

9QP4A

Picture Tube

LOW-VOLTAGE ELECTROSTATIC FOCUS

70° MAGNETIC DEFLECTION

For Cathode-Drive Service

ELECTRICAL

Direct Interelectrode Capacitances

Cathode to all other electrodes.	6	pF
Grid No.1 to all other electrodes.	4	pF
Heater Current at 4.7 V.	300 ± 15	mA
Heater Warm-up time (Average).	11	s
Electron Gun	Ion-Trap Type	

Requiring External Single-Field Magnet

OPTICAL

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

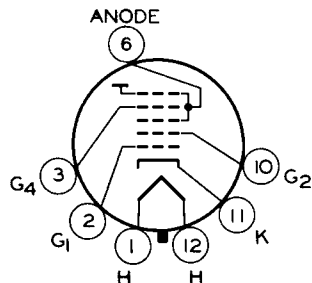
Faceplate, Spherical Filterglass
Light transmission (Approx.) 83%

MECHANICAL

Weight (Approx.)	3.5	lbs
Overall Length	12.750 ± 0.312	in
Neck Length.	6.500 ± 0.187	in
Projected Area of Screen	43	sq in
Base	Small-Shell Duodecal 7-Pin (JEDEC Group 4, Arrangement 2, No.B7-179)	

Basing Designation for BOTTOM VIEW 12AD

- Pin 1—Heater
- Pin 2—Grid No.1
- Pin 3—Grid No.4
- Pin 6—Anode (Grid No.3,
Grid No.5, Screen,
Collector)
- Pin 10—Grid No.2
- Pin 11—Cathode
- Pin 12—Heater



MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

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

Anode Voltage.	{ 7500 max V 3500 min V
Grid-No.4 (Focusing) Voltage	
Positive value	550 max V
Negative value	110 max V
Grid-No.2 Voltage.	330 max V
Cathode Voltage	
Negative peak value.	2 max V
Negative bias value.	0 max V
Positive bias value.	110 max V
Positive peak value.	145 max V
Heater Voltage	{ 5.2 max V 4.2 min V



RADIO CORPORATION OF AMERICA
Electronic Components and Devices
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DATA
7-65

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Peak Heater-Cathode Voltage

Heater negative with respect to cathode:

During equipment warm-up period not exceeding
15 seconds. 220 max V

After equipment warm-up period 165 max V

Heater positive with respect to cathode. 165 max V

TYPICAL OPERATING CONDITIONS FOR CATHODE-DRIVE SERVICE

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

Anode Voltage. 5500 V

Grid-No.4 Voltage. 0 to 400 V

Grid-No.2 Voltage. 200 V

Cathode Voltage. 28 to 52 V

For visual extinction of focused raster

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance 1.5 max MΩ

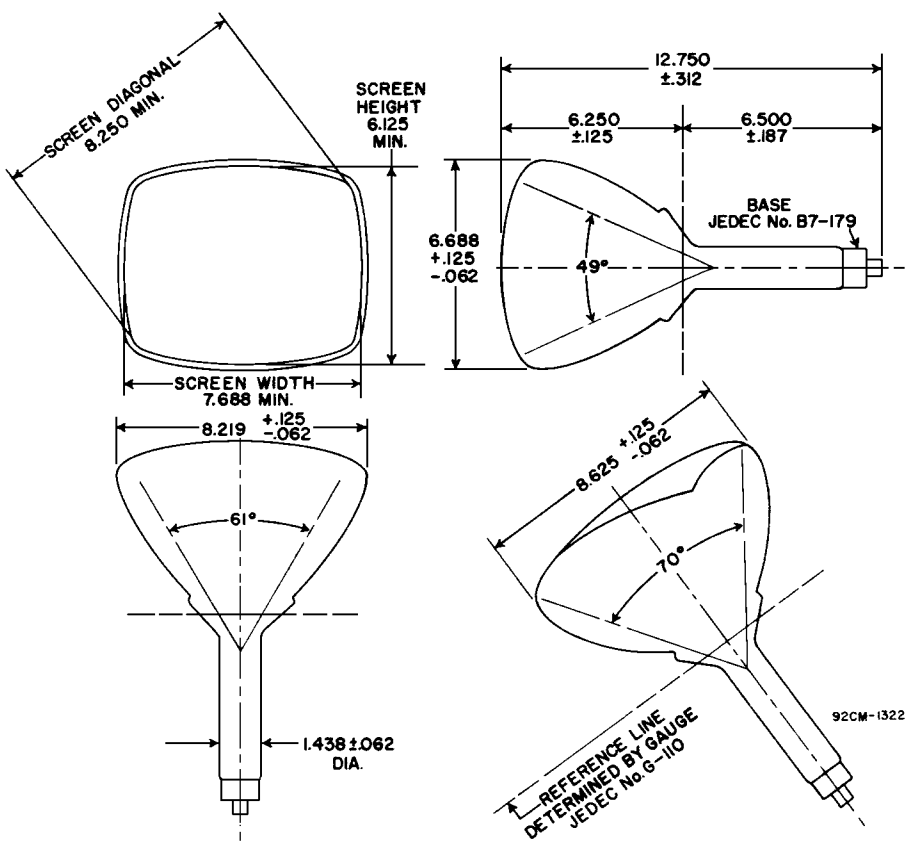
For X-radiation shielding considerations, see sheet

X-RADIATION PRECAUTIONS FOR CATHODE-RAY TUBES

at front of this section

DIMENSIONAL OUTLINE

Bulb J69



DIMENSIONS IN INCHES

