

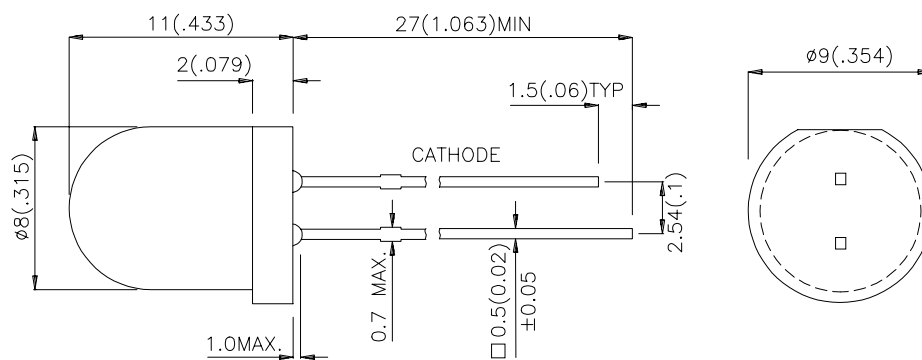
## Features

- 8mm DIAMETER BIG LAMP.
- WIDE VIEWING ANGLE.
- I.C. COMPATIBLE.
- 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)<br>@ 20 mA |      | Viewing<br>Angle |
|-----------|--------------------------|--------------|---------------------|------|------------------|
|           |                          |              | Min.                | Typ. | 2θ1/2            |
| W793SRD/E | SUPER BRIGHT RED(GaAlAs) | RED DIFFUSED | 380                 | 450  | 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

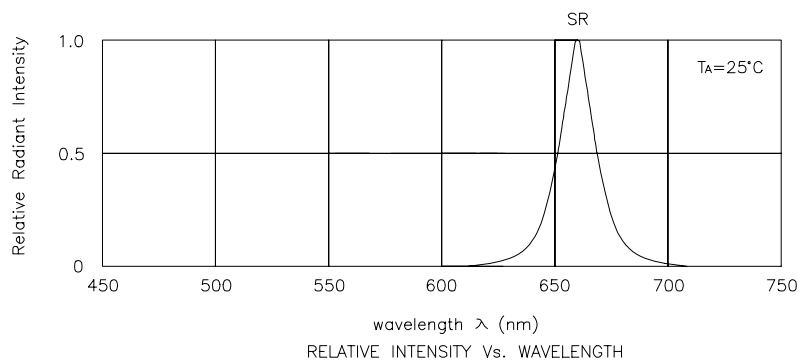
| Symbol            | Parameter                | Device           | Typ. | Max. | Units | Test Conditions           |
|-------------------|--------------------------|------------------|------|------|-------|---------------------------|
| λ <sub>peak</sub> | Peak Wavelength          | Super Bright Red | 660  |      | nm    | I <sub>F</sub> =20mA      |
| λ <sub>D</sub>    | Dominate Wavelength      | Super Bright Red | 640  |      | nm    | I <sub>F</sub> =20mA      |
| Δλ <sub>1/2</sub> | Spectral Line Half-width | Super Bright Red | 20   |      | nm    | I <sub>F</sub> =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     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>    | Reverse Current          | Super Bright Red |      | 10   | uA    | 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. 2mm below package base.



## Super Bright Red

### W793SRD/E

