GENERAL:

Heater, for Unipotential Cathode:
- Voltage: 6.3 ± 10% ac or dc volts
- Current: 0.6 amp

Direct Inter-electrode 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" ± 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

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.

APRIL 15, 1947
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
TENTATIVE DATA
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)*:
  DJ1 & DJ2 (Vertical) .... 120 .... volts
  DJ3 & DJ4 (Horizontal) .... 100 .... volts
Min. Peak-to-Peak Blanking Voltage 30 .... volts
Signal-Output Current (Approx.) .... 0.025 .... \mu amp
Output Resistor (Approx.) .... 1.0 .... megohm

Maximum Circuit Values:

Grid-No.1-Circuit Resistance .... 1.0 max.... megohm
Resistance in any Deflecting-
  Electrode Circuit\(^0\) .... 5.0 max.... megohms

* To scan picture of 1.4* diagonal (4 x 3 aspect ratio).
\(^0\) 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.
$\phi$ 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 $\pm15^\circ$. 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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