

L-53SRC-x SUPER BRIGHT RED

L-53SRD-x SUPER BRIGHT RED

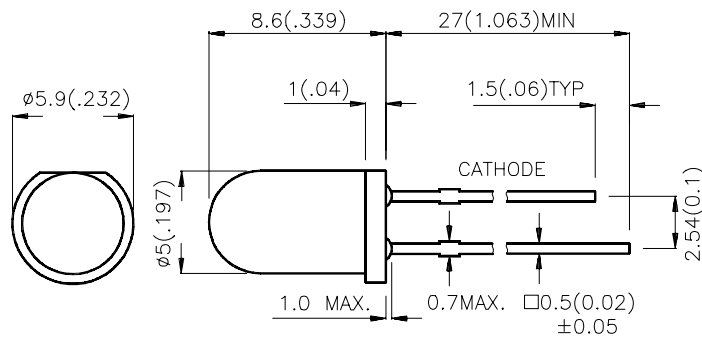
### Features

- 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  $\pm 0.25 (0.01)$  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            |
| L-53SRC-DU | SUPER BRIGHT RED (GaAlAs) | WATER CLEAR  | 1000                | 1200 | 30°              |
| L-53SRC-DV |                           |              | 1300                | 1500 |                  |
| L-53SRC-DW |                           |              | 1600                | 1800 |                  |
| L-53SRC-E  |                           |              | 2000                | 2800 |                  |
| L-53SRC-F  |                           |              | 3500                | 4000 |                  |
| L-53SRD-D  | SUPER BRIGHT RED (GaAlAs) | RED DIFFUSED | 200                 | 250  | 60°              |
| L-53SRD-E  |                           |              | 300                 | 400  |                  |
| L-53SRD-F  |                           |              | 500                 | 600  |                  |
| L-53SRD-G  |                           |              | 700                 | 900  |                  |
| L-53SRD-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<sub>A</sub>=25°C

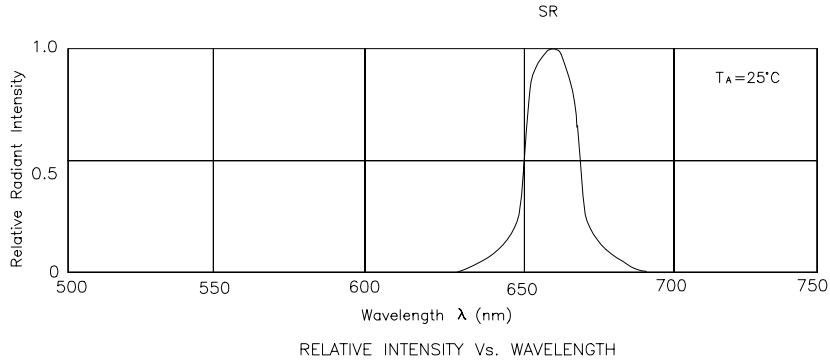
| Symbol            | Parameter               | Device           | Typ. | Max. | Units | Test Conditions |
|-------------------|-------------------------|------------------|------|------|-------|-----------------|
| λ <sub>peak</sub> | Peak Wavelength         | Super Bright Red | 660  |      | nm    | IF=20mA         |
| λ <sub>D</sub>    | Dominate Wavelength     | Super Bright Red | 640  |      | nm    | IF=20mA         |
| Δλ <sub>1/2</sub> | Spectral Line Halfwidth | Super Bright Red | 20   |      | nm    | IF=20mA         |
| C                 | Capacitance             | Super Bright Red | 45   |      | pF    | VF=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    | VR = 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:

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



## Super Bright Red L-53SRD-x,L-53SRC-x

