637-178

Kingbright®

T-1 3/4 (5mm) SUPER BRIGHT LED LAMPS

L-53SG SUPER BRIGHT GREEN

L-53SR SUPER BRIGHT RED

Features

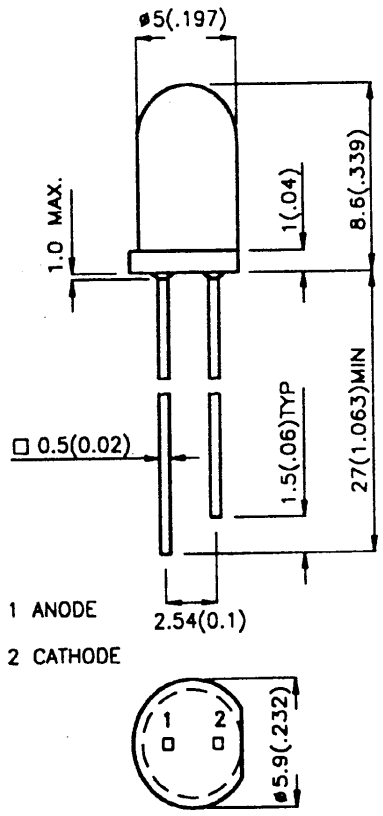
- ULTRA BRIGHTNESS.
- BOTH DIFFUSED AND WATER CLEAR LENS ARE AVAILABLE.
- OUTSTANDING MATERIAL EFFICIENCY.
- RELIABLE AND RUGGED.
- IC COMPATIBLE/LOW CURRENT CAPABILITY.

Description

The Super Bright Green source color devices are made with Gallium Phosphide Green 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 subjected to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle 2θ1/2
			Min.	Max.	
L-53SGC	SUPER BRIGHT GREEN (GaP)	WATER CLEAR	100	300	30°
L-53SRC-A L-53SRC-B L-53SRC-C L-53SRC-DU L-53SRC-DV L-53SRC-DW L-53SRC-E	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	300 400 500 1000 1300 1600 2000	400 500 1000 1300 1600 2000 3500	
L-53SGD	SUPER BRIGHT GREEN (GaP)	GREEN DIFFUSED	20	60	60°
L-53SRD-B L-53SRD-C L-53SRD-D L-53SRD-E L-53SRD-F L-53SRD-G	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	90 110 200 300 500 700	110 200 300 500 700 1000	

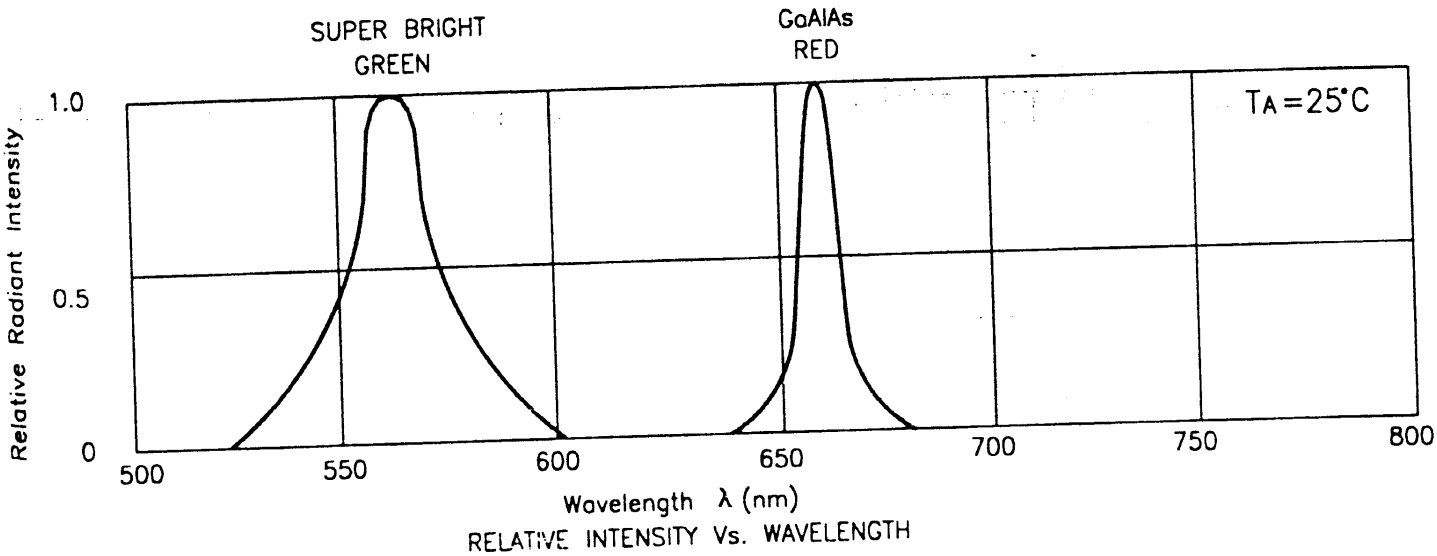
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Green Super Bright Red	565 660		nm	IF=20mA
Δλ1/2	Spectral Line Halfwidth	Super Bright Green Super Bright Red	30 20		nm	IF=20mA
C	Capacitance	Super Bright Green Super Bright Red	45 95		pF	VF=0V;f=1MHz
V_F	Forward Voltage	Super Bright Green Super Bright Red	2.2 1.85	2.5 2.5	V	IF=20mA
I_R	Reverse Current	All	10		uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

Parameter	Super Bright Green	Super Bright Red	Units
Power dissipation	105	100	mW
DC Forward Current	25	30	mA
Peak Forward Current [1]	150	150	mA
Reverse Voltage	5	5	V
Operating/Storage Temperature	-40°C To +85°C		
Lead Soldering Temperature [2]	260°C For 5 Seconds		

Notes:
1. $\tau \leq 10\mu s$.
2. 4mm below package base.



RELATIVE INTENSITY Vs. WAVELENGTH