

L53ID14V	HIGH EFFICIENCY RED
L53GD14V	GREEN
L53YD14V	YELLOW
L53SGD14V	SUPER BRIGHT GREEN
L53SRD14V	SUPER BRIGHT RED

### Features

- 14 VOLT SERIES IN T-1 PACKAGES.
- INTEGRAL CURRENT LIMITING RESISTOR.
- NO EXTERNAL CURRENT LIMITER REQUIRED WITH 14 VOLT SUPPLY.
- COST EFFECTIVE - SAVE SPACE AND RESISTOR COST.
- WIDE VIEWING ANGLE.
- AVAILABLE IN ALL COLORS.
- 14V INTERNAL RESISTOR.

### Description

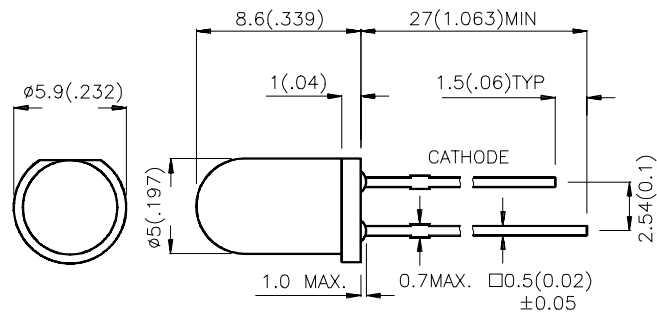
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Green and Super Bright 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) VF=14V		Viewing Angle
			Min.	Typ.	
L53ID14V	HIGH EFFICIENCY RED(GaAsP/GaP)	RED DIFFUSED	18	65	60°
L53GD14V	GREEN (GaP)	GREEN DIFFUSED	5	18	60°
L53YD14V	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	16	60°
L53SGD14V	SUPER BRIGHT GREEN(GaP)	GREEN DIFFUSED	5	18	60°
L53SRD14V	SUPER BRIGHT RED(GaAlAs)	RED DIFFUSED	70	160	60°

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<sub>A</sub>=25°C

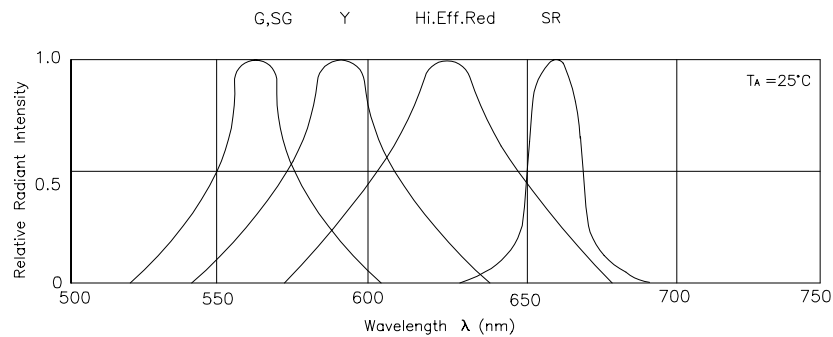
Symbol	Parameter	Device	Typ.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	627 565 590 660 565	nm	VF=14V
$\lambda_D$	Wavelength current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	625 568 588 640 568	nm	VF=14V
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	45 30 35 20 30	nm	VF=14V
I <sub>F</sub>	Forward Current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	10 10 10 10 10	mA	VF=14V
I <sub>R</sub>	Reverse Current	All	10	uA	VR = 5V

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

Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	130	160	160	160	160	mW
Forward voltage (max)	16	16	16	16	16	mA
Reverse Voltage	5	5	5	5	5	V
Operating Temperature	-40 °C To +70 °C					
Storage Temperature	-40 °C To +85 °C					
Lead Solder Temperature [1]	260 °C For 5 Seconds					

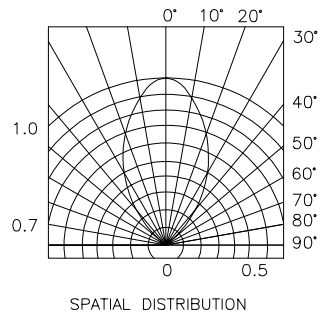
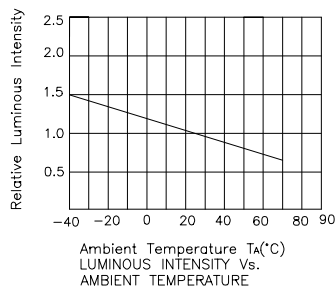
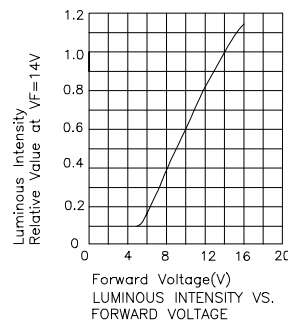
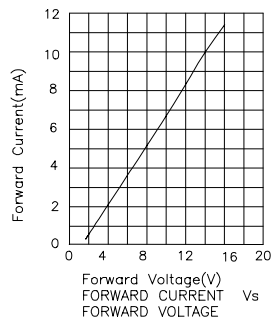
Note:

1. 4mm below package base.

