



5527

ICONOSCOPE

ELECTROSTATIC FOCUS

ELECTROSTATIC DEFLECTION

5527

General:

Heater, for Unipotential Cathode:

Voltage $6.3 \pm 10\%$ ac or dc volts

Current 0.6 amp

Direct Interelectrode Capacitances (Approx.):[▲]Grid No.1 to All Other Electrodes 7.5 μf Signal Electrode to All Other Electrodes
and External Shield 5 μf

Focusing Method Electrostatic

Deflection Method Electrostatic

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

Overall Length 9" $\pm 1/4$ "Seated Length 8-1/4" $\pm 1/4$ "

Maximum Diameter 2-1/4"

Mounting Position Any

Cap Recessed Small Cavity

Base Medium-Shell Diheptal 12-Pin

Basing Designation for BOTTOM VIEW 14L

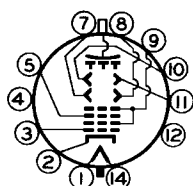
Pin 1-Heater

Pin 2-Cathode

Pin 3-Grid No.1

Pin 4-Internal
Connection -
Do Not Use

Pin 5-Grid No.3

Pin 7-Deflecting
Electrode
DJ3Pin 8-Deflecting
Electrode
DJ4DIRECTION OF LIGHT:
INTO END OF BULBPin 9-Anode No.2,
Grid No.4Pin 10-Deflecting
Electrode
DJ2Pin 11-Deflecting
Electrode
DJ1Pin 12-Internal
Connection-
Do Not UsePin 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. voltsHeater positive with respect
to cathode 10 max. voltsAMBIENT TEMPERATURE 40 max. $^{\circ}\text{C}$

MOSAIC ILLUMINATION 50 max. foot-candles

[▲] With external shield.

APRIL 15, 1947

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA

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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 ₁ & DJ ₂ (Vertical)	120		volts
DJ ₃ & DJ ₄ (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 [□]	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.

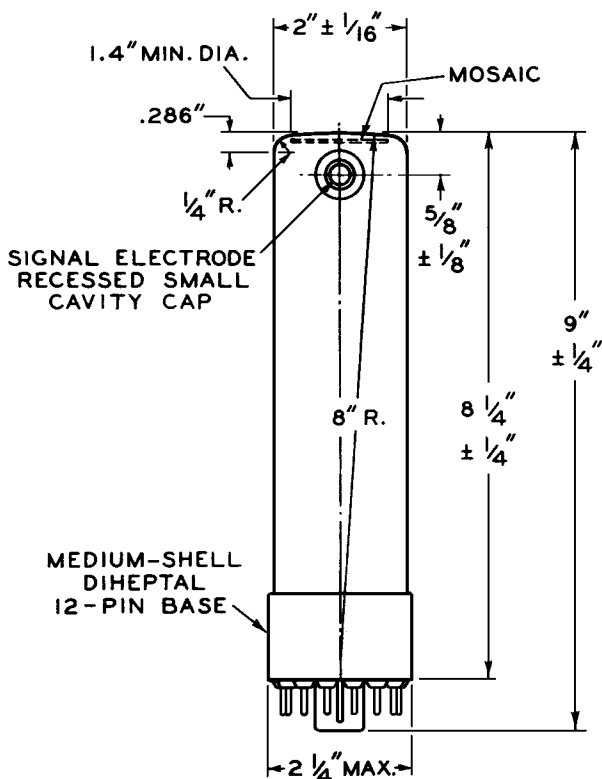
The SPECTRAL SENSITIVITY CHARACTERISTIC curve
for the 5527 is the same as that shown
for Type 1850-A.



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CL OF BULB WILL NOT DEVIATE MORE THAN 2° 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° . 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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