

L53ID12V HIGH EFFICIENCY RED
 L53GD12V GREEN
 L53YD12V YELLOW
 L53SGD12V SUPER BRIGHT GREEN
 L53SRD12V SUPER BRIGHT RED

Features

- 12 VOLT SERIES IN T-1 PACKAGES.
- INTEGRAL CURRENT LIMITING RESISTOR.
- NO EXTERNAL CURRENT LIMITER REQUIRED WITH 12 VOLT SUPPLY.
- COST EFFECTIVE - SAVE SPACE AND RESISTOR COST.
- WIDE VIEWING ANGLE.
- AVAILABLE IN ALL COLORS.
- 12V INTERNAL RESISTOR.

Description

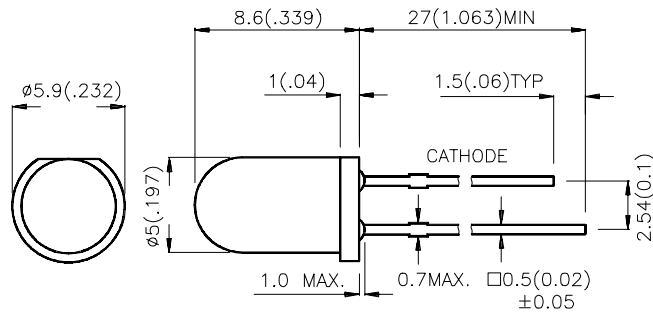
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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=12V		Viewing Angle
			Min.	Typ.	2θ1/2
L53ID12V	HIGH EFFICIENCY RED(GaAsP/GaP)	RED DIFFUSED	12	30	60°
L53GD12V	GREEN (GaP)	GREEN DIFFUSED	8	20	60°
L53YD12V	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	20	60°
L53SGD12V	SUPER BRIGHT GREEN(GaP)	GREEN DIFFUSED	8	20	60°
L53SRD12V	SUPER BRIGHT RED(GaAlAs)	RED DIFFUSED	100	180	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_A=25°C

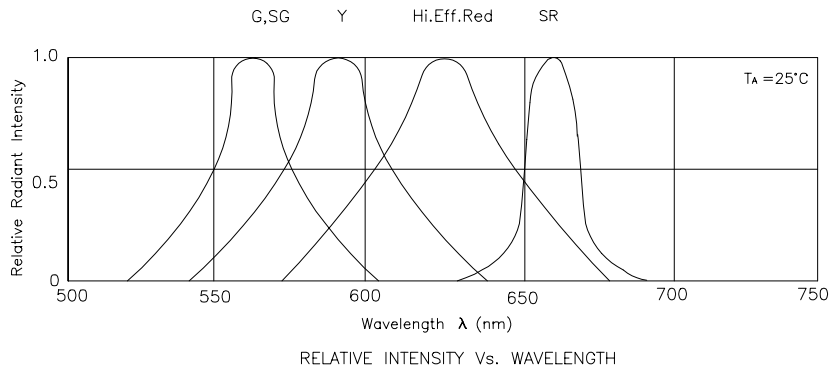
Symbol	Parameter	Device	Typ.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	627 565 590 660 565	nm	VF=12V
λ_D	Wavelength current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	625 568 588 640 568	nm	VF=12V
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	45 30 35 20 30	nm	VF=12V
I_F	Forward Current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	8.5 8.5 8.5 8.5 8.5	mA	VF=12V
I_R	Reverse Current	All	10	uA	VR = 5V

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

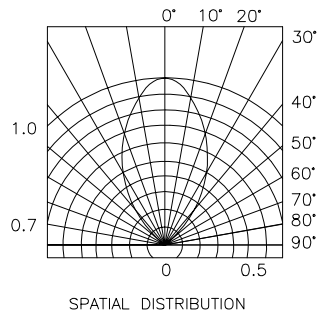
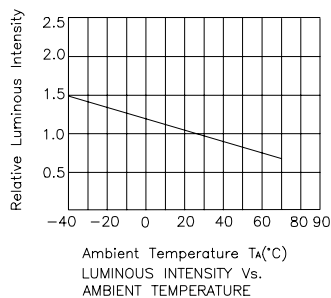
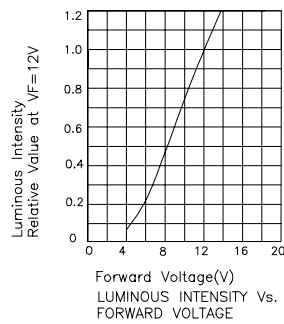
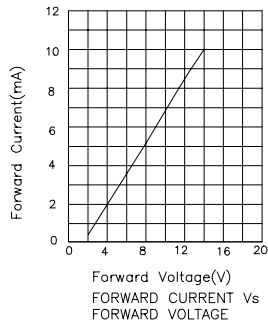
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	120	120	120	120	120	mW
Forward voltage (max)	14	14	14	14	14	mA
Reverse Voltage	5	5	5	5	5	V
Operating Temperature	-40 °C To +70 °C					
Storage Temperature	-40 °C To +85 °C					
Lead Solder Temperature [1]	260 °C For 5 Seconds					

