

L1060ID HIGH EFFICIENCY RED L1060GD GREEN
 L1060ED ORANGE L1060YD YELLOW
 L1060SRx SUPER BRIGHT RED

Features

- 1.8mm DIAMETER SMALL SIZE LED LAMP.
- ULTRA BRIGHTNESS IS AVAILABLE.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- RELIABLE AND RUGGED.
- AVAILABLE IN DIFFUSED AND WATER CLEAR LENS.

Description

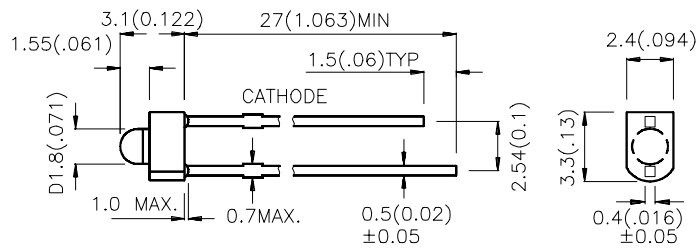
The High Efficiency Red and Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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.

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.

Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 10 mA *20 mA | | Viewing Angle |
|----------|---------------------------------|-----------------|----------------------------|------|------------------|
| | | | Min. | Typ. | 2θ1/2 |
| L1060ID | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 8 | 15 | 70° |
| L1060ED | ORANGE (GaAsP/GaP) | ORANGE DIFFUSED | 8 | 15 | 70° |
| L1060GD | GREEN (GaP) | GREEN DIFFUSED | 5 | 10 | 70° |
| L1060YD | YELLOW (GaAsP/GaP) | YELLOW DIFFUSED | 5 | 8 | 70° |
| L1060SRD | SUPER BRIGHT RED (GaAlAs) | RED DIFFUSED | *70 | *200 | 70° |
| L1060SRC | | WATER CLEAR | *100 | *300 | 30° |

Notes:

1. θ1/2 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

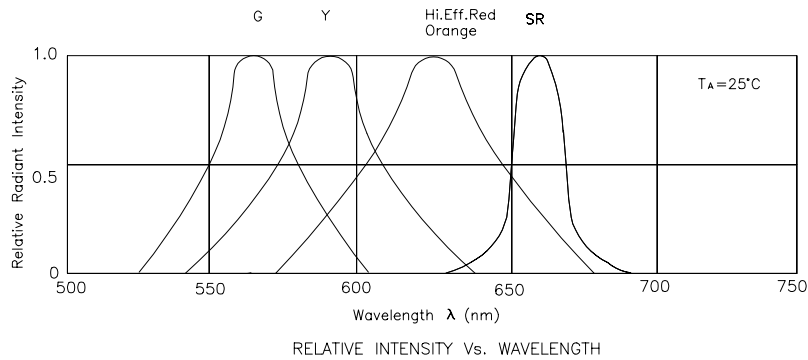
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-------------------|-------------------------|--|----------------------------------|---------------------------------|-------|-----------------|
| λ _{peak} | Peak Wavelength | High Efficiency Red Orange Green Yellow Super Bright Red | 627 627 565 590 660 | | nm | IF=20mA |
| λ _D | Dominate Wavelength | High Efficiency Red Orange Green Yellow Super Bright Red | 625 625 568 588 640 | | nm | IF=20mA |
| Δλ _{1/2} | Spectral Line Halfwidth | High Efficiency Red Orange Green Yellow Super Bright Red | 45 45 30 35 20 | | nm | IF=20mA |
| C | Capacitance | High Efficiency Red Orange Green Yellow Super Bright Red | 15 15 15 20 45 | | pF | VF=0V;f=1MHz |
| V _F | Forward Voltage | High Efficiency Red Orange Green Yellow Super Bright Red | 2.0 2.0 2.2 2.1 1.85 | 2.5 2.5 2.5 2.5 2.5 | V | IF=20mA |
| I _R | Reverse Current | All | | 10 | uA | VR = 5V |

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

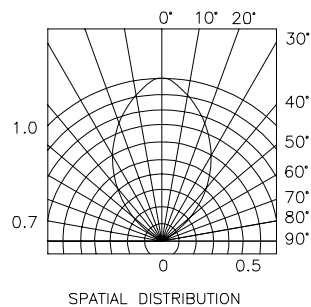
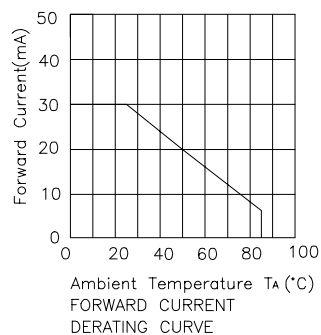
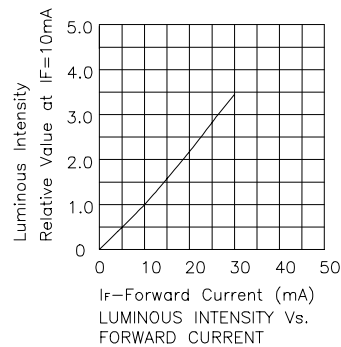
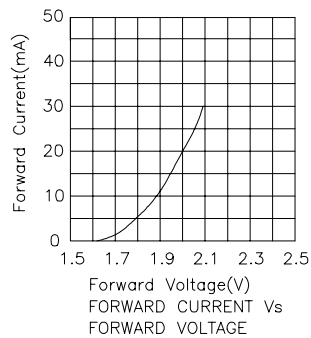
| Parameter | High Efficiency Red | Orange | Green | Yellow | Super Bright Red | Units |
|-------------------------------|---------------------|--------|-------|--------|------------------|-------|
| Power dissipation | 105 | 105 | 105 | 105 | 100 | mW |
| DC Forward Current | 30 | 30 | 25 | 30 | 30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

