 62	V
For visual extinction of focused raster		
Field Strength.	0 to 12	G
Of required adjustable centering magnet		

MAXIMUM CIRCUIT VALUE

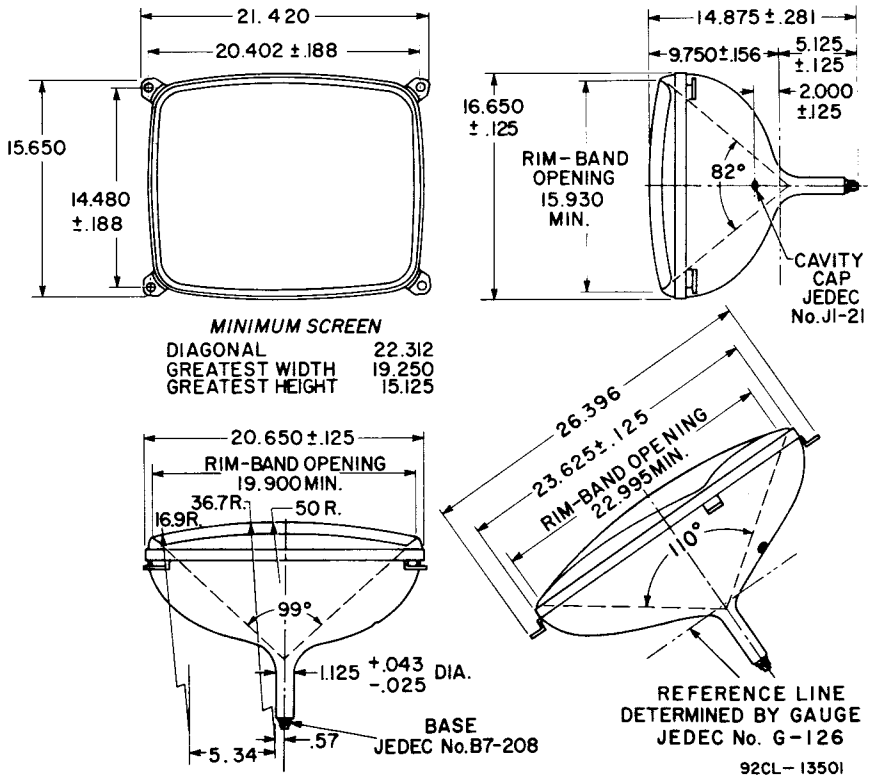
Grid-No.1 Circuit Resistance.	1.5 max	MΩ

[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 18-inch pattern from an RCA-2F21 monoscope, or equivalent.

DIMENSIONAL OUTLINE

FOR PICTURE TUBE UTILIZING BULB J187K WITH MOUNTING LUGS



DIMENSIONS IN INCHES

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