Note:

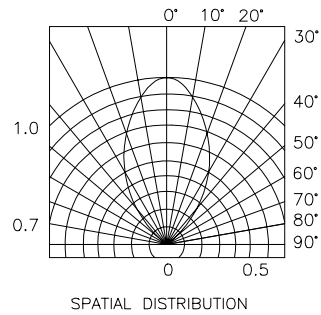
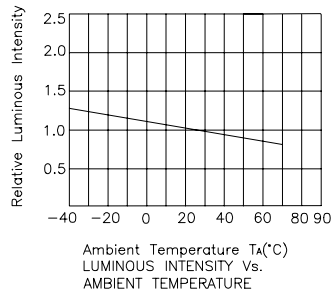
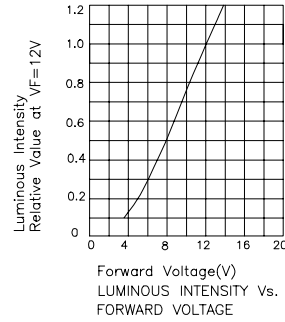
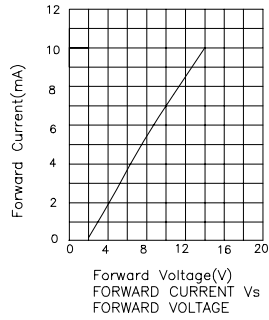
1. 4mm below package base.



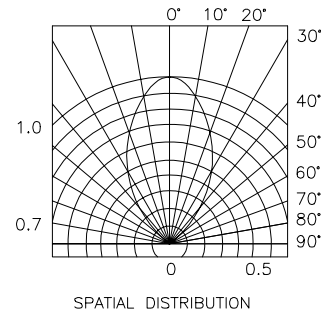
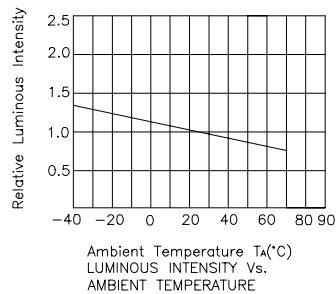
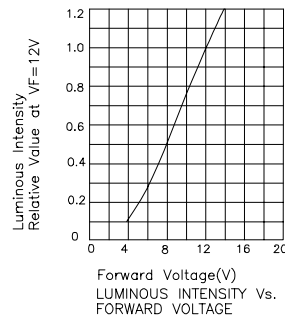
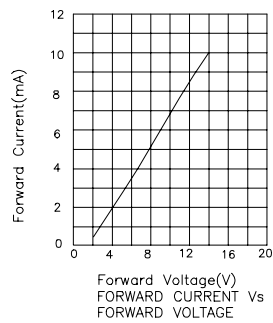
High Efficiency Red L53ID12V



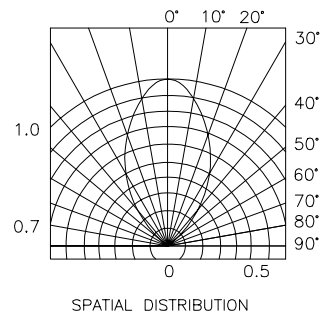
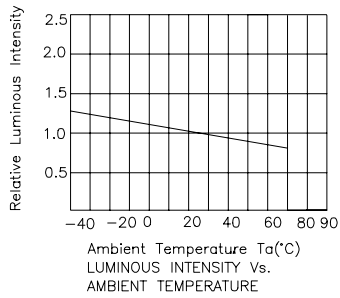
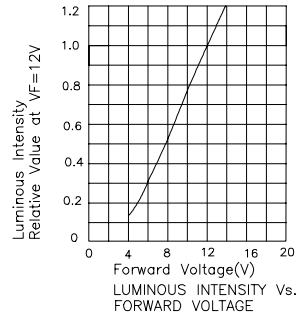
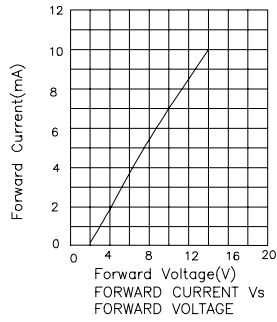
Green L53GD12V



Yellow L53YD12V



Super Bright Green L53SGD12V



Super Bright Red L53SRD12V

