

DIAMETER 5" NOMINAL

5T03A

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# Radar Tube

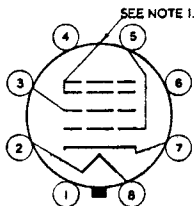
MAGNETIC FOCUS. MAGNETIC DEFLECTION

DATA

**GENERAL :**

|   |               |                      |
|---|---------------|----------------------|
| Heater : Voltage . . . . .                    | 6.3 . . . . . | a.c. or d.c. volts   |
| Current . . . . .                             | 0.6 . . . . . | amp.                 |
| Direct Inter-electrode Capacitances (Approx.) |               |                      |
| Modulator to All Other Electrodes . . . . .   |               | 10.5 $\mu$ f.        |
| Anode 1 to All Other Electrodes . . . . .     |               | 6 $\mu$ f.           |
| Cathode to All Other Electrodes . . . . .     |               | 9 $\mu$ f.           |
| Screen :                                      |               |                      |
| Fluorescence . . . . .                        |               | Orange.              |
| Afterglow . . . . .                           |               | Orange.              |
| Persistence of Afterglow . . . . .            |               | Long.                |
| Focusing Method . . . . .                     |               | Magnetic.            |
| Deflection Method . . . . .                   |               | Magnetic.            |
| Deflection Angle (Approx.) . . . . .          |               | 53°                  |
| Overall Length . . . . .                      |               | 280 $\pm$ 6 mm.      |
| Greatest Diameter of Bulb . . . . .           |               | 125.5 $\pm$ 2 mm.    |
| Minimum Useful Screen Diameter . . . . .      |               | 108 mm.              |
| Mounting Position . . . . .                   |               | Any.                 |
| Anode Cap . . . . .                           |               | Recessed Small Ball. |
| Base . . . . .                                |               | International Octal. |

- Pin 1—No connection.
- Pin 2—Heater.
- Pin 3—Anode 1.
- Pin 4—No connection.



- Pin 5—Modulator.
- Pin 6—No connection.
- Pin 7—Cathode.
- Pin 8—Heater.
- Cap—Final Anode.

**Maximum Ratings :**

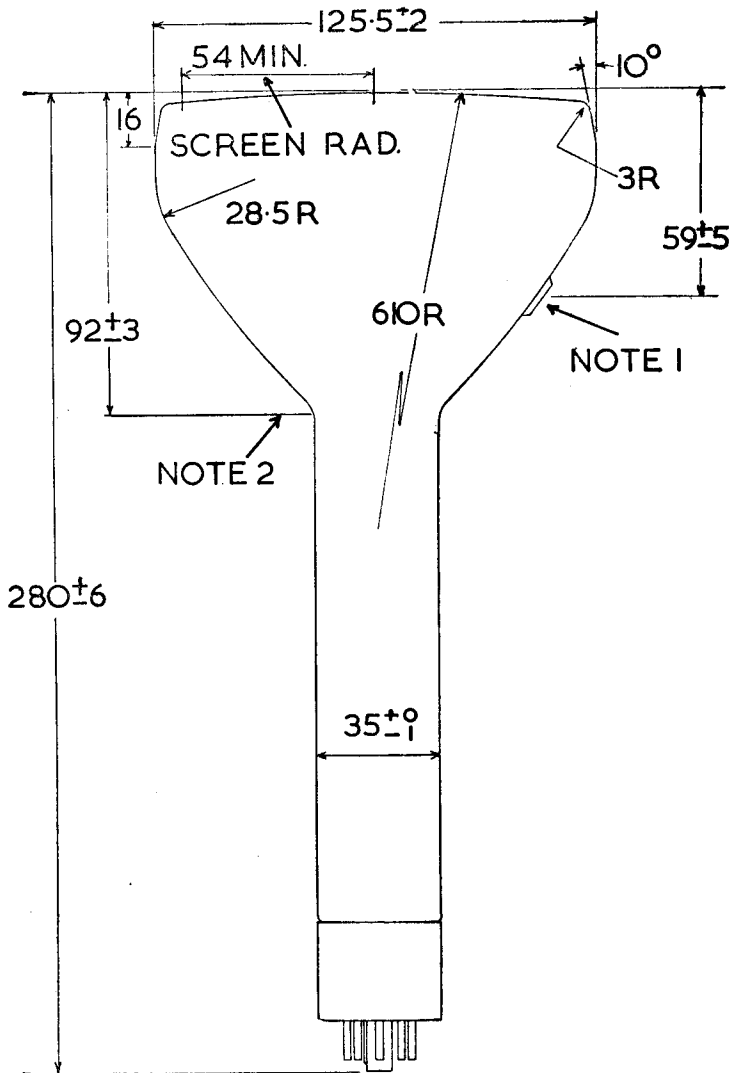
|   |                  |
|---|------------------|
| Final Anode Voltage . . . . .                     | 8000 max. volts. |
| Anode 1 Voltage . . . . .                         | 700 max. volts.  |
| Modulator Voltage :                               |                  |
| Negative bias value . . . . .                     | 125 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 . . . . . | 125 max. volts.  |

**Typical Operation :**

|  |            |                   |
|--|------------|-------------------|
| Anode Voltage . . . . .                    | 4000       | 7000 volts.       |
| Anode 1 Voltage . . . . .                  | 250        | 250 volts.        |
| Modulator Voltage for cut-off . . . . .    | -25 to -70 | -25 to -70 volts. |
| Focusing-Coil current—See Note 3 . . . . . | 420        | 520 A.T.          |
| Spot Position . . . . .                    | See Note 4 |                   |

Note 3. Focusing Coil, positioned with centre line of air gap approximately 70 mm. from reference line (see Outline Drawing).

Note 4. The centre of the undeflected unfocused spot will fall within a circle having 9 mm. radius concentric with the centre of the tube face.



ALL SIZES IN MILLIMETRES

Note 1. The plane through the tube axis and Pin No. 5 may vary from the plane through the tube axis and anode terminal by an angular tolerance (measured about the tube axis) of  $10^\circ$ . Anode terminal is on the same side of tube as Pin No. 5.

Note 2. Reference line is determined by position where gauge 36 mm. I.D. and 50 mm. long will rest on bulb cone.