ELECTRONIC INNOVATIONS IN ACTION

DISPLAY DEVICES

# —PRODUCT INFORMATION—

# Low Voltage Indicator Tube

**Y-1938**

**TENTATIVE SPECIFICATION SHEET**

The Y-1938 is a low voltage seven bar segment vacuum cathodoluminescent readout tube which provides bright, sharp display of alphanumeric symbols at low drive and power levels. Symbols are displayed in type Y-1938 by excitation of phosphor-screened segments, which are energized by electrons emitted by a directly heated common cathode.

**LOW POWER** - Typical operation for high brightness is 25 volts for anode and 1.5 Vac or Vdc at 42 mA for the cathode.

**FAST SPEED** - Operates in the very high speed range through the use of low presistence phosphor.

**BRIGHTNESS** - Displays a highly visible blue-green color approximately 200 foot-lamberts.

**WIDE ANGLE VIEWING** - Single plane character formation with no parallax problems and up to 150° viewing range.

**RELIABILITY** - Long life construction that uses a single plane and thick film technology combined with the low total power requirements of less than 200 milliwatts.

**CHARACTER SIMPLIFICATION** - Only one type to display digits (0-9), letters - A, C, E, F, G, H, I, J, L, O, P, S, U, Y.

**COMPACT SIZE** - Standard miniature T6½ bulb, two inches maximum height for minimum space requirements.

## TYPICAL SPECIFICATIONS

### ELECTRICAL

| | | |
|---|---|---|
| Filament Voltage | 1.5 | Vac or Vdc |
| Filament Current | 42 | mA |
| Filament Heating Power | 72 | mW |
| Anode Excitation Voltage (Max.) | 55 | Vdc |
| Anode Excitation Voltage (Typical) | 25 | Vdc |
| Anode Current/Segment at 25 Volts | 550 | μa |
| Maximum Total Anode Power Dissipation at 25 Volts | 100 | mW |

### OPTICAL

| | | |
|---|---|---|
| Light Output (at 25 Vdc Anode Voltage | 200 | F-L |
| Character Dimension | | |
| Height | 0.570 | Inch |
| Width | 0.360 | Inch |
| Character Color | Blue Green | |
| Phosphor | P15 | |
| Viewing Angle | Single-Plane | |
| Character Orientation | Parallel to Plane through Pins 3 & 7 | |

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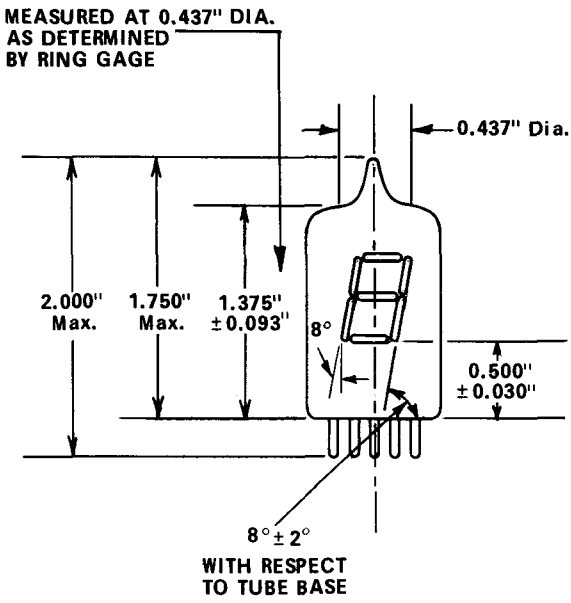
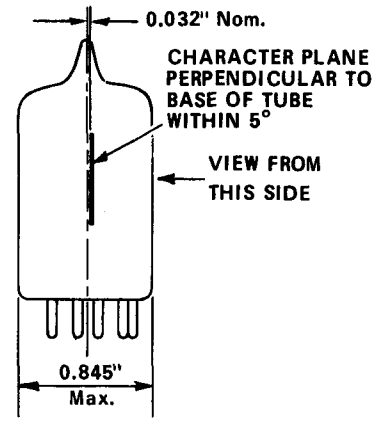
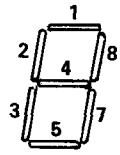
GENERAL ELECTRIC

# MECHANICAL SPECIFICATIONS

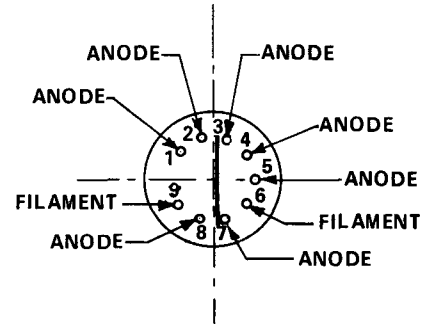



PIN CONNECTIONS
AND ANODE
CONFIGURATION

FRONT VIEW




PIN CONNECTIONS
BOTTOM VIEW

CHARACTER SIZE:
0.570" X 0.360"
SLANTED 8°

TUBE PRODUCTS DEPARTMENT

GENERAL ELECTRIC

Owensboro, Kentucky 42301