CHARACTERISTICS

GENERAL DATA

Focusing Method .................................. Electrostatic
Deflection Method .................................. Magnetic
Deflection Angles (Approx.)
  Horizontal .................................. 101 Degrees
  Diagonal .................................. 114 Degrees
  Vertical .................................. 86 Degrees
Phosphor .................................. Aluminized P4
Fluorescence .................................. White
Persistence .................................. Medium Short
Faceplate .................................. Gray Filter Glass
Light Transmittance (Approx.) ............... 78 Percent

ELECTRICAL DATA

Heater Voltage .................................. 6.3 Volts
Heater Current .................................. 0.60 ± 5 % Ampere
Heater Warm-up Time1 .......................... 11 Seconds
Direct Inter-electrode Capacitances (Approx.)
  Cathode to all Other Electrodes .................. 5 pf
  Grid No. 1 to all Other Electrodes ............... 6 pf
  External Conductive Coating to Anode2 .......... 1900 pf Max.
  .................................. 1400 pf Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions
  (Maximum Assured)
    Height .................................. 12 Inches
    Width .................................. 15½ Inches
    Diagonal .................................. 17¾ Inches
    Area .................................. 172 Sq. Inches
Neck Length .................................. 4¾ ± ¼ Inches
Overall Length .................................. 11¾ ± ¾ Inches
Bulb .................................. J1-49A
Bulb Contact (Recessed Small Cavity Cap) .... J1-21
Base .................................. B6-214
Basing .................................. 7FA
Weight (Approx.) ............... 14 Pounds

RATINGS

MAXIMUM RATINGS (Design Maximum Values)

Cathode Drive Service3 .......................... 20,000 Volts dc
Maximum Anode Voltage ....................... 12,000 Volts dc
Minimum Anode Voltage ....................... 500 to +1100 Volts dc
Grid No. 4 Voltage (Focusing Electrode) .... 55 Volts dc
Grid No. 2 Voltage ............................. 0 Volt dc
Cathode Voltage
  Negative Bias Value .......................... 2 Volts dc
  Negative Peak Value .......................... 100 Volts dc
  Positive Bias Value .......................... 140 Volts dc
  Positive Peak Value .......................... 410 Volts dc
Peak Heater-Cathode Voltage
  Heater Negative with Respect to Cathode During
    Warm-up Period Not to Exceed 15 Seconds ........ 410 Volts dc
  After Equipment Warm-up Period ............. 180 Volts dc
  Heater Positive with Respect to Cathode .... 180 Volts dc

TYPICAL OPERATING CONDITIONS

Cathode Drive Service3 .......................... 16,000 Volts dc
Anode Voltage .................................. 0 to +400 Volts dc
Grid No. 4 Voltage for Focus .................. 45 Volts dc
Grid No. 2 Voltage2 ............................. 35 to 50 Volts dc
Cathode Voltage Required for Cutoff4 ........ 35 to 50 Volts dc

SYLVANIA

QUICK REFERENCE DATA

Television Picture Tube
19" Direct Viewed
Rectangular Glass Type
Gray Filter Glass
Aluminized Screen
Neck Length 4½"
Electrostatic Focus
114° Magnetic Deflection
No Ion Trap
External Conductive Coating
6.3 Volts, 600 ma Heater
Low Grid No. 2 Voltage

SYLVANIA ELECTRONIC TUBES
A Division of Sylvania Electric Products Inc.
PICTURE TUBE OPERATIONS

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PAGE 1 OF 2
File Under
TELEVISION PICTURE TUBES
CIRCUIT VALUES

Grid No. 1 Circuit Resistance ........................................ 1.5 Megohms Max.

NOTES:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.
2. External conductive coating must be grounded.
3. Voltages are positive with respect to Grid No. 1 unless indicated otherwise.
4. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more positive.

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.

OUTLINE

DIAGRAM NOTES:

1. Reference line is determined by plane C-C' JEDEC No. 126 Reference Gauge when the gage is seated against the bulb.
2. Base Pin No. 7 aligns with anode contact (J1-21) within 30°.