

L-53ID-12V HIGH EFFICIENCY RED  
L-53GD-12V GREEN  
L-53YD-12V YELLOW  
L-53SGD-12V SUPER BRIGHT GREEN  
L-53SRD-12V 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

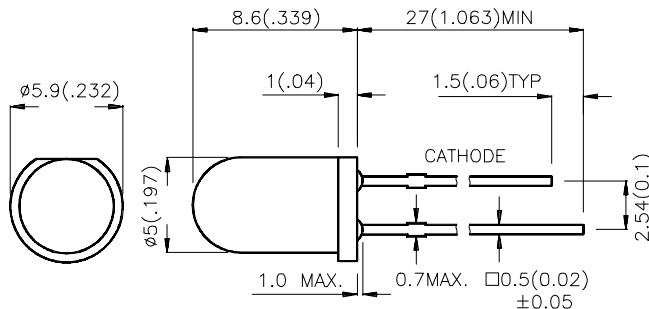
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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 ±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	I <sub>v</sub> (mcd) VF=12V		Viewing Angle
			Min.	Typ.	
L-53ID-12V	HIGH EFFICIENCY RED(GaAsP/GaP)	RED DIFFUSED	12	30	60°
L-53GD-12V	GREEN (GaP)	GREEN DIFFUSED	8	20	60°
L-53YD-12V	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	20	60°
L-53SGD-12V	SUPER BRIGHT GREEN(GaP)	GREEN DIFFUSED	8	20	60°
L-53SRD-12V	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<sub>A</sub>=25°C

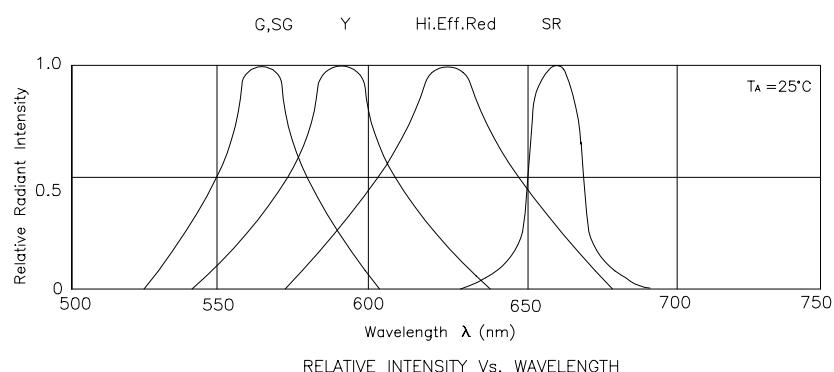
Symbol	Parameter	Device	Typ.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	627 565 590 660 565	nm	VF=12V
λD	Wavelength current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	625 568 588 640 568	nm	VF=12V
Δλ/2	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	45 30 35 20 30	nm	VF=12V
I <sub>F</sub>	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 <sub>R</sub>	Reverse Current	All	10	uA	VR = 5V

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

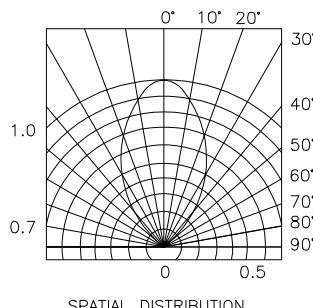
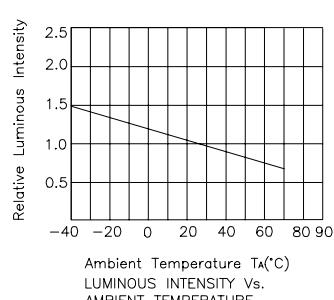
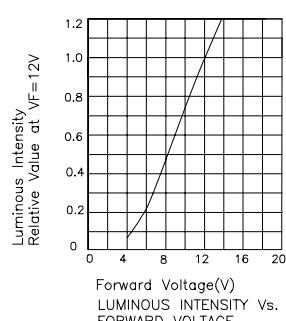
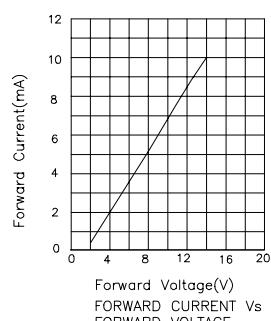
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	120	120	120	120	120	mW
Forward voltage (max)	14	14	14	14	14	V
Reverse Voltage	5	5	5	5	5	V
Operating Temperature				-40 °C To +70 °C		
Storage Temperature				-40 °C To +85 °C		
Lead Solder Temperature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

Note:

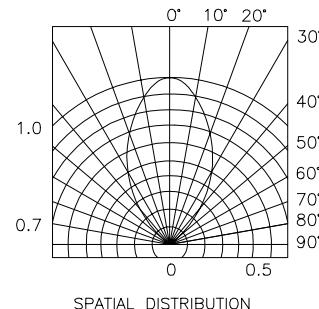
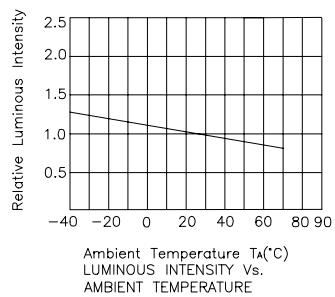
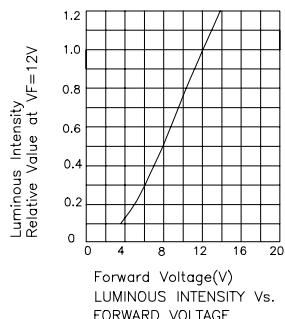
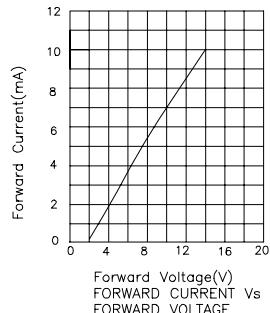
1. 4mm below package base.



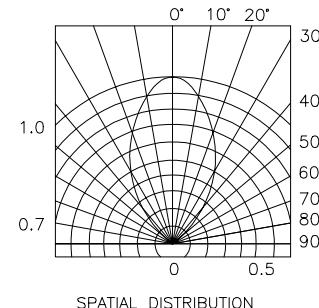
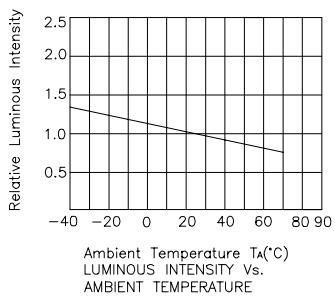
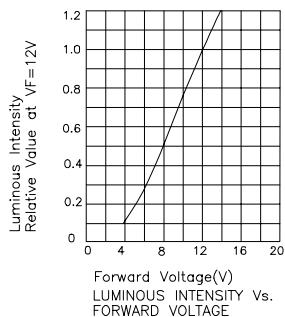
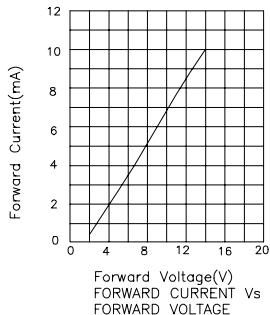
## High Efficiency Red L-53ID-12V



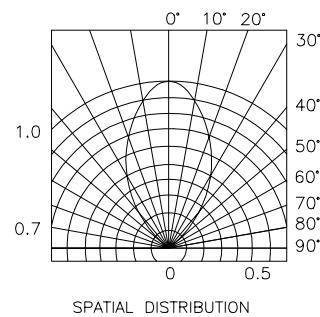
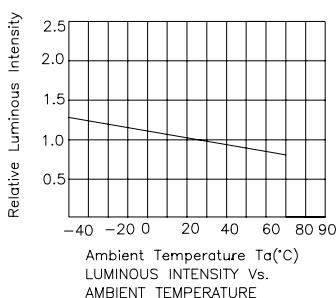
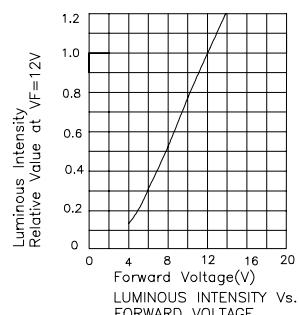
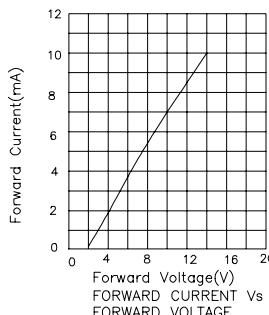
## Green L-53GD-12V



## Yellow L-53YD-12V



## Super Bright Green L-53SGD-12V



## Super Bright Red L-53SRD-12V