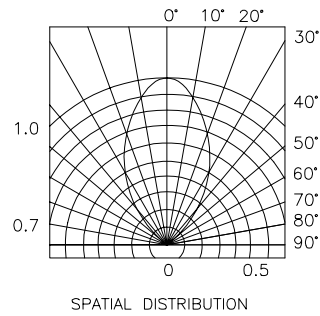
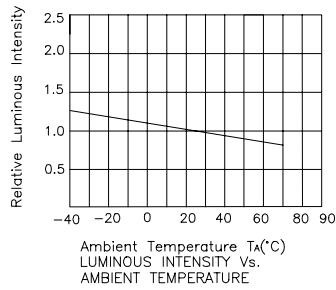
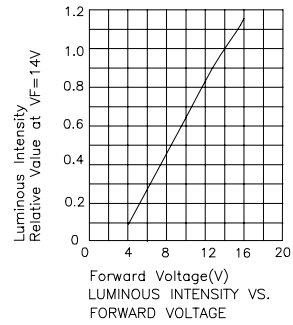
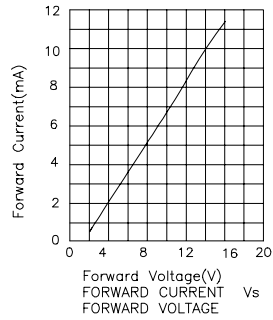


RELATIVE INTENSITY Vs. WAVELENGTH

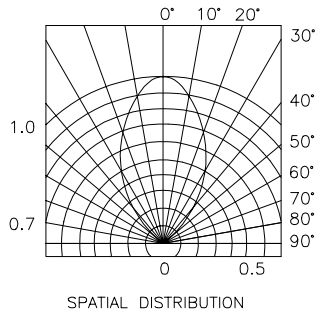
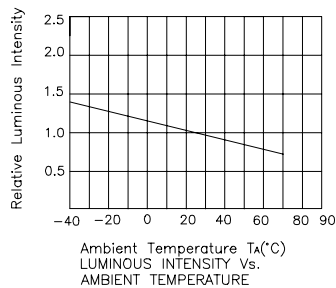
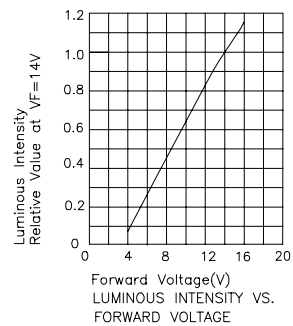
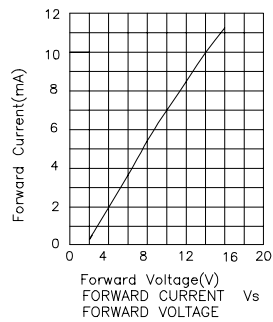
## High Efficiency Red L53ID14V



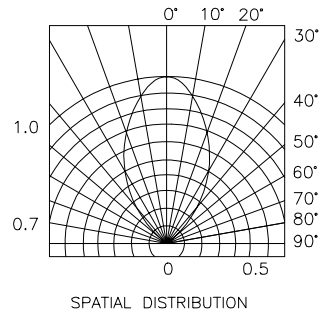
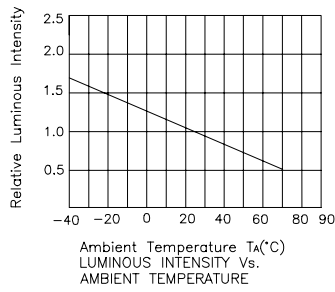
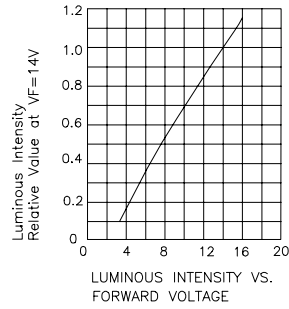
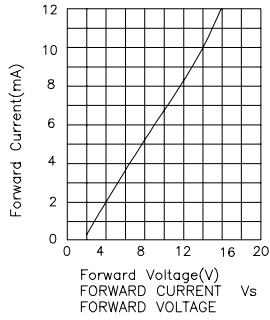
## Green L53GD14V



## Yellow L53YD14V



## Super Bright Red L53SRD14V



## Super Bright Green L53SGD14V

