

# Oscillograph-Type Cathode-Ray Tube

8-INCH DIAMETER  
ELECTROSTATIC DEFLECTION

POST-DEFLECTION ACCELERATOR  
ELECTROSTATIC FOCUS

*For General Oscillographic Applications in which Low-Speed or Medium-Speed Recurrent-Wave Phenomena are to be Observed*

## ELECTRICAL

Heater Current at 6.3 V . . . . .	0.6	A
<b>Direct Interelectrode Capacitances (Approx.)</b>		
Grid-No.1 to all other electrodes . . . . .	6	pF
Cathode to all other electrodes . . . . .	7.5	pF
DJ1 to DJ2 . . . . .	3	pF
DJ3 to DJ4 . . . . .	2	pF
DJ1 to all other electrodes . . . . .	9	pF
DJ2 to all other electrodes . . . . .	9	pF
DJ3 to all other electrodes . . . . .	7	pF
DJ4 to all other electrodes . . . . .	7	pF
Focusing Method . . . . .	Electrostatic	
Deflection Method . . . . .	Electrostatic	

## OPTICAL

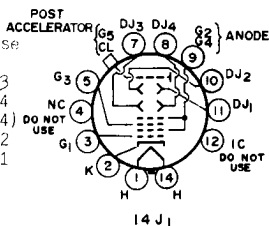
Phosphor . . . . .	P31
Fluorescence and phosphorescence . . . . .	Green
Persistence . . . . .	Medium-Short
Faceplate . . . . .	Clear Glass
Shape . . . . .	Curved, Circular
Minimum Useful Screen Diameter . . . . .	7 in

## MECHANICAL

Operating Position . . . . .	Any
Weight (Approx.) . . . . .	3 lb
Overall Length . . . . .	16.50 ± 0.38 in
Greatest Diameter . . . . .	8.50 in
Bulb . . . . .	.J67A1A
Base . . . . .	Medium-Shell Diheptal 12-Pin (JEDEC No. B12-37)

## TERMINAL DIAGRAM (Bottom View)

- Pin 1 - Heater  
 Pin 2 - Cathode  
 Pin 3 - Grid No.1  
 Pin 4 - No Connection - Do Not Use  
 Pin 5 - Grid No.3  
 Pin 7 - Deflecting Electrode DJ3  
 Pin 8 - Deflecting Electrode DJ4  
 Pin 9 - Anode (Grids No.2 & No.4)  
 Pin 10 - Deflecting Electrode DJ2  
 Pin 11 - Deflecting Electrode DJ1  
 Pin 12 - Internal Connection -  
 Do Not Use  
 Pin 14 - Heater  
 Cap - Post-Accelerator  
 (Grid No.5 & Collector)



## ABSOLUTE-MAXIMUM AND MINIMUM RATINGS

Post-Deflection Accelerator Voltage . . . . .	8000 max	V
Anode Voltage . . . . .	4000 max	V
Grid-No.3 (Focusing-Electrode) Voltage. . . . .	2000 max	V
Grid-No.1 Voltage		
Negative bias value . . . . .	200 max	V
Positive bias value . . . . .	0 max	V
Positive peak value . . . . .	2 max	V
Heater Voltage. . . . .	{ 6.9 max	V
	{ 5.7 min	V
Peak Heater-Cathode Voltage		
Heater negative with respect to cathode . . . . .	125 max	V
Heater positive with respect to cathode . . . . .	125 max	V

## TYPICAL OPERATING VALUES

*Unless otherwise specified all values  
are positive with respect to cathode*

Post-Deflection Accelerator Voltage . . . . .	6000	V
Anode Voltage . . . . .	3000	V
Grid-No.3 (Focusing-Electrode) Voltage. . . . .	750 to 1200	V
Grid-No.1 Voltage . . . . .	-58 to -93	V
For visual cutoff of focused spot		
Deflection Factors		
DJ1 and DJ2 . . . . .	107 to 129	V (dc)/in
DJ3 and DJ4 . . . . .	85 to 101	V (dc)/in

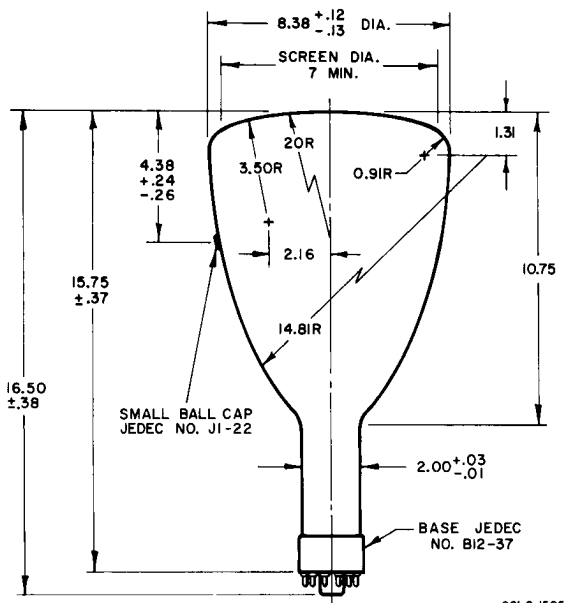
## MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance. . . . .	1.5 max	M $\Omega$
Resistance in any Deflection Electrode Circuit <sup>a</sup> . . . . .	5 max	M $\Omega$

<sup>a</sup> It is recommended that the deflecting-electrode-circuit resistances be approximately equal.



## DIMENSIONAL OUTLINE



92LS-1505

## DIMENSIONS IN INCHES

Center line of bulb will not deviate more than  $2^\circ$  in any direction from the perpendicular erected at the center of bottom of the base.

The plane through the tube axis and pin 5 may vary from the trace produced by DJ1 and DJ2 by an angular tolerance (measured about the tube axis) of  $\pm 10^\circ$ . Angle between DJ1 - DJ2 trace and DJ3 - DJ4 trace is  $90^\circ \pm 3^\circ$ .

DJ1 and DJ2 are nearer the screen; DJ3 and DJ4 are nearer the base. With DJ1 positive with respect to DJ2; the spot will be deflected toward pin 5; likewise, with DJ3 positive with respect to DJ4, the spot will be deflected toward pin 2.

