

WP793SRD/E

SUPER BRIGHT RED

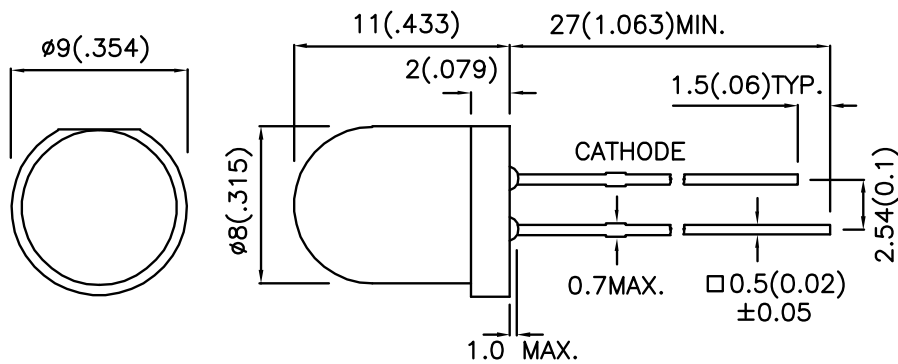
### Features

- 8mm DIAMETER BIG LAMP.
- WIDE VIEWING ANGLE.
- I.C.COMPATIBLE.
- RELIABLE AND RUGGED.
- LONG LIFE-SOLID STATE RELIABILITY.
- RoHS COMPLIANT.

### 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 leads emerge from the package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No.   | Dice                      | Lens Type    | Iv (mcd)<br>@ 20mA |      | Viewing<br>Angle |
|------------|---------------------------|--------------|--------------------|------|------------------|
|            |                           |              | Min.               | Typ. | 2 θ 1/2          |
| WP793SRD/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 TA=25°C

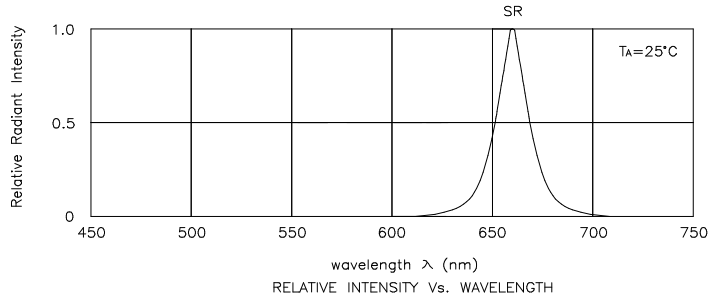
| Symbol                | Parameter                | Device           | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|------------------|------|------|-------|-----------------|
| $\lambda_{peak}$      | Peak Wavelength          | Super Bright Red | 660  |      | nm    | IF=20mA         |
| $\lambda_D$           | Dominant Wavelength      | Super Bright Red | 640  |      | nm    | IF=20mA         |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Super Bright Red | 20   |      | nm    | IF=20mA         |
| C                     | Capacitance              | Super Bright Red | 45   |      | pF    | VF=0V;f=1MHz    |
| VF                    | Forward Voltage          | Super Bright Red | 1.85 | 2.5  | V     | IF=20mA         |
| IR                    | Reverse Current          | Super Bright Red |      | 10   | uA    | VR = 5V         |

## Absolute Maximum Ratings at TA=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 3 Seconds |       |
| Lead Solder Temperature [3]   | 260°C For 5 Seconds |       |

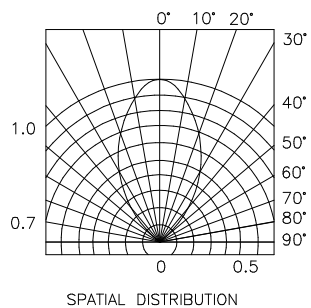
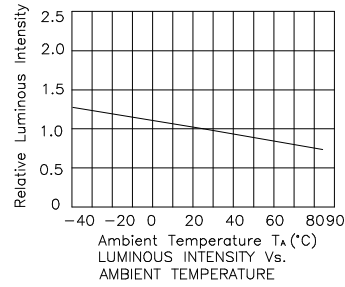
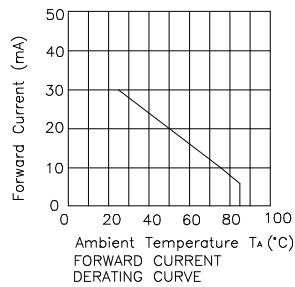
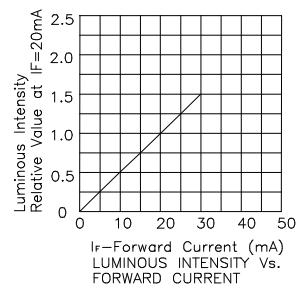
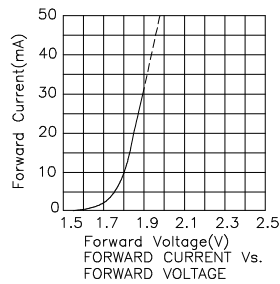
Notes:

- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.
- 5mm below package base.



## Super Bright Red

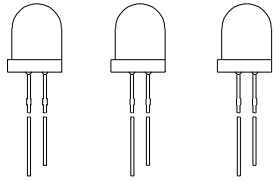
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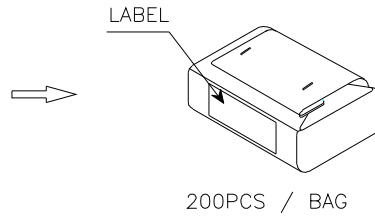
# Kingbright

## PACKING & LABEL SPECIFICATIONS

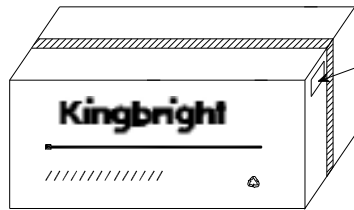
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P/N: WP793SRD/E

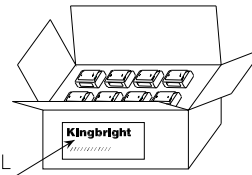


200PCS / BAG




12.8K / 9# BOX

OUTSIDE LABEL



OUTSIDE LABEL

1.6K / 1# BOX

|                   |   |
|-------------------|---|
| <b>Kingbright</b> |   |
| Q.C.              | QC<br>xx xx xxxx<br>PASSED  |
| TYPE NO :         | WP793SRD/E  |
| QUANTITY :        | 200 pcs   |
| S/N :             | XXX CODE: XX  |
| LOT NO            | <br>xxxxxxxxxxxx |
| RoHS Compliant    |   |

**Remarks:**

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.