



5527

# ICONOSCOPE

ELECTROSTATIC FOCUS

ELECTROSTATIC DEFLECTION

5527

### General:

Heater, for Unipotential Cathode:

Voltage . . . . .	6.3 ± 10%	. . . . .	ac or dc volts
Current . . . . .	0.6	. . . . .	amp

Direct Interelectrode Capacitances (Approx.):▲

Grid No.1 to All Other Electrodes . . . . .	7.5	. . . . .	μmf
Signal Electrode to All Other Electrodes and External Shield . . . . .	5	. . . . .	μmf

Focusing Method . . . . . Electrostatic

Deflection Method . . . . . Electrostatic

Image Size (4 x 3 aspect ratio) . . . . . 1.4" Diagonal

Overall Length . . . . . 9" ± 1/4"

Seated Length . . . . . 8-1/4" ± 1/4"

Maximum Diameter . . . . . 2-1/4"

Mounting Position . . . . . Any

Cap . . . . . Recessed Small Cavity

Base . . . . . Medium-Shell Diheptal 12-Pin

Basing Designation for BOTTOM VIEW . . . . . 14L

Pin 1 - Heater

Pin 2 - Cathode

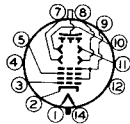
Pin 3 - Grid No.1

Pin 4 - Internal  
Connection -  
Do Not Use

Pin 5 - Grid No.3

Pin 7 - Deflecting  
Electrode  
DJ3

Pin 8 - Deflecting  
Electrode  
DJ4



DIRECTION OF LIGHT:  
INTO END OF BULB

Pin 9 - Anode No.2,  
Grid No.4

Pin 10 - Deflecting  
Electrode  
DJ2

Pin 11 - Deflecting  
Electrode  
DJ1

Pin 12 - Internal  
Connection -  
Do Not Use

Pin 14 - Heater  
Cap - Signal  
Electrode

### Maximum Ratings, Design-Center Values:

SIGNAL-ELECTRODE VOLTAGE . . . . . 900 max. . . . . volts

GRID-No.4 & GRID-No.2 VOLTAGE . . . . . 900 max. . . . . volts

GRID-No.3 VOLTAGE . . . . . 450 max. . . . . volts

GRID-No.1 VOLTAGE:

Negative bias value . . . . . 100 max. . . . . volts

Positive bias value . . . . . 0 max. . . . . volts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect  
to cathode . . . . . 125 max. . . . . volts

Heater positive with respect  
to cathode . . . . . 10 max. . . . . volts

AMBIENT TEMPERATURE . . . . . 40 max. . . . . °C

MOSAIC ILLUMINATION . . . . . 50 max. foot-candles

▲ With external shield.

5527



5527

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### Typical Operation:

Signal-Electrode Voltage . . . . .	800	. . . . .	volts
Grid-No.4 & Grid-No.2 Voltage . . .	800	. . . . .	volts
Grid-No.3 Voltage for Focus . . .	125 to 250	. . . . .	volts
Grid-No.1 Voltage . . . . .	Adjust for best picture		
Max. Grid-No.1 Voltage for Picture Cutoff . . . . .	-75	. . . . .	volts
Max. Deflecting Voltages (Peak-to-Peak)*:			
DJ <sub>1</sub> & DJ <sub>2</sub> (Vertical) . . . . .	120	. . . . .	volts
DJ <sub>3</sub> & DJ <sub>4</sub> (Horizontal) . . . . .	100	. . . . .	volts
Min. Peak-to-Peak Blanking Voltage	30	. . . . .	volts
Signal-Output Current (Approx.) . .	0.025	. . . . .	μamp
Output Resistor (Approx.) . . . . .	1.0	. . . . .	megohm

### Maximum Circuit Values:

Grid-No.1-Circuit Resistance . . .	1.0 max.	. . . . .	megohm
Resistance in any Deflecting- Electrode Circuit <sup>□</sup> . . . . .	5.0 max.	. . . . .	megohms

\* To scan picture of 1.4" diagonal (4 x 3 aspect ratio).

□ It is recommended that the deflecting-electrode-circuit resistances be approximately equal.

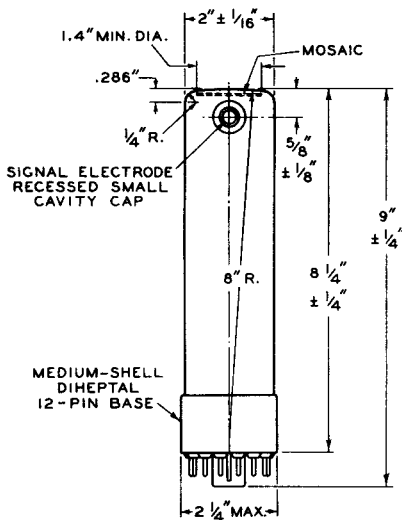
The SPECTRAL SENSITIVITY CHARACTERISTIC curve  
for the 5527 is the same as that shown  
for Type 1850-A.



5527

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5527



☉ 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 BASE-PLUG KEY MAY VARY FROM THE PLANE THROUGH THE TUBE AXIS AND SIGNAL ELECTRODE TERMINAL BY AN ANGULAR TOLERANCE (MEASURED ABOUT THE TUBE AXIS) OF  $20^\circ$ . SIGNAL ELECTRODE TERMINAL IS ON SAME SIDE AS BASE-PLUG KEY.

DJ1 AND DJ2 ARE NEARER THE MOSAIC; DJ3 AND DJ4 ARE NEARER THE BASE. WITH DJ1 POSITIVE WITH RESPECT TO DJ2, THE SPOT IS DEFLECTED TOWARD PIN 5. WITH DJ3 POSITIVE WITH RESPECT TO DJ4, THE SPOT IS DEFLECTED TOWARD PINS 1 AND 2. WITH DJ1 AND DJ2 USED FOR VERTICAL DEFLECTION, THE VERTICAL AXIS OF THE SCANNED AREA OF THE MOSAIC IS PARALLEL TO VERTICAL PLANE THROUGH PINS 5 AND 12 WITHIN  $\pm 15^\circ$ . THE ANGLE BETWEEN THE SCANNING DIRECTION PRODUCED BY DJ3 AND DJ4 AND THE SCANNING DIRECTION PRODUCED BY DJ1 AND DJ2 IS  $90^\circ \pm 3^\circ$ .

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