L53SRC/x SUPER BRIGHT RED

L53SRD/x SUPER BRIGHT RED

Features

●ULTRA BRIGHTNESS.

●BOTH DIFFUSED AND WATER CLEAR LENS ARE AVAILABLE.

●OUTSTANDING MATERIAL EFFICIENCY.

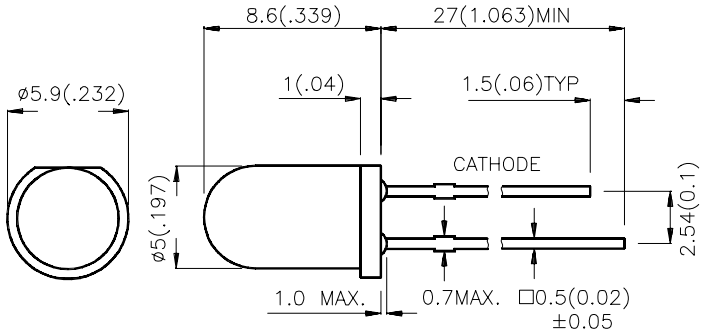
●RELIABLE AND RUGGED.

●IC COMPATIBLE/LOW CURRENT CAPABILITY.

Description

The Super Bright 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 subject to change without notice.

Kingbright

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	2θ1/2
L53SRC/DU	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	1000	1200	30°
L53SRC/DV			1300	1500	
L53SRC/DW			1600	1800	
L53SRC/E			2000	2800	
L53SRC/F			3500	4000	
L53SRD/D	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	200	250	60°
L53SRD/E			300	400	
L53SRD/F			500	600	
L53SRD/G			700	900	
L53SRD/H			1000	1500	

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

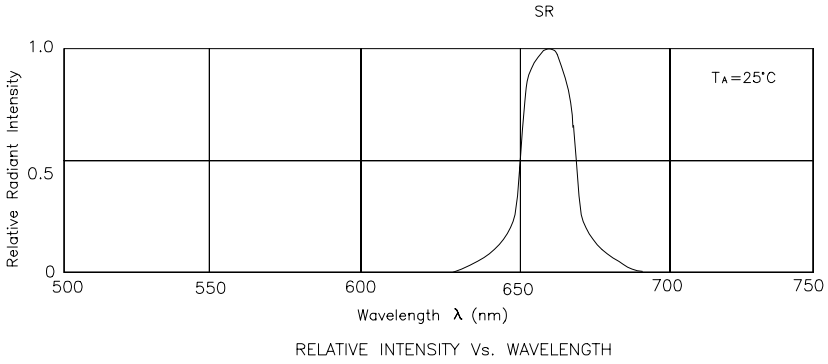
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Red	660		nm	IF=20mA
λ D	Dominate Wavelength	Super Bright Red	640		nm	IF=20mA
Δλ1/2	Spectral Line Halfwidth	Super Bright Red	20		nm	IF=20mA
C	Capacitance	Super Bright Red	45		pF	VF=0V;f=1MHz
V_F	Forward Voltage	Super Bright Red	1.85	2.5	V	IF=20mA
I_R	Reverse Current	Super Bright Red		10	uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

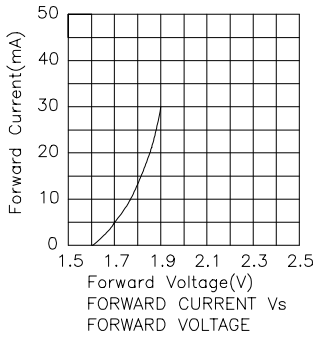
Parameter	Super Bright Red	Units
Power dissipation	100	mW
DC Forward Current	30	mA
Peak Forward Current [1]	155	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 5 Seconds	

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

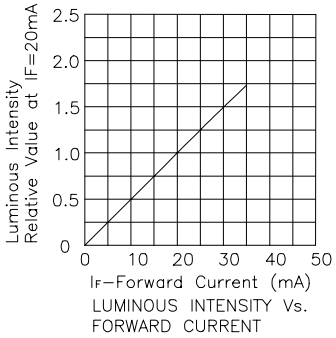


RELATIVE INTENSITY Vs. WAVELENGTH

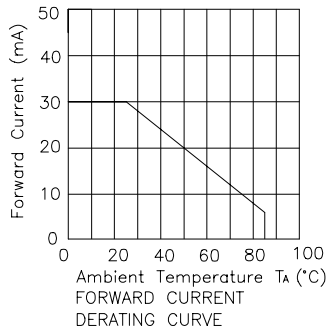
Super Bright Red L53SRD/x,L53SRC/x



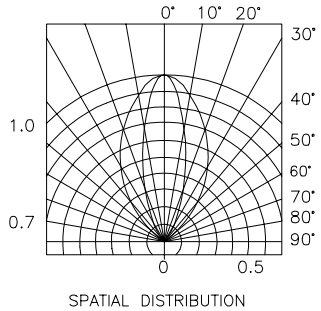
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



SPATIAL DISTRIBUTION