

Kingbright®

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

L-1543SG SUPER BRIGHT GREEN

L-1543SR SUPER BRIGHT RED

Features

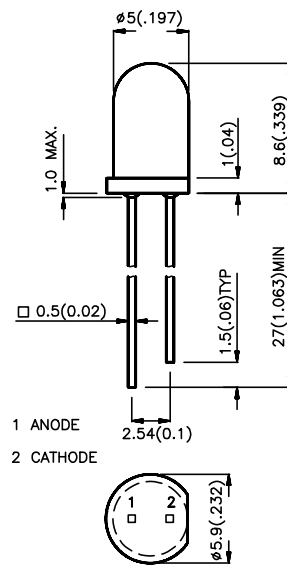
- ULTRA BRIGHTNESS.
- WIDE VIEWING ANGLE.
- WATER CLEAR LENS.
- OUTSTANDING MATERIAL EFFICIENCY.
- RELIABLE AND RUGGED.
- IC COMPATIBLE/LOW CURRENT CAPABILITY.

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 $\pm 0.25(0.01)$ 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		Viewin Angle 2ϕ1/2
			Min.	Max.	
L-1543SGC	SUPER BRIGHT GREEN (GaP)	WATER CLEAR	70	300	50°
L-1543SRC-A	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	150	250	50°
L-1543SRC-B			250	350	50°
L-1543SRC-C			350	450	50°
L-1543SRC-D			450	600	50°
L-1543SRC-E			1000	2500	50°

Note:

1. $\phi 1/2$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

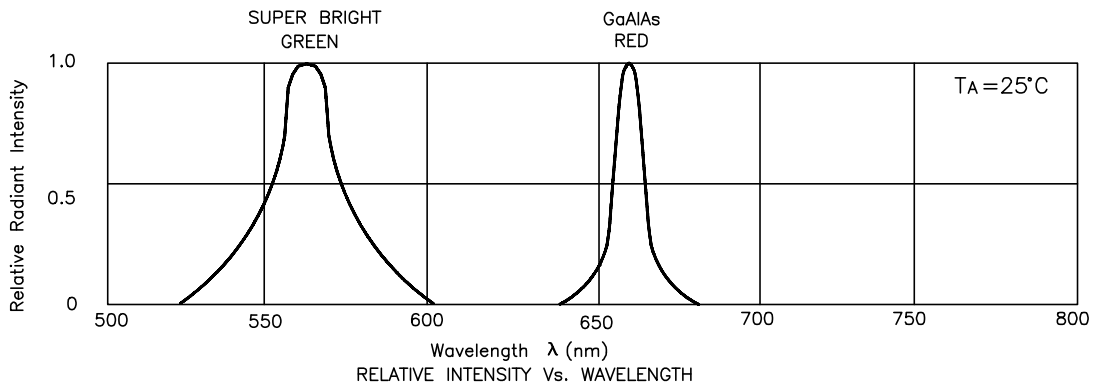
Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Super Bright Green Super Bright Red	565 660		nm	IF=20mA
$\Delta\lambda_{1/2}$	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

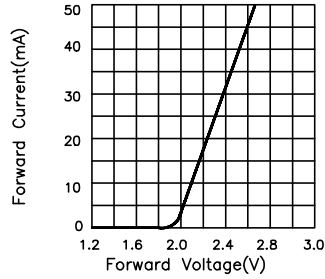
Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

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		

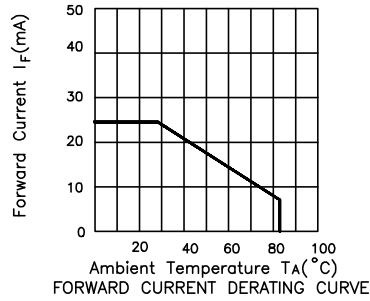
Notes:
 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
 2. 4mm below package base.



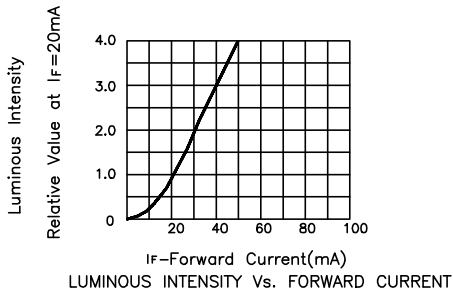
Super Bright Green L-1543SGC



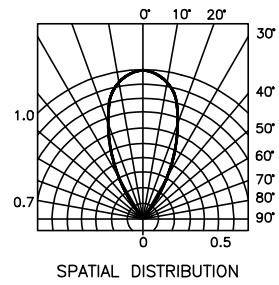
FORWARD CURRENT Vs. FORWARD VOLTAGE



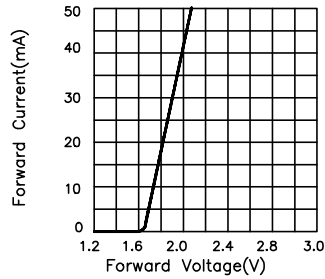
FORWARD CURRENT DERATING CURVE



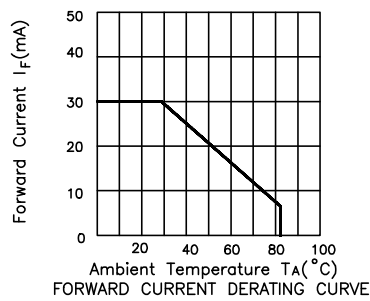
LUMINOUS INTENSITY Vs. FORWARD CURRENT



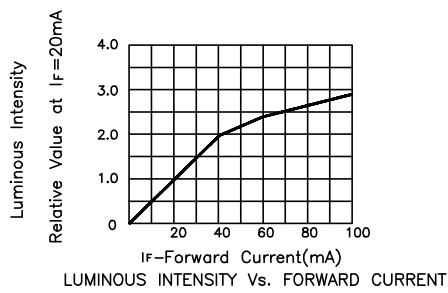
Super Bright Red L-1543SRC



FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

