

## 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)

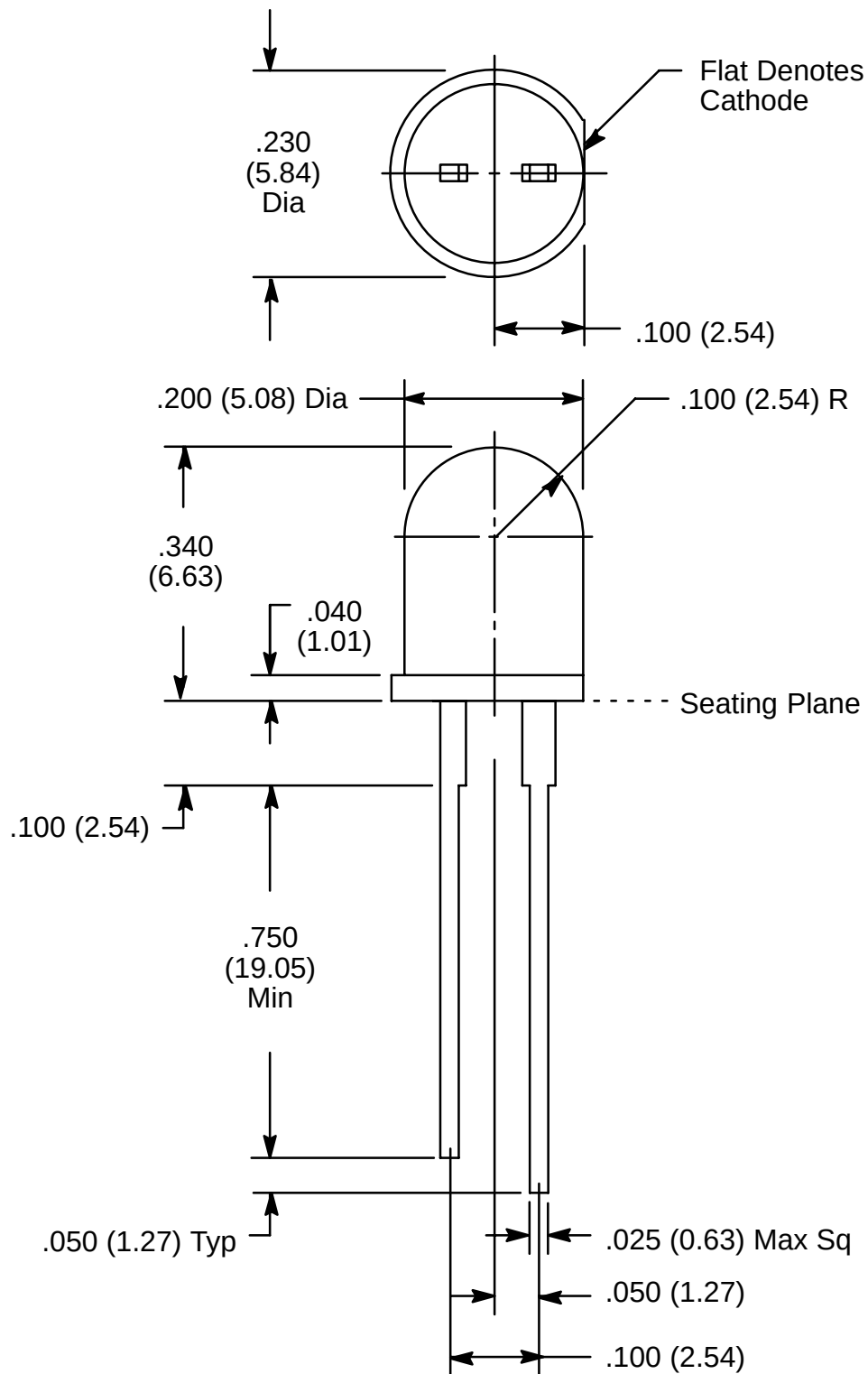
Power Dissipation,  $P_D$  ..... 110mW  
 Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width),  $I_{F(\text{Peak})}$  ..... 200mA  
 Continuous Forward Current,  $I_F$  ..... 40mA  
     Derate Linearly Above  $25^\circ\text{C}$  .....  $0.5\text{mA}/^\circ\text{C}$   
 Reverse Voltage,  $V_R$  ..... 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 luminous intensity is half the axial luminous intensity.



Tolerance  $\pm .010$  (.254)