

L13HD	BRIGHT RED	L13GD	GREEN
L13ID	HIGH EFFICIENCY RED	L13YD	YELLOW

Features

- MOUNTS FLUSH WITH PANEL.
- LOW POWER CONSUMPTION.
- SUITABLE FOR AUDIO PANEL INDICATOR.
- FITS 2mm HOLE IN PANEL UP TO 3.5mm (.138").
- LONG LIFE - SOLID STATE RELIABILITY.

Description

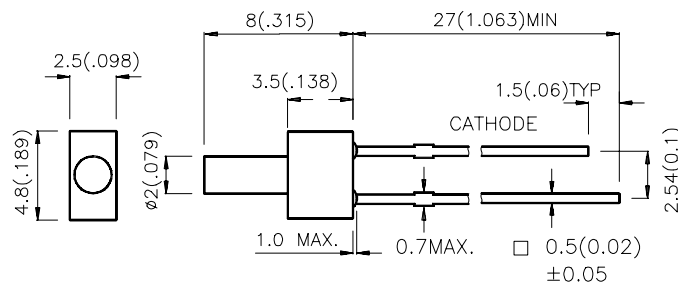
The Bright Red source color devices are made with Gallium Phosphide Red Light Emitting Diode.

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.

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		Viewing Angle
			Min.	Typ.	2θ1/2
L13HD	BRIGHT RED (GaP)	RED DIFFUSED	0.5	1.5	70°
L13ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	5	10	70°
L13GD	GREEN (GaP)	GREEN DIFFUSED	3	10	70°
L13YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	3	8	70°

Note:

1. θ1/2 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

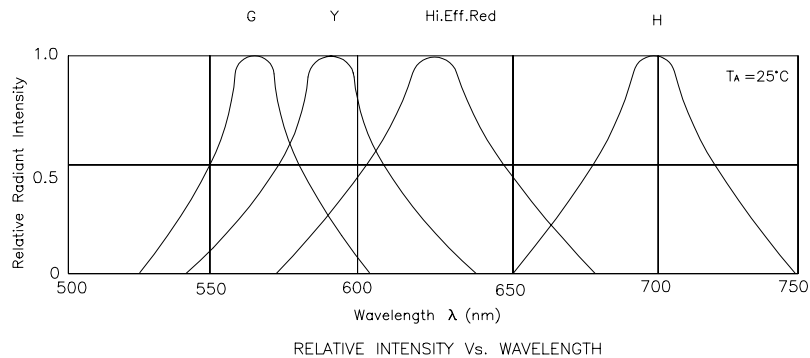
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	Bright Red High Efficiency Red Green Yellow	700 627 565 590		nm	IF=20mA
λ _D	Dominate Wavelength	Bright Red High Efficiency Red Green Yellow	660 625 568 588		nm	IF=20mA
Δλ _{1/2}	Spectral Line Halfwidth	Bright Red High Efficiency Red Green Yellow	45 45 30 35		nm	IF=20mA
C	Capacitance	Bright Red High Efficiency Red Green Yellow	40 15 15 20		pF	VF=0V;f=1MHz
V _F	Forward Voltage	Bright Red High Efficiency Red Green Yellow	2.25 2.0 2.2 2.1	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°C

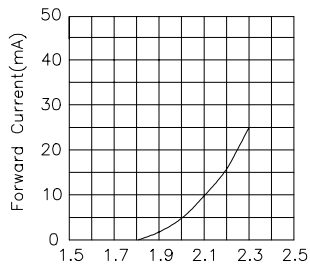
Parameter	Bright Red	High Efficiency Red	Green	Yellow	Units
Power dissipation	120	105	105	105	mW
DC Forward Current	25	30	25	30	mA
Peak Forward Current [1]	120	160	140	140	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

Notes:

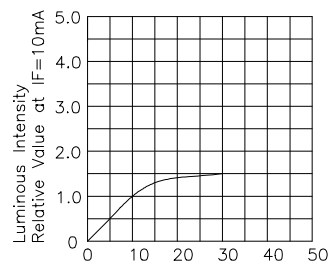
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