Notes:

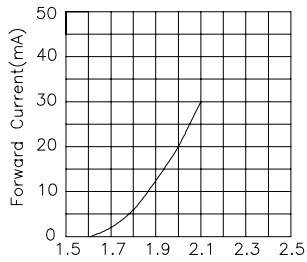
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2.4mm below package base.



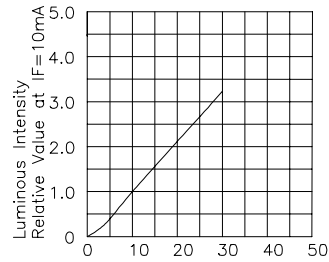
High Efficiency Red L1060ID



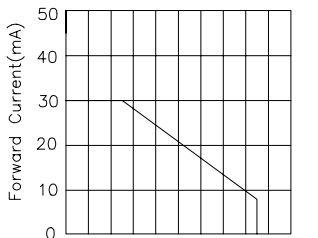
Orange L1060ED



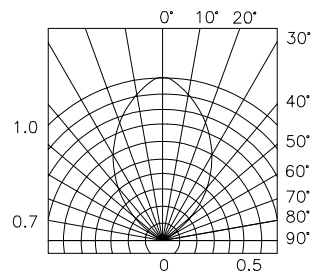
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE



If-Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

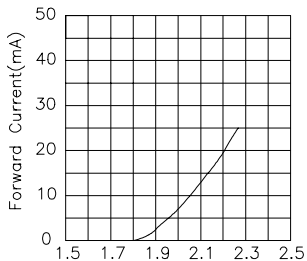


Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE

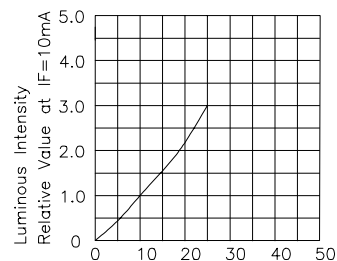


SPATIAL DISTRIBUTION

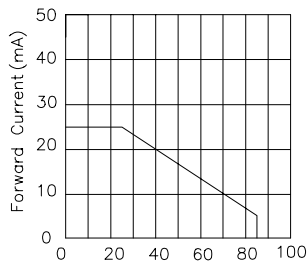
Green L1060GD



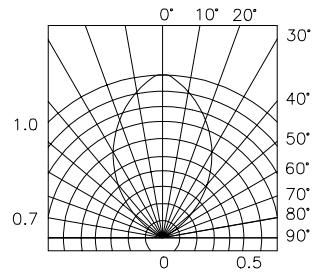
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE



If-Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



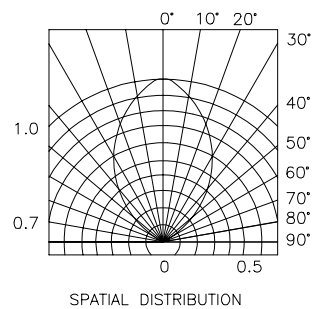
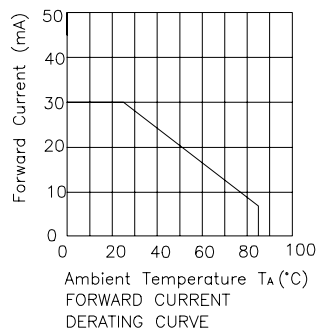
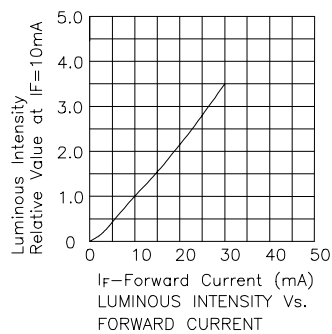
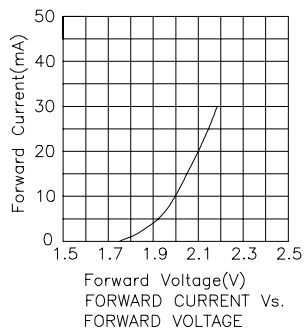
Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE



SPATIAL DISTRIBUTION

Kingbright

Yellow L1060YD



Super Bright Red L1060SRD, L1060SRC

