

Features

- LOW POWER CONSUMPTION.
- ULTRA BRIGHTNESS IS AVAILABLE .
- RELIABLE AND RUGGED.
- EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
- SUITABLE FOR LEVEL INDICATOR.
- LONG LIFE - SOLID STATE RELIABILITY.

L169XH BRIGHT RED

L169XI HIGH EFFICIENCY RED

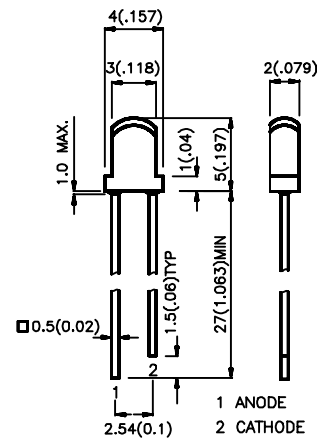
L169XY YELLOW

L169XG GREEN

L169XPG PURE GREEN

L169XA YELLOW

Package Dimensions



Description

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

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

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 subjected to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA		Viewing Angle
			Min.	Typ.	
L169XHD	BRIGHT RED (GaP)	RED DIFFUSED	1.2	3	100°
L169XHT	BRIGHT RED (GaP)	RED TRANS.	2	5	30°
L169XID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	15	100°
L169XIT	HIGH EFFICIENCY RED (GaAsP/GaP)	RED TRANS.	12	30	30°
L169XGD	GREEN (GaP)	GREEN DIFFUSED	5	15	100°
L169XGT	GREEN (GaP)	GREEN TRANS.	5	20	30°
L169XYD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	10	100°
L169XYT	YELLOW (GaAsP/GaP)	YELLOW TRANS.	5	20	30°
L169XAT	YELLOW (GaAsP/GaP)	AMBER TRANS.	5	20	30°
L169XPGD	PURE GREEN (GaP)	GREEN DIFFUSED	2	5	100°
L169XPGTL	PURE GREEN (GaP)	GREEN TRANS.	3	8	30°

Note:

1. $\theta 1/2$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at T_A=25°C

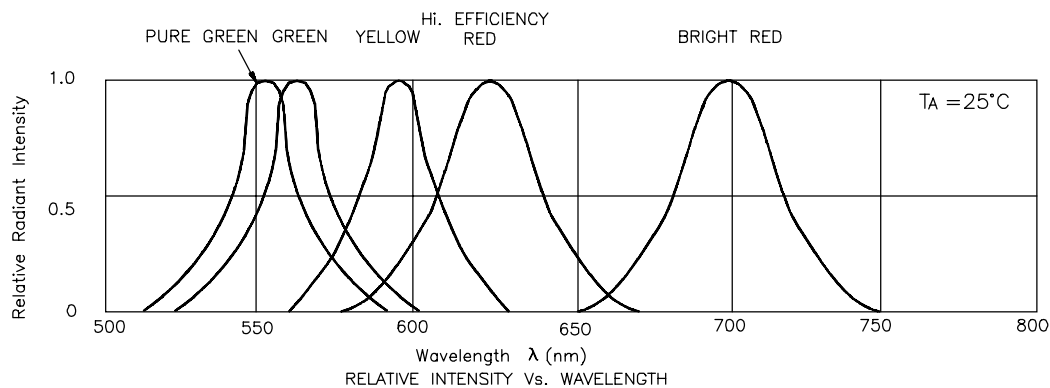
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Bright Red High Efficiency Red Green Yellow Pure Green	700 625 565 590 555		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Bright Red High Efficiency Red Green Yellow Pure Green	45 45 30 35 30		nm	IF=20mA
C	Capacitance	Bright Red High Efficiency Red Green Yellow Pure Green	40 12 45 10 45		pF	VF=0V;f=1MHz
V _F	Forward Voltage	Bright Red High Efficiency Red Green Yellow Pure Green	2.0 2.0 2.2 2.1 2.25	2.5 2.5 2.5 2.5 2.6	V	IF=20mA
I _R	Reverse Current	All		10	uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

