P/N: L-53SRD-12V SUPER BRIGHT RED

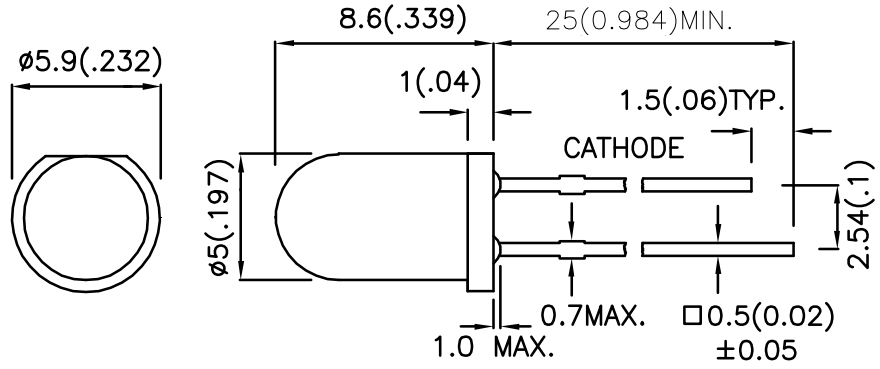
Features

- ●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 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 leads emerge from the package.
4. Specifications are subject to change without notice.

Kingbright

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] V=12V		Viewing Angle [1]
			Min.	Typ.	2 θ 1/2
L-53SRD-12V	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	110	180	60°

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous Intensity / Luminous Flux: +/-15%.

Electrical / Optical Characteristics at T_A=25°C

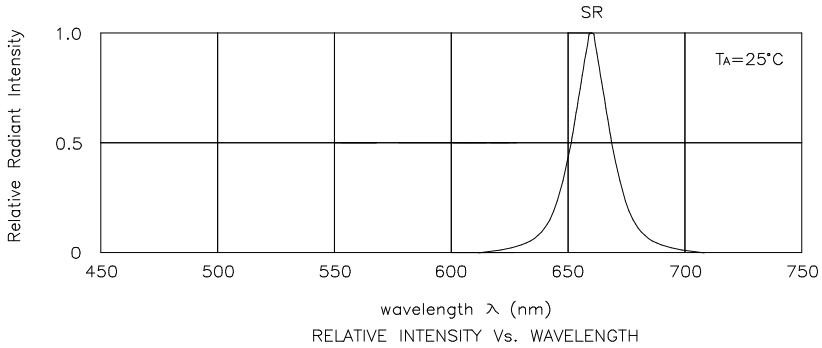
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Red	660		nm	V_F=12V
λD [1]	Dominant Wavelength	Super Bright Red	640		nm	V_F=12V
Δλ1/2	Spectral Line Half-width	Super Bright Red	20		nm	V_F=12V
I_F	Forward Current	Super Bright Red	8.5	11.5	mA	V_F=12V
I_R	Reverse Current	Super Bright Red		10	uA	V_R= 5V

Note:
1. Wavelength: +/-1nm.

Absolute Maximum Ratings at T_A=25°C

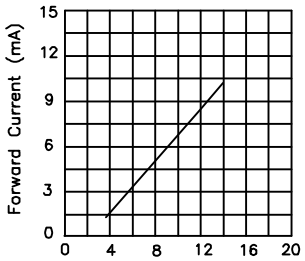
Parameter	Super Bright Red	Units
Power dissipation	120	mW
Forward Voltage	14	V
Reverse Voltage	5	V
Operating Temperature	-40°C To +70°C	
Storage Temperature	-40°C To +85°C	
Lead Solder Temperature[1]	260°C For 3 Seconds	
Lead Solder Temperature[2]	260°C For 5 Seconds	

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

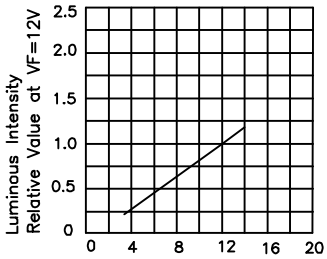


RELATIVE INTENSITY Vs. WAVELENGTH

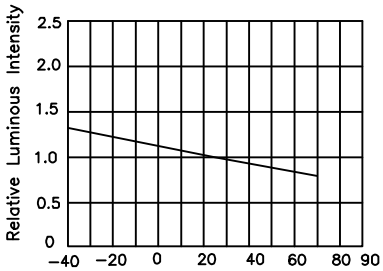
Super Bright Red **L-53SRD-12V**



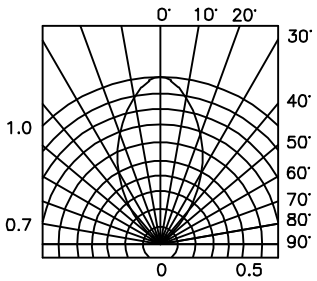
FORWARD VOLTAGE Vs. FORWARD CURRENT



FORWARD VOLTAGE Vs. LUMINOUS INTENSITY



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION