

- L-53LID HIGH EFFICIENCY RED
- L-53LGD GREEN
- L-53LYD YELLOW
- L-53LSRD SUPER BRIGHT RED

Features

- LOW CURRENT IF= 2mA OPERATING.
- HIGH LIGHT OUTPUT AT LOW CURRENTS.
- LOW POWER CONSUMPTION.
- LOW CURRENT REQUIREMENTS.
- WIDE VIEWING ANGLE.
- I.C. COMPATIBLE.
- RELIABLE AND RUGGED.

Description

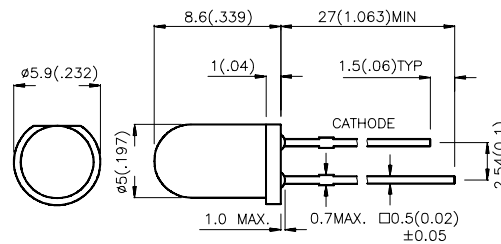
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode

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.

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) @ 2 mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-53LID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	0.8	5	60°
L-53LGD	GREEN (GaP)	GREEN DIFFUSED	0.8	2	60°
L-53LYD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	0.8	2	60°
L-53LSRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	8	20	60°

Note:

1. 01/2 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

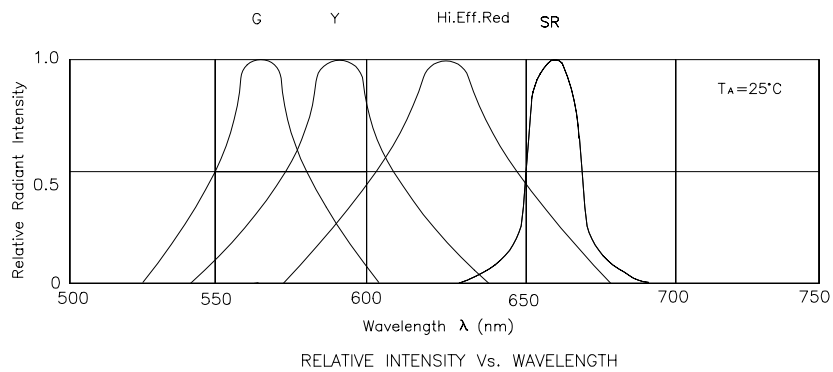
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 565 590 660		nm	IF=2mA
λ_D	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red	627 568 588 640		nm	IF=2mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red	45 30 35 20		nm	IF=2mA
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	1.75 1.9 1.8 1.65	2.5 2.5 2.1 2.5	V	IF=2mA
I _R	Reverse Current	All		10	uA	V _R = 5V

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

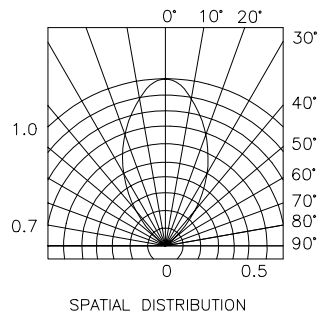
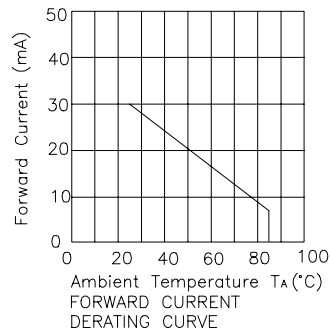
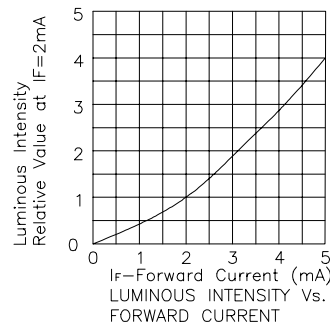
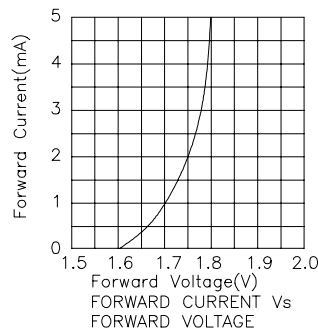
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	105	105	100	100	mW
DC Forward Current	30	25	30	30	mA
Peak Forward Current [1]	160	140	70	155	mA
Reverse Voltage	5	5	5	5	V
Operation/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

Notes:

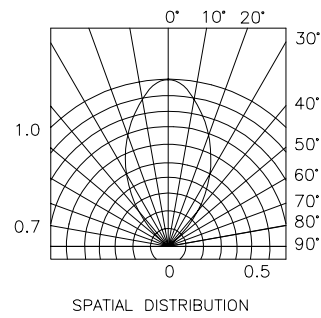
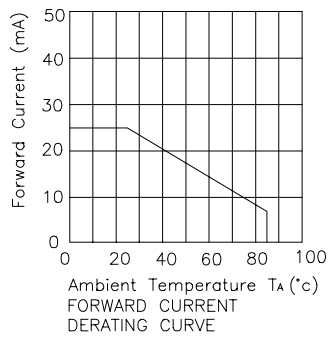
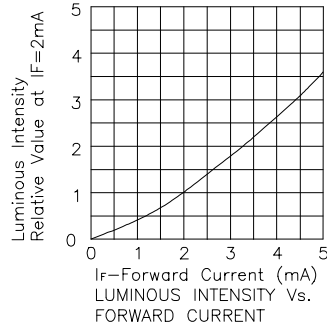
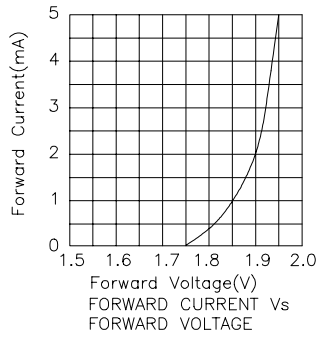
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



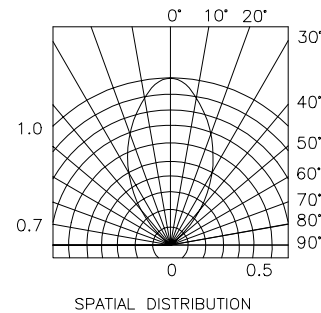
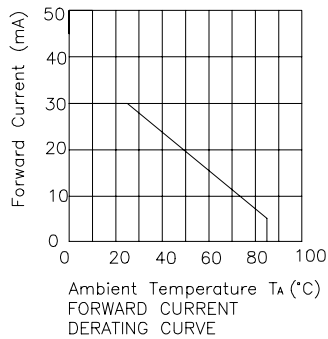
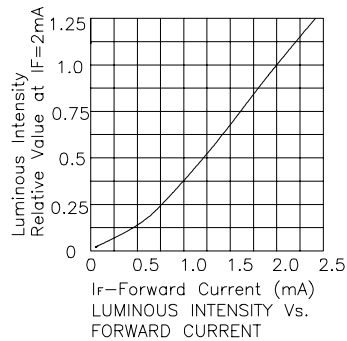
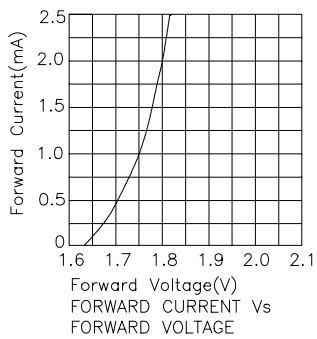
High Efficiency Red L-53LID



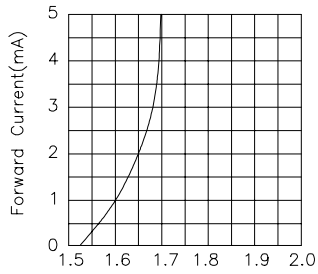
Green L-53LGD



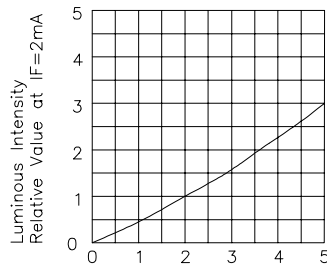
Yellow L-53LYD



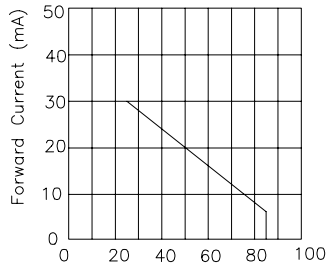
Super Bright Red L-53LSRD



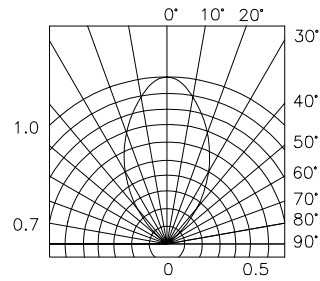
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE



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



Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE



SPATIAL DISTRIBUTION