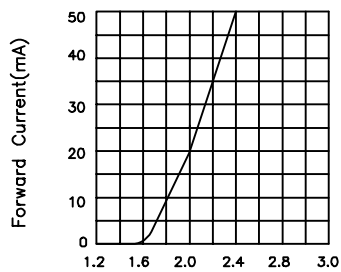
Parameter	Bright Red	High Efficiency Red	Green	Yellow	Pure Green	Units
Power dissipation	120	105	105	105	105	mW
DC Forward Current	25	30	25	30	25	mA
Peak Forward Current [1]	150	150	150	150	150	mA
Reverse Voltage	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C					
Lead Soldering Temperature [2]	260°C For 5 Seconds					

Notes:

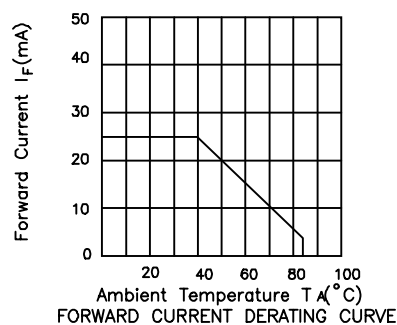
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



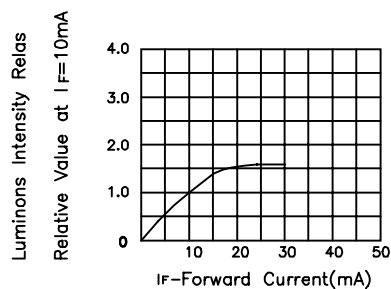
Bright Red L169XHD,L169XHT



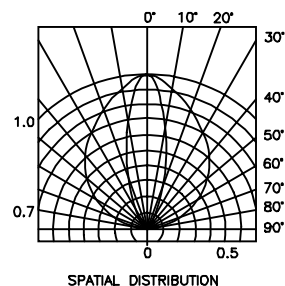
FORWARD CURRENT Vs. FORWARD VOLTAGE



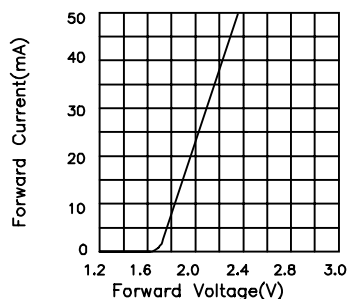
FORWARD CURRENT DERATING CURVE



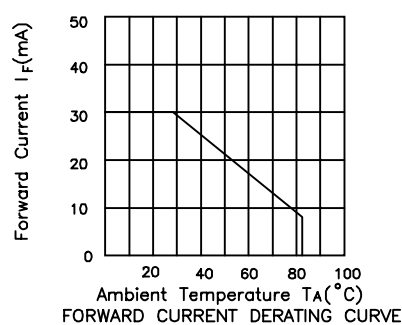
LUMINOUS INTENSITY Vs. FORWARD CURRENT



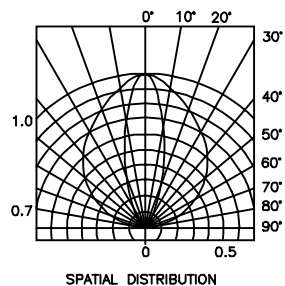
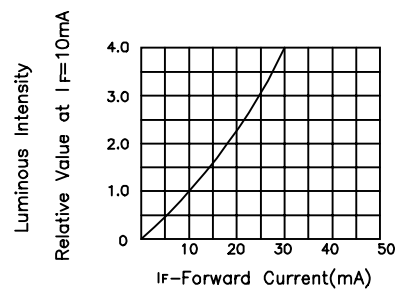
High Efficiency Red L169XID,L169XIT



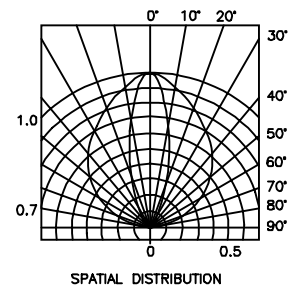
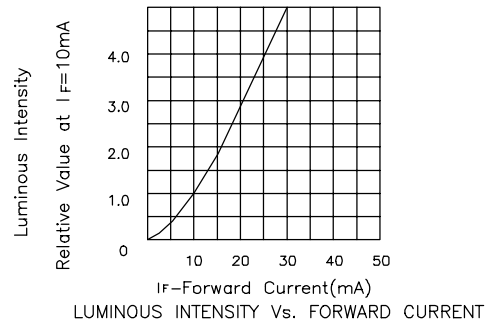
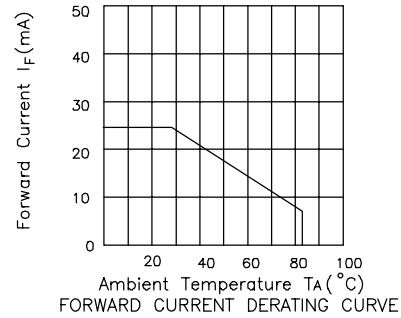
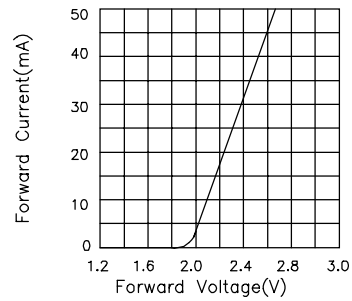
FORWARD CURRENT Vs. FORWARD VOLTAGE



