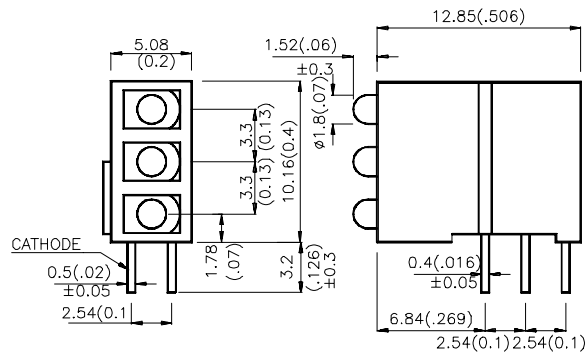


Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

1.8mm TRI-LEVEL LED INDICATORS

| | |
|--------------|---------------------|
| E2060NA/3GD | GREEN |
| E2060NA/3ID | HIGH EFFICIENCY RED |
| E2060NA/3SRD | SUPER BRIGHT RED |
| E2060NA/3YD | YELLOW |

Features

1. TRI-LEVEL DESIGN.
2. DIFFERENT COLOR COMBINATION AVAILABLE.
3. BLACK CASE ENHANCES CONTRAST RATIO.
4. HIGH RELIABILITY LIFE MEASURED IN YEARS.

Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

Selection Guide

| Part No. | Emitting Color +Material | λD (nm) | Lens Type | Iv (mcd) @10mA*20mA | | Viewing Angle |
|--------------|-----------------------------|------------------|-----------------|------------------------|------|------------------|
| | | | | Min. | Typ. | 2 θ /2 |
| E2060NA/3ID | GaAsP/GaP | 625 | RED DIFFUSED | 8 | 20 | 70° |
| E2060NA/3GD | GaP | 568 | GREEN DIFFUSED | 5 | 10 | 70° |
| E2060NA/3YD | GaAsP/GaP | 588 | YELLOW DIFFUSED | 3 | 8 | 70° |
| E2060NA/3SRD | GaAlAs | 640 | RED DIFFUSED | *70 | *200 | 70° |

Notes:

1. θ /2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. *Luminous Intensity with asterisk is measured at 20mA.

Electrical / Optical Characteristics at T_A=25°C

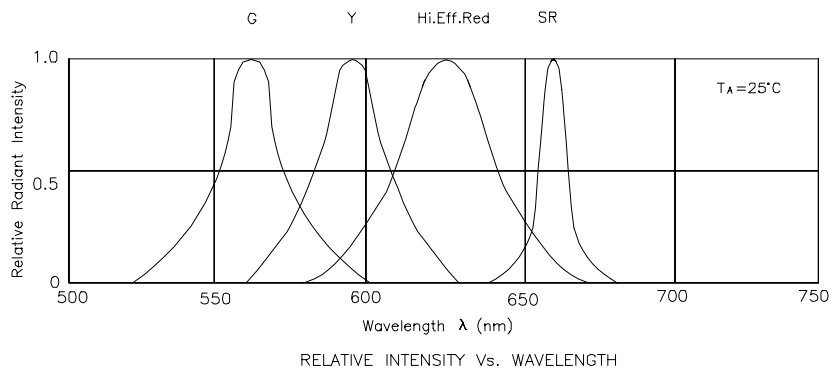
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|-------------------------|--|---------------------------|--------------------------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | High Efficiency Red Green Yellow Super Bright Red | 627 565 590 660 | | nm | I _F =20mA |
| λ_D | Dominate Wavelength | High Efficiency Red Green Yellow Super Bright Red | 625 568 588 640 | | nm | I _F =20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Halfwidth | High Efficiency Red Green Yellow Super Bright Red | 45 30 35 20 | | nm | I _F =20mA |
| C | Capacitance | High Efficiency Red Green Yellow Super Bright Red | 15 15 20 45 | | pF | V _F =0V;f=1MHz |
| V _F | Forward Voltage | High Efficiency Red Green Yellow Super Bright Red | 2.0 2.0 2.1 1.85 | 2.5 2.5 2.5 2.5 | V | I _F =20mA |
| I _R | Reverse Current | All | | 10 | uA | V _R = 5V |

