Oscillograph Tube

ELECTROSTATIC FOCUS

ELECTROSTATIC DEFLECTION

DATA

General:
Heater, for Unipotential Cathode:
Voltage (AC or DC) ........................................ 6.3 volts
Current .................................................. 0.6 ± 10% amp

Direct Interelectrode Capacitances (Approx.):
Grid No.1 to all other electrodes ........... 7.5 µf
Cathode to all other electrodes .......... 4.3 µf
Deflecting electrode DJ₁ to deflecting
electrode DJ₂ ......................................... 5.2 µf
Deflecting electrode DJ₃ to deflecting
electrode DJ₄ ......................................... 7 µf
DJ₁ to all other electrodes ............... 10.1 µf
DJ₂ to all other electrodes ............... 7.5 µf
DJ₃ to all other electrodes ............... 8.1 µf
DJ₄ to all other electrodes ............... 9.2 µf

Faceplate, Spherical .................................. Clear Glass
Phosphor (For Curves, see front of this Section) .... P1
Fluorescence ........................................... Yellowish-Green
Phosphorescence ...................................... Yellowish-Green
Persistence ............................................ Medium

Focusing Method ...................................... Electrostatic
Deflection Method ................................... Electrostatic
Overall Length ....................................... 9-1/8" ± 1/4"
Greatest Diameter of Bulb .................... 3" ± 1/16"
Minimum Useful Screen Diameter .......... 2-3/4"

Useful Scan (Centered with respect to tube face):
By deflecting electrodes DJ₁ & DJ₂ ........... 2-3/4"
By deflecting electrodes DJ₃ & DJ₄ ........... 2-1/4"
Operating Position .................................... Any
Bulb ..................................................... J24P1
Base. Small-Shell Duodecal 12-Pin (JEDEC Group 4, No.B12-43)
Basing Designation for BOTTOM VIEW ........ 12E

Pin 1–Heater
Pin 2–Grid No.1
Pin 3–Cathode
Pin 4–Grid No.3
Pin 5–Internal Connection—
Do Not Use
Pin 6–Deflecting Electrode
DJ₁
Pin 7–Deflecting Electrode
DJ₃
Pin 8–Ultor
(Grid No.2, Collector)
Pin 9–Deflecting Electrode
DJ₂
Pin 10–Deflecting Electrode
DJ₄
Pin 11–Internal Connection—
Do Not Use
Pin 12–Heater

DJ₁ and DJ₂ are nearer the screen
DJ₃ and DJ₄ are nearer the base

RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.
Maximum and Minimum Ratings, Design-Center Values:

ULTOR VOLTAGE: {2750 max. volts
ULTOR INPUT (AVERAGE): 6 max. watts
GRID-No.3 VOLTAGE: 1100 max. volts

GRID-No.1 VOLTAGE:
Negative-bias value: 200 max. volts
Positive-bias value: 0 max. volts
Positive-peak value: 2 max. volts

PEAK VOLTAGE BETWEEN ULTOR AND ANY DEFLECTING ELECTRODE: 550 max. volts

PEAK HEATER-CATHODE VOLTAGE:
Heater negative with respect to cathode:
During equipment warm-up period not exceeding 15 seconds: 410 max. volts
After equipment warm-up period: 125 max. volts
Heater positive with respect to cathode: 125 max. volts

Equipment Design Ranges:

For any ultor voltage ($E_{c4}$) between 500 and 2750 volts

Grid-No.3 Voltage for focus: 16.5% to 31% of $E_{c4}$ volts

Negative Grid-No.1 Voltage for visual extinction of undeflected spot: 2.8% to 6.7% of $E_{c4}$ volts

Grid-No.3 Current for any operating condition: -15 to +10 $\mu$A

Deflection Factors:
DJ1 & DJ2: 73 to 99 v dc/in. /kv of $E_{c4}$
DJ3 & DJ4: 26 to 35 v dc/in. /kv of $E_{c4}$