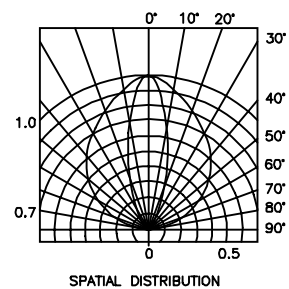
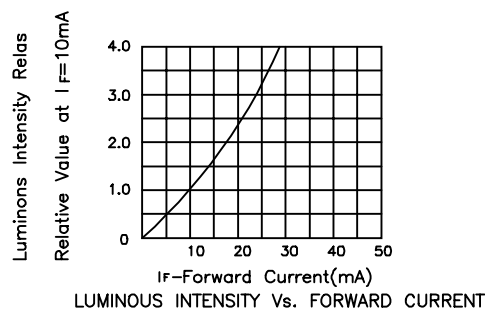
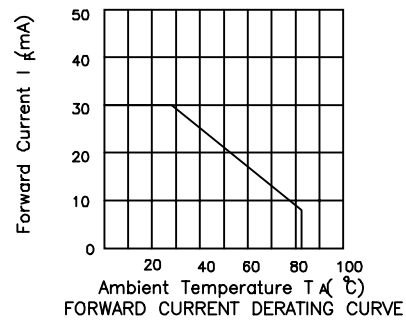
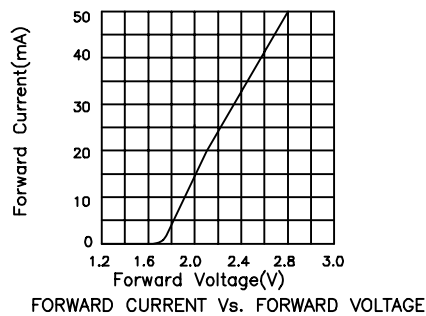
FORWARD CURRENT DERATING CURVE



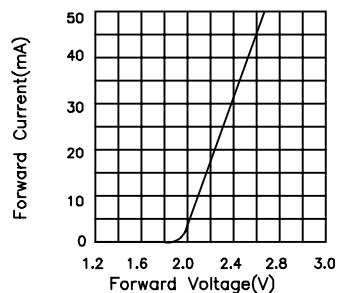
Green L169XGD,L169XGT



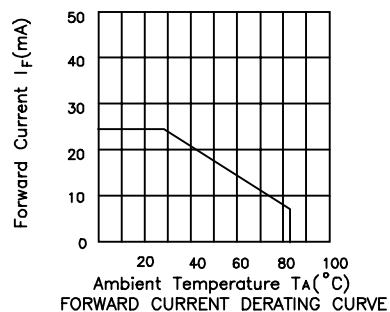
Yellow L169XYD,L169XYT,L169XAT



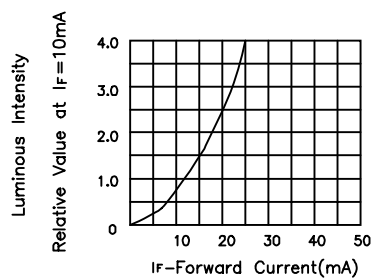
Pure Green L169XPGD,L169XPGTL



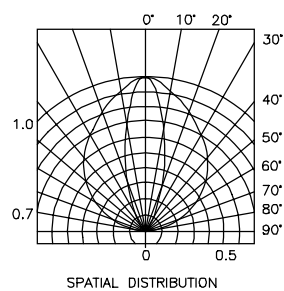
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION