

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

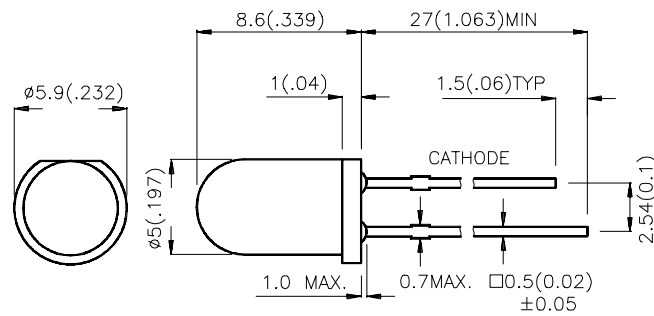
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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 $\pm 0.25(0.01)$ 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
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_A=25°C

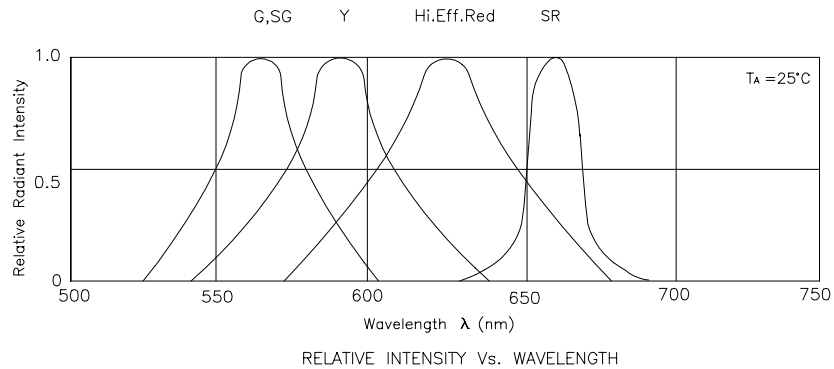
Symbol	Parameter	Device	Typ.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	627 565 590 660 565	nm	VF=12V
λ_D	Wavelength current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	625 568 588 640 568	nm	VF=12V
$\Delta\lambda_{1/2}$	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	μA	VR = 5V

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

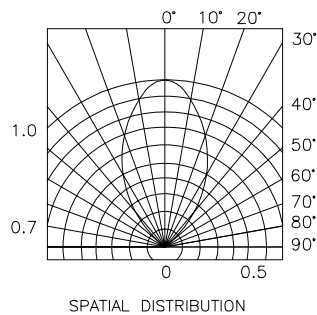
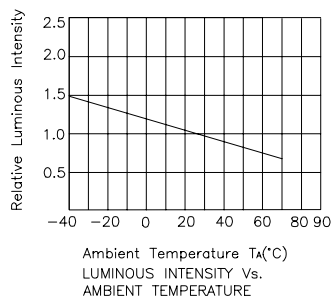
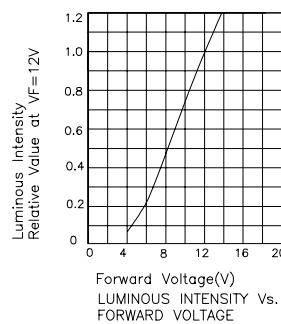
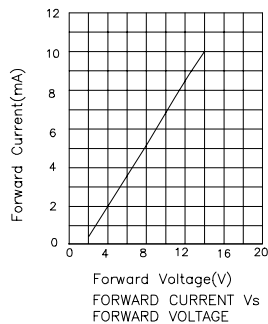
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	120	120	120	120	120	mW
Forward voltage (max)	14	14	14	14	14	V
Reverse Voltage	5	5	5	5	5	V
Operating Temperature	-40 °C To +70 °C					
Storage Temperature	-40 °C To +85 °C					
Lead Solder Temperature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

Note:

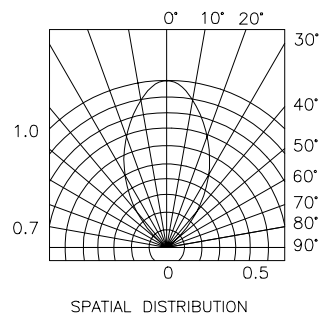
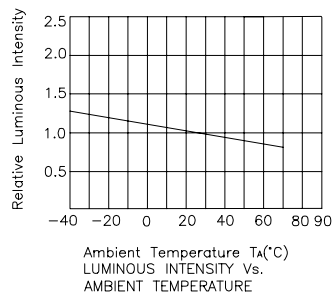
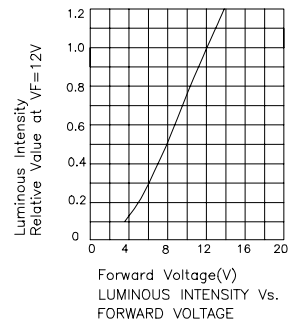
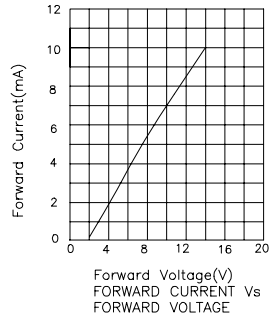
1. 4mm below package base.



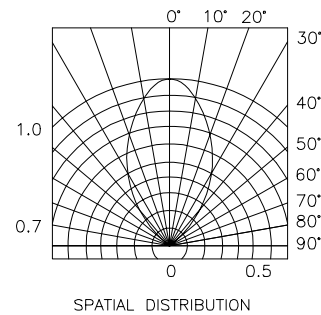
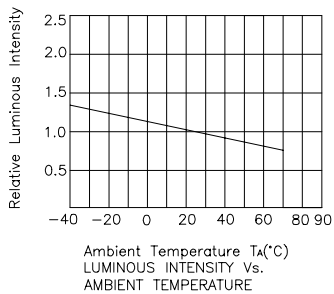
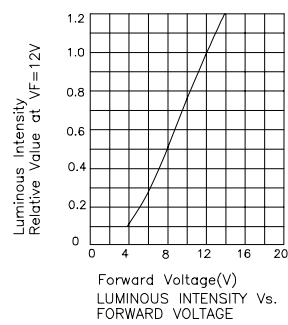
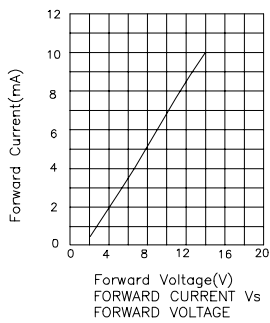
High Efficiency Red L-53ID-12V



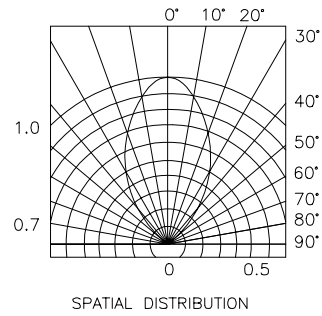
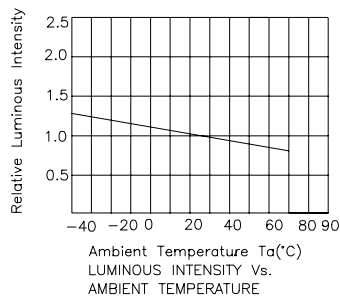
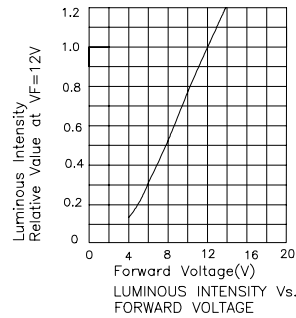
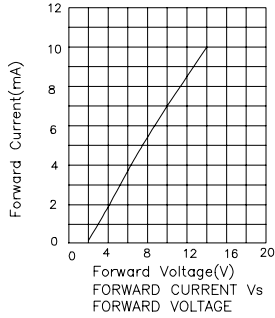
Green L-53GD-12V



Yellow L-53YD-12V



Super Bright Green L-53SGD-12V



Super Bright Red L-53SRD-12V

