HIGH VACUUM CATHODE-RAY TUBE

ELECTROSTATIC DEFLECTION AND FOCUSING

NO. 1 PHOSPHOR GREEN FLUORESCENT SCREEN MEDIUM PERSISTENCE

HEATER 6.3 VOLTS (± 10%) 0.6 AMPERE AC OR DC

COATED UNIPOTENTIAL CATHODE

GLASS BULB

SMALL SHELL MAGNAT 11 PIN BASE

RATINGS

MAXIMUM ANODE NO. 2 VOLTAGE (HIGH VOLTAGE ELECTRODE) 1100 VOLTS
MAXIMUM ANODE NO. 1 VOLTAGE (FOCUSING ELECTRODE) 550 VOLTS
GRID VOLTAGE (CONTROL ELECTRODE) NEVER POSITIVE
MAXIMUM PEAK VOLTAGE BETWEEN ANODE NO. 2 AND ANY DEFLECTOR 660 VOLTS
MAXIMUM DC HEATER CATHODE POTENTIAL 125 VOLTS
MAXIMUM GRID CIRCUIT RESISTANCE 1.5 MEGOHMS
MAXIMUM IMPEDANCE OF ANY DEFLECTOR CIRCUIT AT HEATER SUPPLY FREQUENCY 1.0 MEGOHM

*MAXIMUM RATINGS ARE ABSOLUTE VALUES

DIRECT INTERELECTRODE CAPACITANCES (APPROX.)

CONTROL ELECTRODE TO ALL OTHER ELECTRODES 8.0 μf
CATHODE TO ALL OTHER ELECTRODES 5.5 μf
D1 TO D2 0.6 μf
D3 TO D4 1.1 μf
D1 TO ALL OTHER ELECTRODES 8.5 μf
D3 TO ALL OTHER ELECTRODES 9.0 μf
D1 TO ALL OTHER ELECTRODES EXCEPT D2 8.0 μf
D2 TO ALL OTHER ELECTRODES EXCEPT D1 4.6 μf
D3 TO ALL OTHER ELECTRODES EXCEPT D4 7.5 μf
D4 TO ALL OTHER ELECTRODES EXCEPT D3 3.6 μf

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

ANODE NO. 2 VOLTAGE 500 1000 VOLTS
ANODE NO. 1 VOLTAGE FOR FOCUS
AT 75% OF GRID VOLTAGE CUT-OFF (APPROX.) 125 250 VOLTS
GRID VOLTAGE FOR CUT-OFF -30E -60E VOLTS
DEFLECTION SENSITIVITY:
D1 AND D2 0.220 0.110 MM/VOLT DC
D3 AND D4 0.260 0.130 MM/VOLT DC
DEFLECTION FACTOR:
D1 AND D2 115 230 VOLTS DC/IN
D3 AND D4 98 196 VOLTS DC/IN

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SPOT POSITION AND TEST CONDITIONS

THE UNDEFLECTED FOCUSED SPOT FALLS WITHIN A 10 MM. SQUARE CENTERED ON THE TUBE FACE.

TEST CONDITIONS ARE:

- ANODE NO. 2 VOLTAGE: 1000 VOLTS
- ANODE NO. 1 VOLTAGE
- GRID VOLTAGE: ADJUSTED FOR FOCUS NEAR CUT-OFF
- DEFLECTOR RESISTORS (CONNECTED TO ANODE NO. 2): 1 MEGOHM EACH

NOTE: SHIELD TUBE FROM ALL STRAY FIELDS.

A. WHEN THE HEATER IS OPERATED AT A NEGATIVE POTENTIAL WITH RESPECT TO THE CATHODE THEN THE CATHODE RETURN SHOULD BE MADE AT THE CENTER TAP OF THE FILAMENT TRANSFORMER.

B. USE OF LESS THAN 600 VOLTS RESULTS IN DECREASED BRILLIANCE.

C. CERTAIN TUBES MAY REQUIRE ADJUSTMENT OF +20% TO -45% WITH GRID VOLTAGE BETWEEN ZERO AND CUT-OFF.

D. THE VISUAL EXTINCTION OF A FOCUSED SPOT.

E. THE GRID SUPPLY SHOULD BE VARIABLE TO ± 60%.

F. VALUES SUBJECT TO VARIATION OF ± 20%.

DEFLECTOR LOCATIONS:

- D1 AND D2 NEAREST TO SCREEN
- D3 AND D4 NEAREST TO BASE
- D1 SAME SIDE OF TUBE AS PIN NO. 4
- D3 SAME SIDE AS PIN NO. 1

BOTTOM VIEW

1. HEATER
2. CATHODE
3. DEFLECTOR NO. 1 (D1)
4. ANODE NO. 1
5. NO CONNECTION
6. DEFLECTOR NO. 4 (D4)
7. ANODE NO. 2
8. DEFLECTOR NO. 2 (D2)
9. DEFLECTOR NO. 3 (D3)
10. GRID
11. HEATER

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