Absolute Maximum Ratings at T_A=25°C

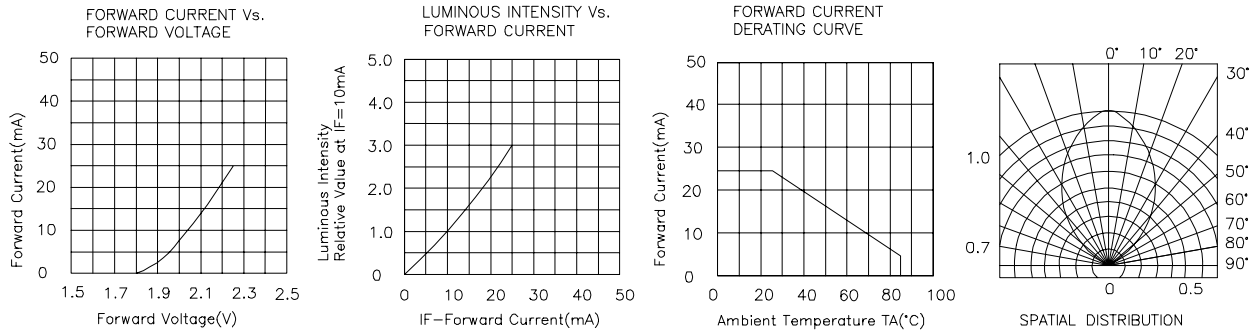
| Parameter | High Efficiency Red | Green | Yellow | Super Bright Red | Units |
|--------------------------------|---------------------|-------|--------|------------------|-------|
| Power dissipation | 105 | 105 | 105 | 100 | mW |
| DC Forward Current | 30 | 25 | 30 | 30 | mA |
| Peak Forward Current [1] | 160 | 140 | 140 | 155 | mA |
| Reverse Voltage | 5 | 5 | 5 | 5 | V |
| Operating/Storage Temperature | -40°C To +85°C | | | | |
| Lead Soldering Temperature [2] | 260°C For 5 Seconds | | | | |

Notes:

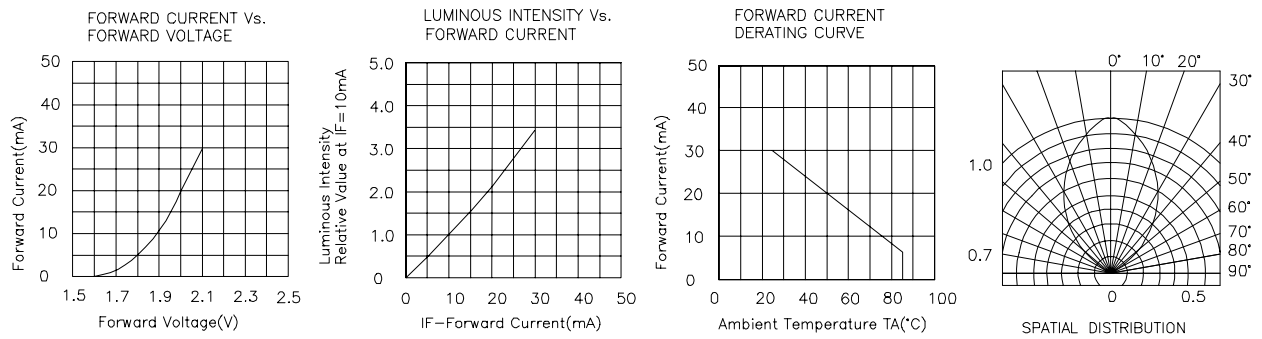
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



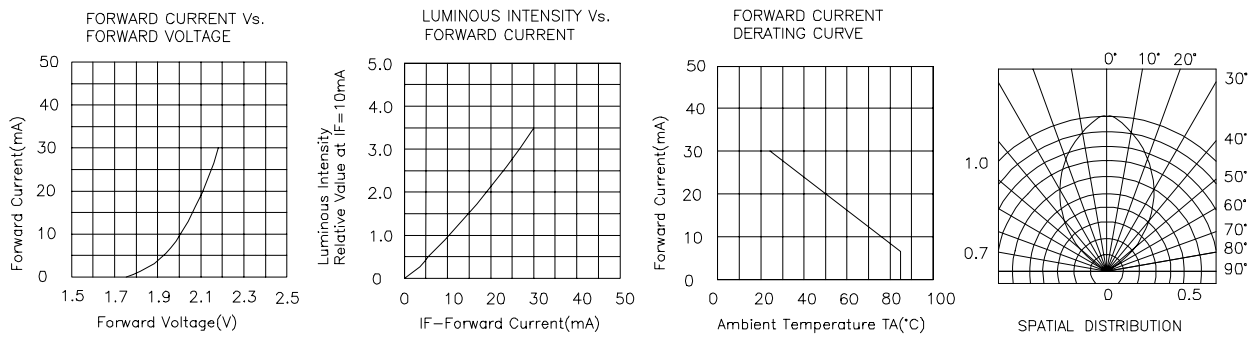
Green E2060NA/3GD



High Efficiency Red E2060NA/3ID



Yellow E2060NA/3YD



Super Bright Red E2060NA/3SRD

