



# Surface Mount LED

## 0805 Type Package High Intensity LEDs

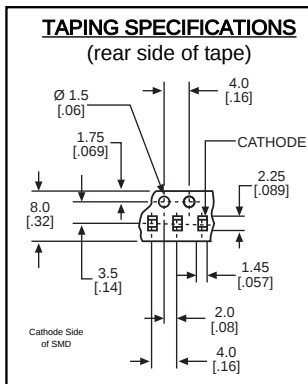
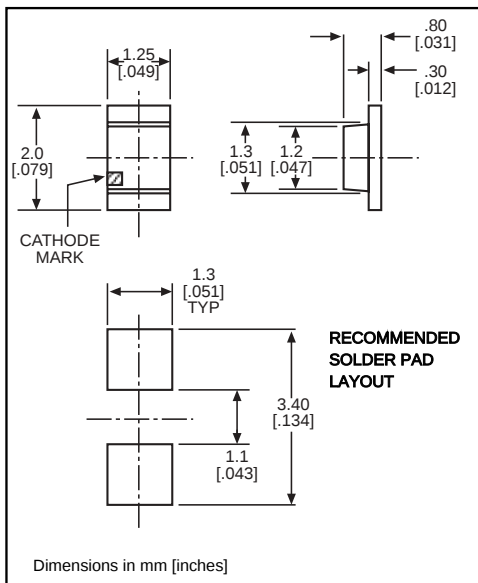
# Dialight

597-3xxx-4xx

597-5x11-4xx

597-5202-4xx

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### \*ORDERING INFORMATION

**597-3xxx-4xx**

packaging option

|    |                        |
|----|------------------------|
| 02 | 20 pieces on tape      |
| 07 | 7" reel, 4000 pcs/reel |

### PART NO.\*

### COLOR

597-3003-4xx AllnGaP Red

597-3212-4xx Orange

597-3222-4xx Yellow

597-5111-4xx Red

597-5202-4xx Orange

597-5311-4xx Green

597-5411-4xx Yellow

### Features

- Very bright light output
- Highly efficient AllnGaP die
- Compatible with automatic placement equipment
- Compatible with infrared reflow processes
- Packaged on 8mm tape, 7" reels (meets EIA-481-1 standard)
- Compatible with Dialight's Optopipe™ Series light pipes

| <b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A=25^\circ\text{C}$ ) | AllnGaP Red<br>-3003 | Orange<br>-3212 | Yellow<br>-3222 | Red<br>-5111         | Orange<br>-5202 | Green<br>-5311 | Yellow<br>-5411 |
|------------------------------------------------------------|----------------------|-----------------|-----------------|----------------------|-----------------|----------------|-----------------|
| Power Dissipation (mW)                                     | 81                   | 81              | 81              | 57.5                 | 70              | 70             | 70              |
| Forward Current (mA)                                       | 30                   | 30              | 30              | 25                   | 25              | 25             | 25              |
| Derating (mA/°C) From 25°C                                 | .43                  | .43             | .43             | .36                  | .36             | .36            | .36             |
| Peak Current (mA)<br>Pulse width = 1 $\mu\text{s}$         | 100                  | 100             | 100             | 60                   | 60              | 60             | 60              |
| Operating Temperature (°C)                                 | -40/+85              | -40/+85         | -40/+85         | -30/+85              | -30/+85         | -30/+85        | -30/+85         |
| Storage Temperature (°C)                                   | -40/+100             | -40/+100        | -40/+100        | -40/+100             | -40/+100        | -40/+100       | -40/+100        |
| Soldering Profile                                          | 280°C peak 3 seconds |                 |                 | 240°C peak 5 seconds |                 |                |                 |

Solder Adherence per MIL-STD-202E, Method 208C

| <b>OPERATING CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ ) |         | AllnGaP Red<br>-3003 | Orange<br>-3212 | Yellow<br>-3222 | Red<br>-5111 | Orange<br>-5202 | Green<br>-5311 | Yellow<br>-5411 |
|-------------------------------------------------------------|---------|----------------------|-----------------|-----------------|--------------|-----------------|----------------|-----------------|
| Luminous Intensity (mcd)                                    | Min.    | 16                   | 16              | 16              | 7            | 2.2             | 3.8            | 7               |
|                                                             | Typical | 50                   | 65              | 65              | 11.7         | 3.7             | 6.4            | 11.7            |
| Peak Wavelength (nm)                                        | Typical | 630                  | 609             | 594             | 660          | 605             | 560            | 570             |
| $\lambda_{\text{Peak}}$                                     |         |                      |                 |                 |              |                 |                |                 |
| Viewing Angle ( $2\theta_{1/2}$ )                           | Typical | 156°                 | 156°            | 156°            | 140°         | 140°            | 140°           | 140°            |
| Forward Voltage (V)                                         | Typical | 1.9                  | 1.9             | 1.9             | 1.7          | 2.2             | 2.1            | 2.1             |
|                                                             | Max.    | 2.4                  | 2.4             | 2.4             | 2.3          | 2.8             | 2.8            | 2.8             |
| Reverse Current ( $\mu\text{A}$ )                           | Max     | 100                  | 100             | 100             | 100          | 100             | 100            | 100             |
| ( $V_R = 5\text{V}$ )                                       |         |                      |                 |                 |              |                 |                |                 |

 $\theta_{1/2}$  is the off axis angle at which the luminous intensity is half the axial luminous intensity