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## NTE3025 Light Emitting Diode (LED)

**Description:**

The NTE3025 is a red Light emitting Gallium Arsenide Phosphide diode in a T-1 3/4 (5mm) type package designed for use in applications such as instruments, printed circuit board indicators, and board mounted panel displays.

**Features:**

- Low Power Consumption
- High Intensity
- IC Compatible/Low Current Requirements
- Versatile mounting on P.C. board or panel
- Reliable and Rugged

**Absolute Maximum Ratings:** ( $T_A = +25^{\circ}\text{C}$  unless otherwise specified)

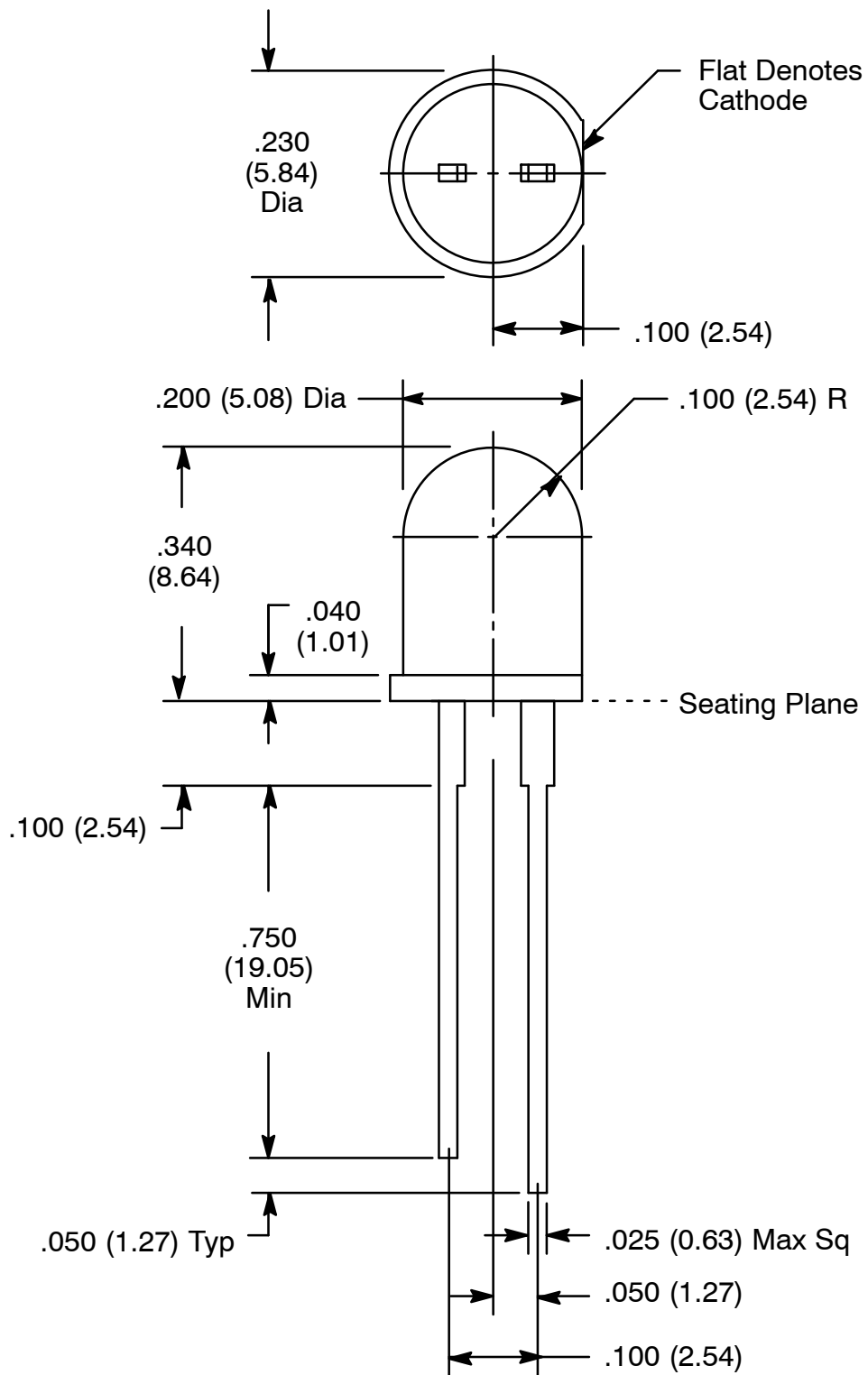
|   |   |
|---|---|
| Power Dissipation, $P_D$ .....  | 110mW                                   |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width), $I_{F(\text{Peak})}$ ..... | 200mA                                   |
| Continuos Forward Current, $I_F$ .....  | 40mA                                    |
| Derate Linearly Above $25^{\circ}\text{C}$ .....                                      | 0.5mA/ $^{\circ}\text{C}$               |
| Reverse Voltage, $V_R$ .....  | 5V                                      |
| Operating Temperature Range, $T_A$ .....  | $-55^{\circ}$ to $+100^{\circ}\text{C}$ |
| Storage Temperature Range, $T_{\text{stg}}$ .....                                     | $-55^{\circ}$ to $+100^{\circ}\text{C}$ |
| Lead Temperature (During Soldering, .063 in. (1.6mm) from Body for 5sec), $T_L$ ..... | $+260^{\circ}\text{C}$                  |

**Electrical/Optical Characteristics:** ( $T_A = +25^{\circ}\text{C}$  unless otherwise specified)

| Parameter                | Symbol          | Test Conditions              | Min | Typ | Max | Unit          |
|--------------------------|-----------------|------------------------------|-----|-----|-----|---------------|
| Luminous Intensity       | $I_V$           | $I_F = 10\text{mA}$ , Note 1 | 0.3 | 1.1 | -   | mcd           |
| Viewing Angle            | $2\theta^{1/2}$ | Note 2                       | -   | 36  | -   | deg.          |
| Peak Emission Wavelength | $\lambda_P$     |                              | -   | 655 | -   | nm            |
| Spectral Line Half Width | $\Delta\lambda$ |                              | -   | 40  | -   | nm            |
| Forward Voltage          | $V_F$           | $I_F = 20\text{mA}$          | -   | 1.7 | 2.0 | V             |
| Reverse Current          | $I_R$           | $V_R = 5\text{V}$            | -   | -   | 100 | $\mu\text{A}$ |
| Capacitance              | C               | $V_F = 0, f = 1\text{MHz}$   | -   | 30  | -   | pF            |

Note 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission Internationale De L'Eclairage) eye-response curve.

Note 2.  $\theta^{1/2}$  is the off-axis angle at which the liminous intensity is half the axial luminous intensity.



Tolerance  $\pm .010$  (.254)