

L53LID	HIGH EFFICIENCY RED
L53LGD	GREEN
L53LYD	YELLOW
L53LSRD	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

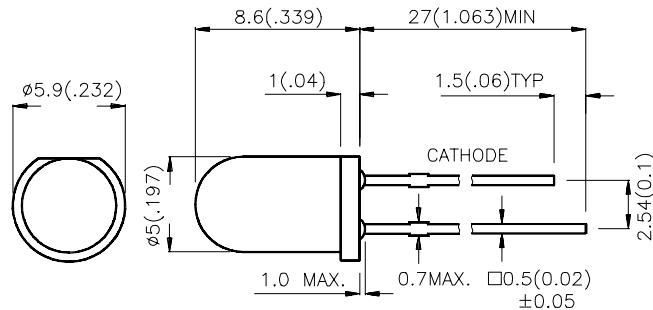
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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
L53LID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	0.8	5	60°
L53LGD	GREEN (GaP)	GREEN DIFFUSED	0.8	2	60°
L53LYD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	0.8	2	60°
L53LSRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	8	20	60°

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<sub>A</sub>=25°C

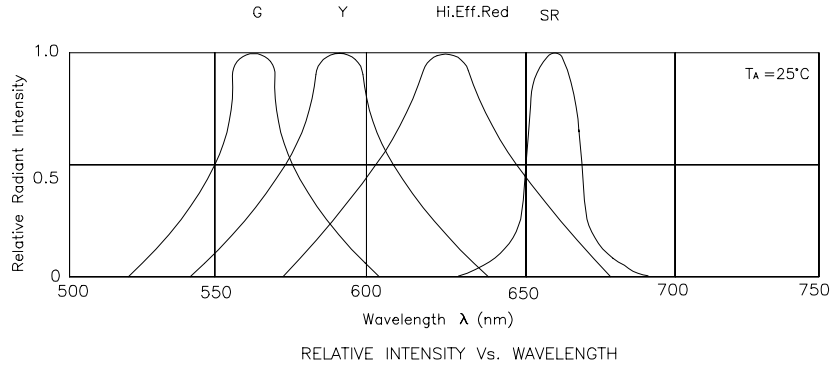
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 565 590 660		nm	IF=2mA
λ <sub>D</sub>	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red	627 568 588 640		nm	IF=2mA
Δλ <sub>1/2</sub>	Spectral 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	VF=0V;f=1MHz
V <sub>F</sub>	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 <sub>R</sub>	Reverse Current	All		10	uA	VR = 5V

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

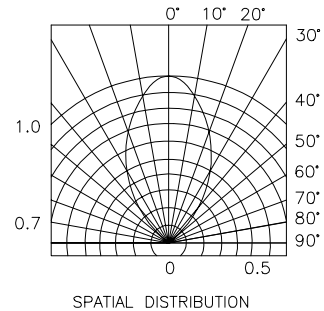
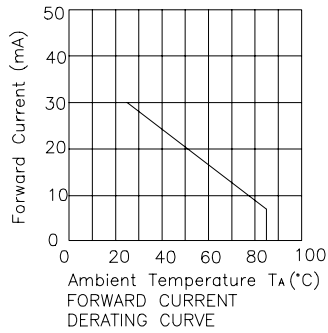
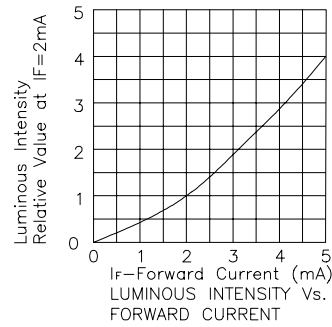
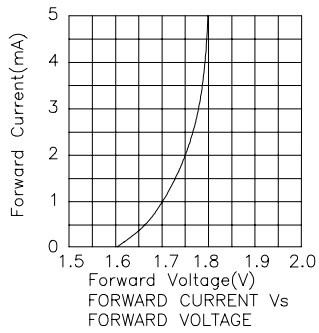
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	105	105	100	100	mW
DC Forward Current	30	25	30	30	mA
Peak Forward Current [1]	160	140	70	155	mA
Reverse Voltage	5	5	5	5	V
Operation/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

Notes:

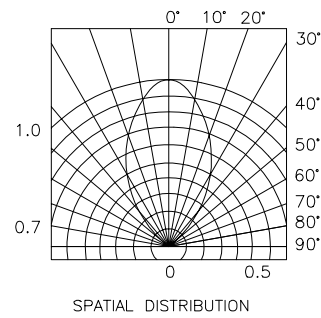
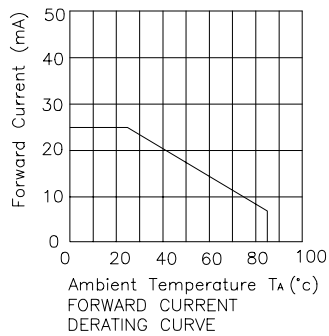
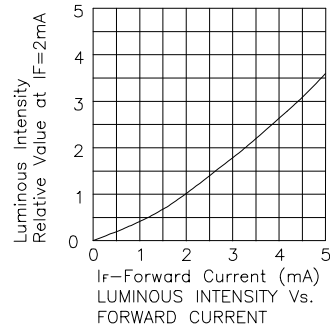
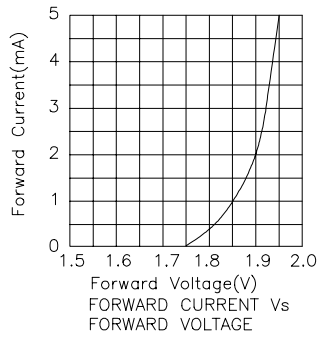
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



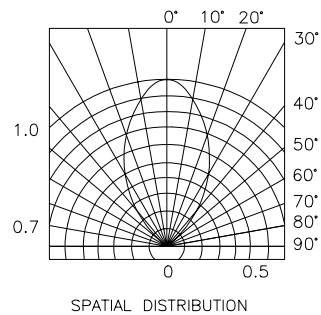
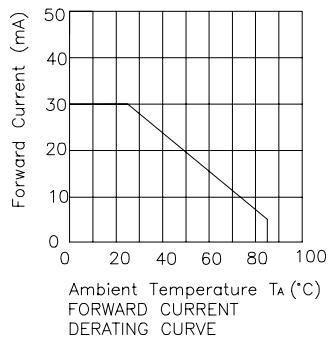
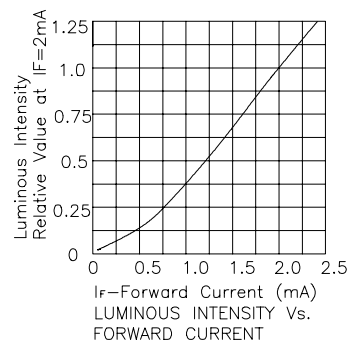
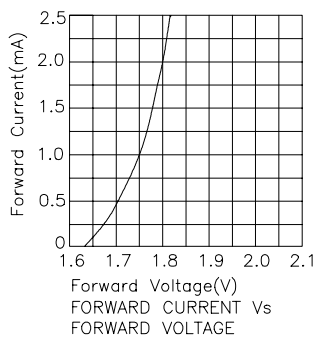
## High Efficiency Red L53LID



## Green L53LGD



## Yellow L53LYD



## Super Bright Red L53LSRD

