

Picture Tube

PAN-O-PLY-INTEGRAL IMPLOSION PROTECTION
NO ION-TRAP MAGNET REQUIRED

114° MAGNETIC DEFLECTION
LOW-VOLTAGE ELECTROSTATIC FOCUS

Direct Interelectrode Capacitances

Cathode to all other electrodes	5	pF
Grid No.1 to all other electrodes	6	pF
External conductive coating to anode	1500 min—2300 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

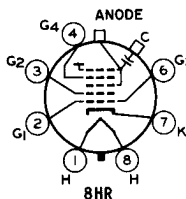
Phosphor	P4—Sulfide Type, Aluminized
For curves, see front of this section.	
Faceplate.	Filterglass
Light transmission at center (approx.)	46%

MECHANICAL

Weight (Approx.)	19 lb
Overall Length	12.656 ± .281 in
Neck Length.	4.375 ± .125 in
Projected Area of Screen	212 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



21FVP4

Peak Heater-Cathode Voltage

Heater negative with respect to cathode:

During equipment warm-up period ≤ 15 seconds . . . 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. 20000 V

Grid-No.4 Voltage^b 100 V

Grid-No.2 Voltage. 400 V

Cathode Voltage. 36 to 78 V

For visual extinction of focused raster

Field Strength 0 to 10 G

Of required adjustable centering magnet

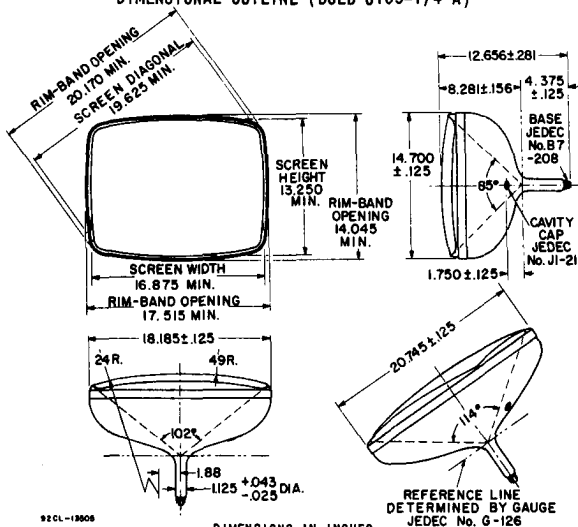
MAXIMUM CIRCUIT VALUE

Grid-No.1 Circuit Resistance 1.5 max M Ω

^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 -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 11.750-inch by 15.500-inch pattern from an RCA-2F21 monoscope, or equivalent.

DIMENSIONAL OUTLINE (BULB J165-1/4 A)



DIMENSIONS IN INCHES