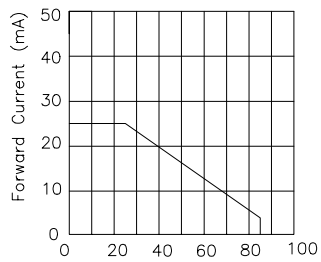
Bright Red L13HD



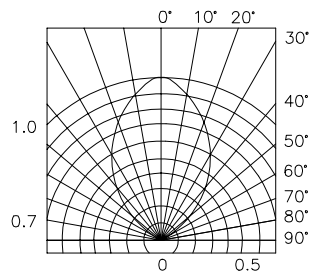
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



I_f —Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

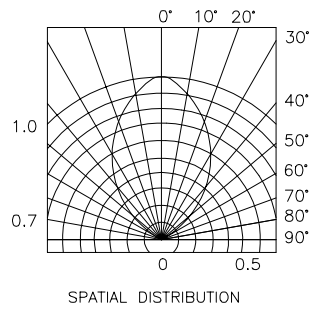
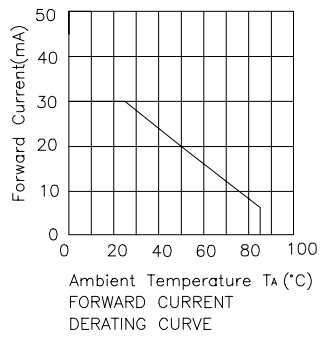
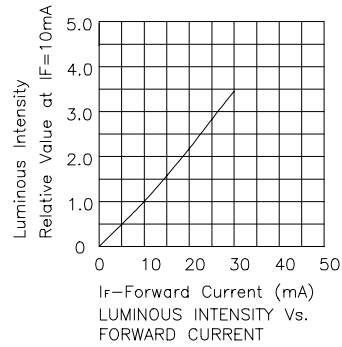
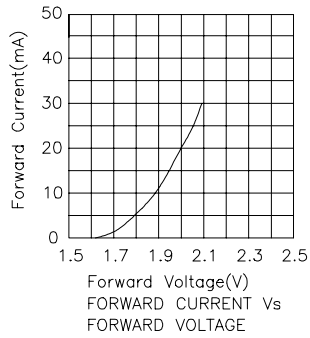


Ambient Temperature T_A ($^\circ\text{C}$)
FORWARD CURRENT
DERATING CURVE

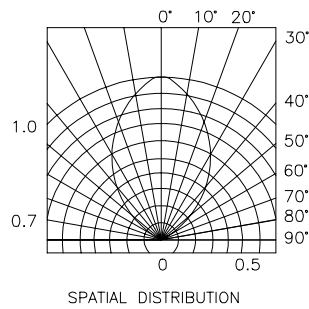
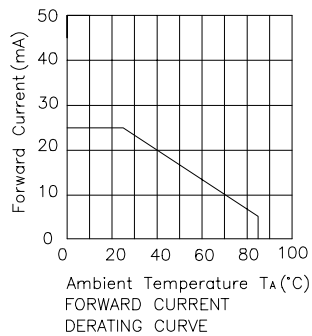
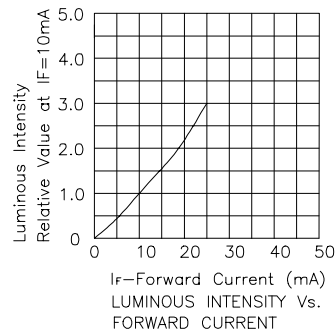
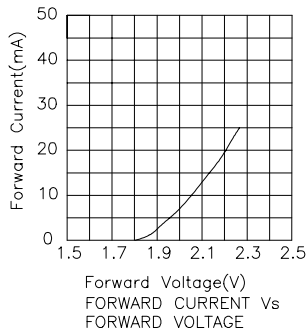


SPATIAL DISTRIBUTION

High Efficiency Red L13ID



Green L13GD



Yellow L13YD

