

8mm LEDs

Order code	Manufacturer code	Description
55-0415	L-793SRD-C	8MM 350MCD SUPERBRIGHT RED LED (RC)
55-0420	L-793SRD-D	8MM 450MCD SUPERBRIGHT RED LED (RC)
55-0435	L-793SRC-C	8MM 1600MCD ULTRABRIGHT RED (RC)
55-0440	L-793SRC-D	8MM 2000MCD ULTRABRIGHT RED (RC)
72-8994	n/a	SUPER BRIGHT LED - 8MM RED (RC)
72-8996	n/a	SUPER BRIGHT LED - 8MM RED. (RC)

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The enclosed information is believed to be correct, Information may change without notice due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 20/02/2007

Kingbright®

8mm SUPER BRIGHT BIG LAMPS

L-793SR SUPER BRIGHT RED

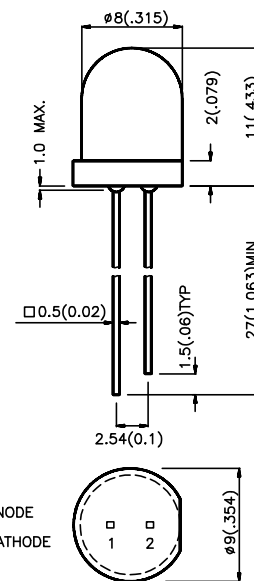
Features

- 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 subjected to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle 2 θ 1/2
			Min.	Max.	
L-793SRC-B	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	500	1000	40°
L-793SRC-C			1000	1600	40°
L-793SRC-D			1600	2000	40°
L-793SRC-E			2000	3000	40°
L-793SRD-B		RED DIFFUSED	120	200	60°
L-793SRD-C			200	350	60°
L-793SRD-D			350	450	60°
L-793SRD-E			450	550	60°
L-793SRD-F			550	650	60°
L-793SRD-G			650	800	60°

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

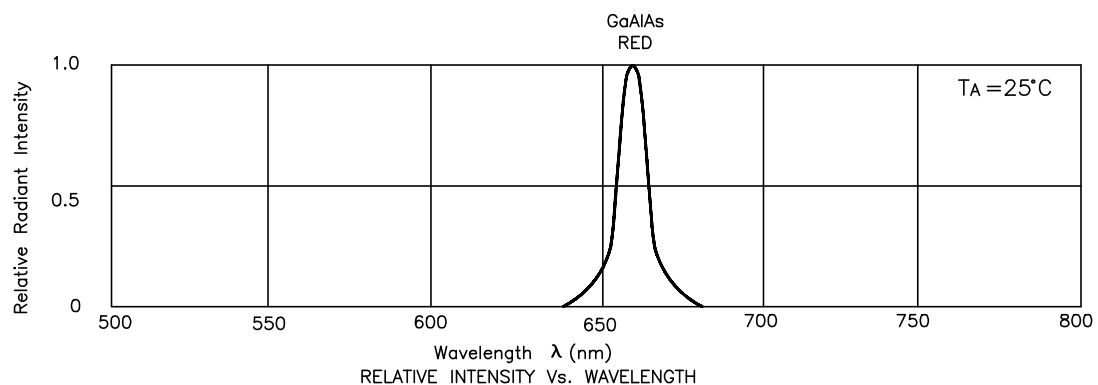
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Super Bright Red	660		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Super Bright Red	20		nm	IF=20mA
C	Capacitance	Super Bright Red	95		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

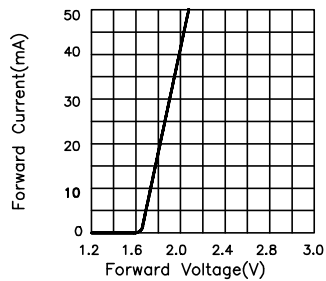
Absolute Maximum Ratings T_A=25°C

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

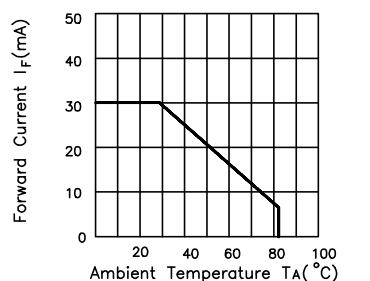
Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



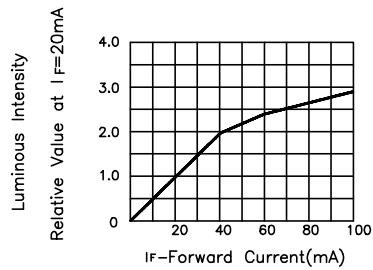
Super Bright Red L-793SRC / L-793SRD



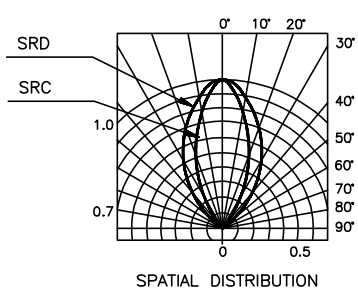
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION