

L-53ID-12V

HIGH EFFICIENCY RED

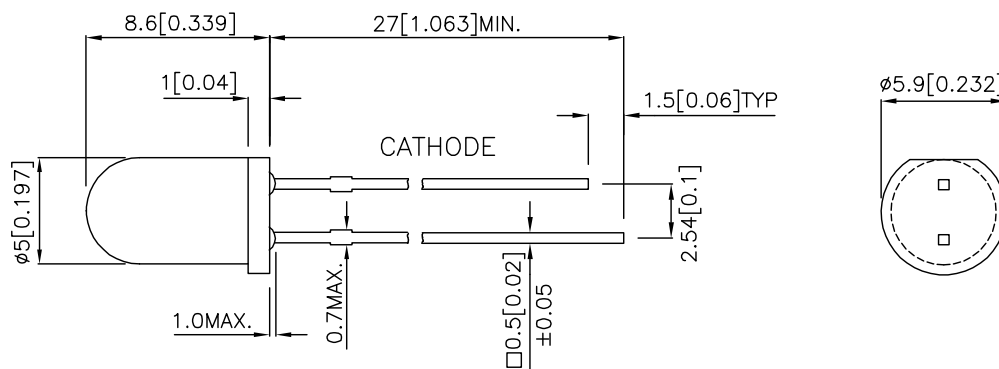
Features

- LOW POWER CONSUMPTION.
- POPULAR T-1 3/4 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.
- 12V INTERNAL RESISTOR.
- RoHS COMPLIANT.

Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange 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 leads emerge from the package.
4. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) V= 12V		Viewing Angle
			Min.	Typ.	θ1/2
L-53ID-12V	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	12	30	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 TA=25°C

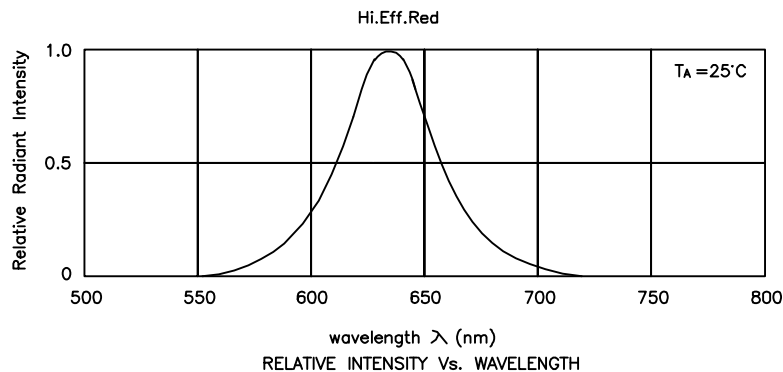
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red	627		nm	VF=12V
λ_D	Dominant Wavelength	High Efficiency Red	625		nm	VF=12V
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red	45		nm	VF=12V
IF	Forward Current	High Efficiency Red	8.5	11.5	mA	VF=12V
IR	Reverse Current	High Efficiency Red		10	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

Parameter	High Efficiency Red	Units
Power dissipation	120	mW
Forward Voltage	14	V
Reverse Voltage	5	V
Operating Temperature	-40°C To +70°C	
Storage Temperature	-40°C To +85°C	
Lead Solder Temperature[1]	260°C For 3 Seconds	
Lead Solder Temperature[2]	260°C For 5 Seconds	

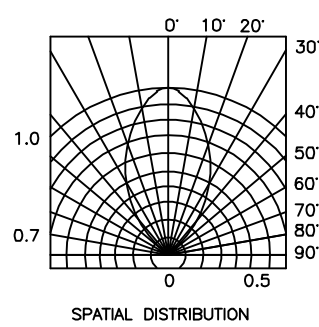
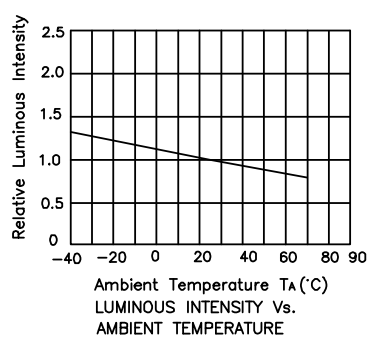
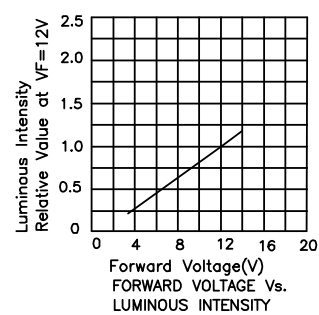
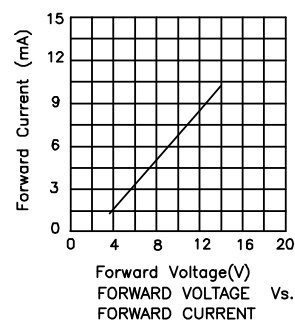
Notes:

1. 2mm below package base.
2. 5mm below package base.



High Efficiency Red

L-53ID-12V



Remarks:

If special sorting is required (e.g. binning based on luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: $\pm 1\text{nm}$
2. Luminous Intensity: $\pm 15\%$

Note: Accuracy may depend on the sorting parameters.