

1.8mm SOLID STATE LAMPS

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

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

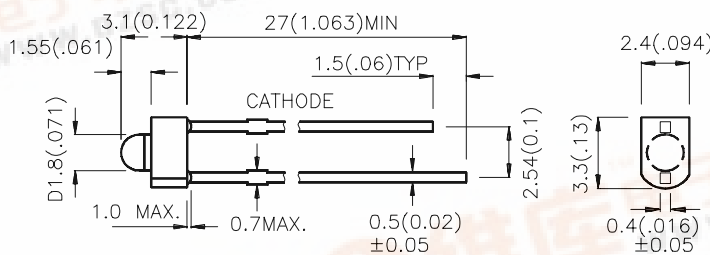
The High Efficiency Red and Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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 ±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.



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## 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<sub>A</sub>=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	High Efficiency Red Orange Green Yellow Super Bright Red	627 627 565 590 660		nm	IF=20mA
λ <sub>D</sub>	Dominate Wavelength	High Efficiency Red Orange Green Yellow Super Bright Red	625 625 568 588 640		nm	IF=20mA
Δλ <sub>1/2</sub>	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 <sub>F</sub>	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 <sub>R</sub>	Reverse Current	All		10	uA	VR = 5V

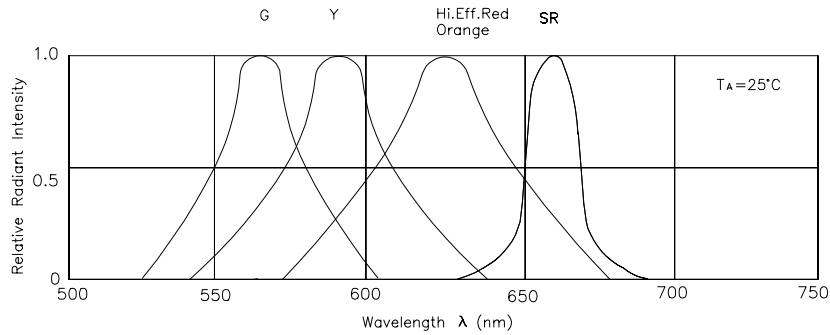
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## Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

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					

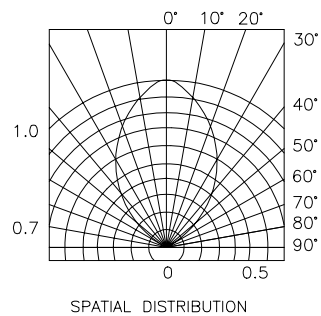
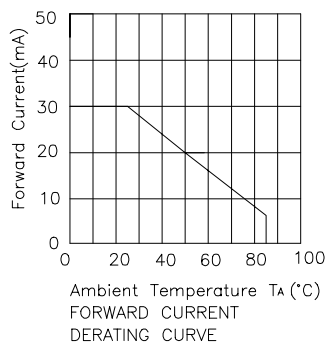
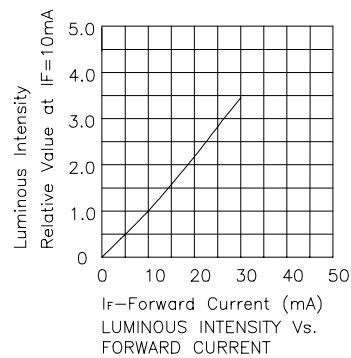
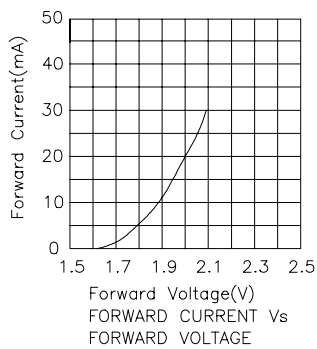
Notes:

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



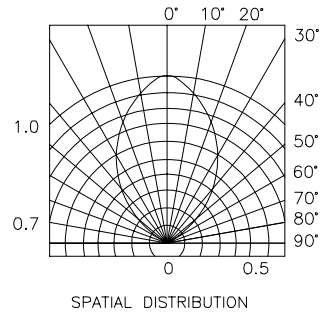
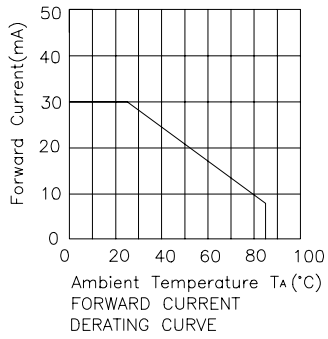
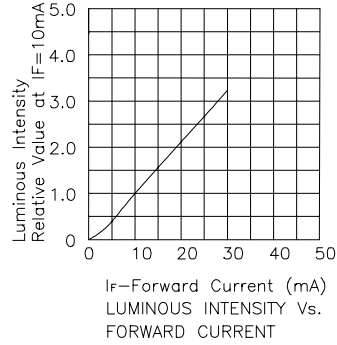
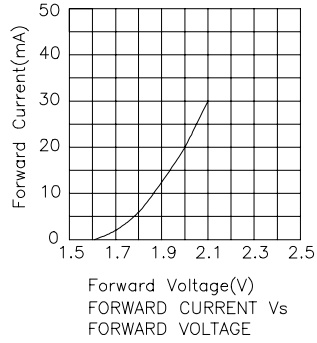
RELATIVE INTENSITY Vs. WAVELENGTH

## High Efficiency Red L1060ID

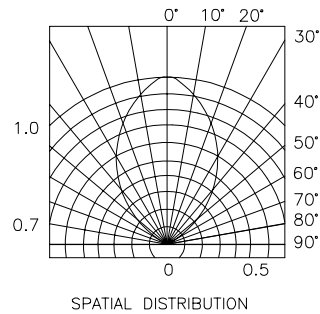
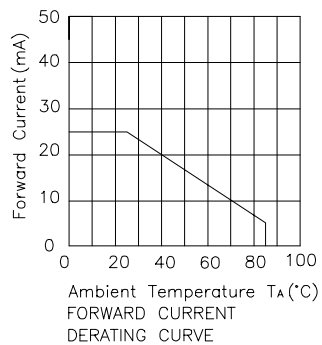
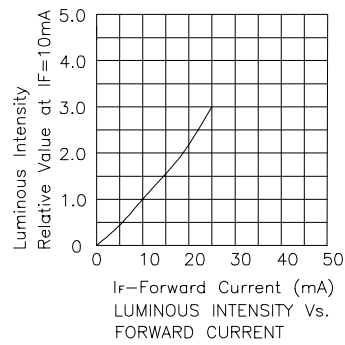
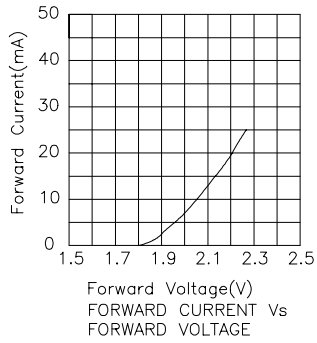


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## Orange L1060ED

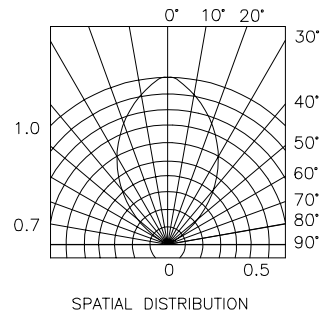
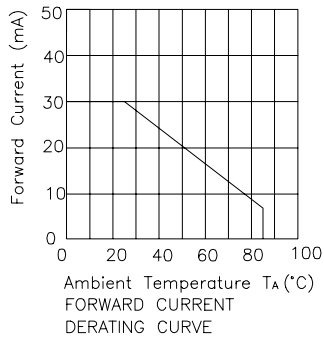
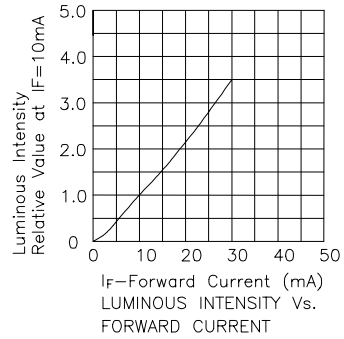
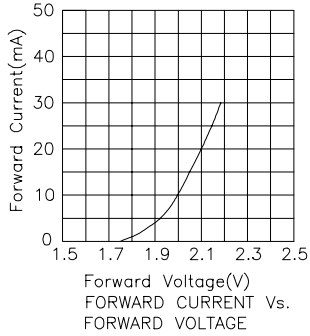


## Green L1060GD



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## Yellow L1060YD



## Super Bright Red L1060SRD, L1060SRC

