



### PRELIMINARY SPECIFICATIONS

JUNE 1968

### GENERAL DESCRIPTION

itran DG12C numerical indicator tubes provide a highly efficient display of digits and characters at extremely low operating voltages. These single-plane tube read-outs offer low power consumption with rugged construction, and an exceptionally wide viewing angle with unsurpassed brightness and clarity.

The numerical figures, mathematical symbols and characters are composed of highly efficient green phosphor-coated segments, energized by electrons emitted from a direct heated super fine cathode. Particularly suited to decimally coded applications such as basic counters and computer circuits, item DG12C indication tubes display decimal points, prime, and numerical figures "0" through "9".

- Uni-Plane Design
- Sharp, Bright Green Characters

- Low Voltage
- Low Power Consumption

# **ELECTRICAL CHARACTERISTICS**

| Cathode                |  | Direct heating   |
|------------------------|--|------------------|
| Heater current         |  | 95 mA            |
| Heater voltage at 95mA |  | 0.85 Volts ±10%  |
| Color of figures       |  | Green            |
| Brightness             |  | 80 Foot-lamberts |

# **ABSOLUTE MAXIMUM RATINGS**

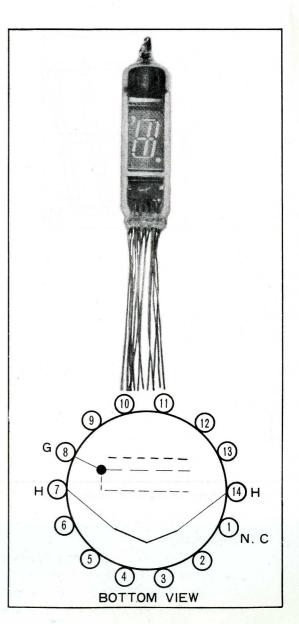
| Maximum voltage, phosphor segments              | 27 Volts       |
|---|----------------|
| Maximum pulse voltage upon phosphor segments    | 50 Volts       |
| Minimum voltage, phosphor segments              | -27 Volts      |
| Maximum screen grid (control grid)              | 25 Volts       |
| Maximum pulse voltage upon screen grid (control | grid) 30 Volts |
| Minimum screen grid (control grid)              | -30 Volts      |
| Maximum heater current                          | 105 mA         |
|   |                |

### **AVERAGE RATINGS**

| Cathode current (at 25 Volts of phosphor |              |
|--|--------------|
| segment and grid voltage)                | 10 mA        |
| Numerical phosphor segments current      | 1 mA         |
| Current to each symbol, ""," and ","     | 0.2 mA       |
| Ambient temperature                      | -40 to +70°C |
|  |              |

### TYPICAL OPERATION

| Voltage, phosphor segments                 | 25 Volts |
|--|----------|
| Screen grid (control grid)                 | 20 Volts |
| Screen grid (control grid) cut off voltage | -4 Volts |
| Phosphor segments cut off voltage          | 0 Volts  |
|  | ,        |



### MECHANICAL DESIGN

# EXTERNAL DIMENSIONS

Overall Length
Diameter of glass tube
Maximum viewing angle

Net weight Mounting position Base 53mm 13mm 120 degree 8. 2 gr Optional

cf. drawings

CHARACTER DIMENSIONS

Numericals

Height: 10.8 mm, Width: 7.2 mm

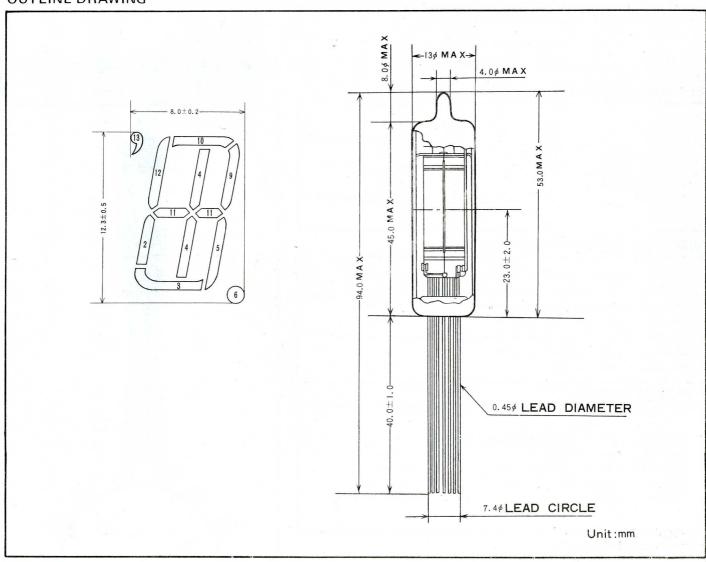
Decimal point Prime Diameter: 1. 4 mm Height: 2. 55mm,

Width: 1.3 mm

CHARACTER OUTLINES (actual size)

0123456789'

# **OUTLINE DRAWING**



For further information and prices, please contact:

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