3ED2

Oscilloscope Tube

ELECTROSTATIC FOCUS. ELECTROSTATIC DEFLECTION.

DATA

GENERAL:
Heater: Voltage . . . . 6.3 . . . . a.c. or d.c. volts.
  Current . . . . 0.6 . . . . amp.
Direct Inter-electrode Capacitances:
  Modulator to all other electrodes . . . . 12μμf.
  Each X Plate to all other electrodes . . . . 16μμf.
  Each Y Plate to all other electrodes . . . . 11μμf.
  Deflector Plates X1 to X2 . . . . 2.5μμf.
  Deflector Plates Y1 to Y2 . . . . 2.5μμf.
Screen:
  Fluorescence . . . . . . Blue.
  Afterglow . . . . . . Yellow.
  Persistence of Afterglow . . . . Long
  (10 sec. min./100 sec. max. for 1% initial brightness).
Focussing Method . . . . Electrostatic.
Deflecting Method . . . . Electrostatic.
Overall Length . . . . . . . 292 ± 9 mm.
Greatest Diameter of Bulb . . . . 77.8 mm.
Minimum Useful Screen Diameter . . . . 69.0 mm.
Mounting Position . . . . Any.
Base . . . . . . . . . . . . . . . . . . 11 Pin Magnal.

Pin 1—Heater.
Pin 2—No connection.
Pin 3—X1.
Pin 4—Anode 2.
Pin 5—No connection.
Pin 6—Y2.
Pin 7—Anode 1 and 3.
Pin 8—X2.
Pin 9—Y1.
Pin 10—Modulator.
Pin 11—Heater and Cathode.

Typical Operating Conditions:
Anode 1 and 3 (2500 volts max.)
Anode 2 . . . . . . 1000 volts 200/280 volts
Modulator volts for cut-off . . . . 2000 volts 400/560 volts
−50 volts max. −100 volts max.

Deflection Sensitivity:
X Plate . . . . . . . . mm/volt 0.26 to 0.4 0.13 to 0.2
Y Plate . . . . . . . . mm./volt 0.3 to 0.45 0.15 to 0.22
ALL SIZES IN MILLIMETRES.

Note 1. When viewing the screen with the tube positioned such that the spigot key is uppermost, a positive voltage applied to terminal X1 will deflect the spot to the left and a positive voltage applied to the terminal Y1 will deflect the spot upwards.

Note 2. The angle between the trace produced by X1 and X2 and the trace produced by Y1 and Y2 is 90° ± 3°.

Note 3. The undeflected focused spot will fall within a circle having a 7 m.m. radius concentric with the centre of the tube face.

Note 4. The angle between the trace produced by the deflector plates Y1, Y2 and a plane through the tube axis and Pin No. 6, may vary by an angular tolerance of 10°.