

L793SRC/x SUPER BRIGHT RED

L793SRD/x SUPER BRIGHT RED

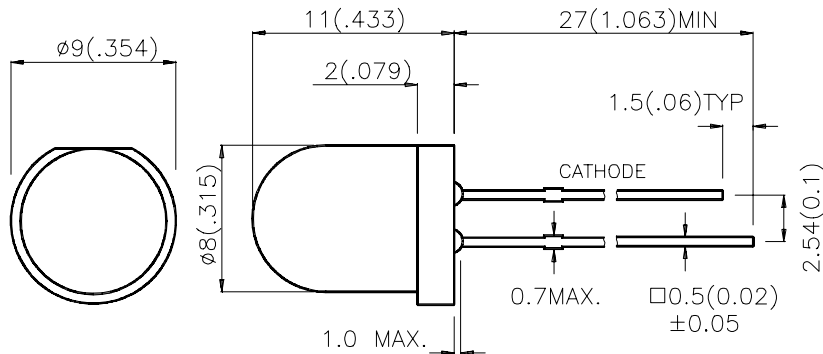
### Features

- ULTRA BRIGHTNESS.
- 8mm DIAMETER BIG LAMP.
- WIDE VIEWING ANGLE.
- I.C. COMPATIBLE.
- BOTH DIFFUSED AND WATER CLEAR LENS ARE AVAILABLE.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.

### 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  $\pm 0.25(0.01)$  unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	θ1/2
L793SRC/C	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	1000	1500	40°
L793SRC/D			1600	1800	40°
L793SRC/E			2000	2800	40°
L793SRC/F			3000	3800	40°
L793SRD/C	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	200	300	60°
L793SRD/D			350	400	60°
L793SRD/E			450	500	60°
L793SRD/F			550	600	60°
L793SRD/G			650	700	60°
L793SRD/H			800	1200	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 T<sub>A</sub>=25°C

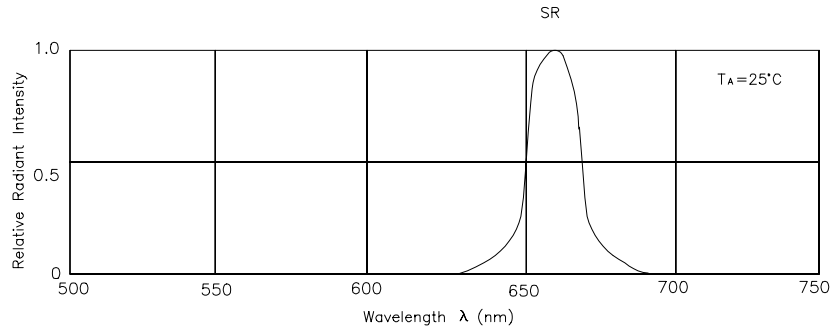
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	Super Bright Red	660		nm	IF=20mA
$\lambda_D$	Dominate Wavelength	Super Bright Red	640		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Super Bright Red	20		nm	IF=20mA
C	Capacitance	Super Bright Red	45		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub>	Forward Voltage	Super Bright Red	1.85	2.5	V	IF=20mA
I <sub>R</sub>	Reverse Current	Super Bright Red		10	μA	V <sub>R</sub> = 5V

## Absolute Maximum Ratings at T<sub>A</sub>=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	

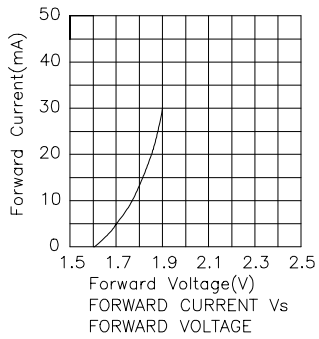
Notes:

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

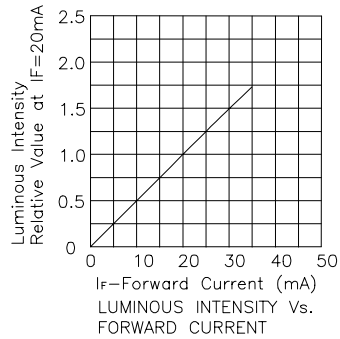


RELATIVE INTENSITY Vs. WAVELENGTH

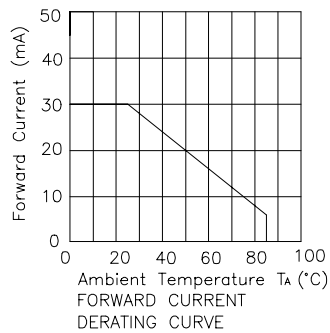
## Super Bright Red L793SRC/x, L793SRD/x



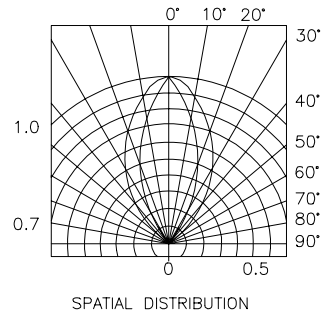
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



SPATIAL DISTRIBUTION