

L53SRD12V SUPER BRIGHT RED

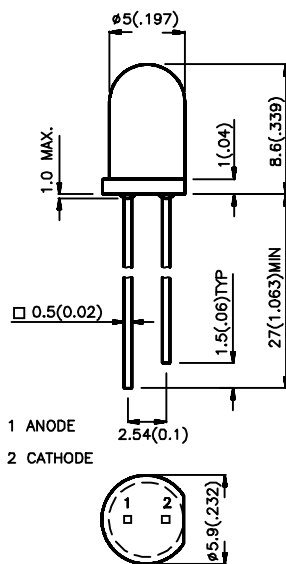
### Features

- HIGH INTENSITY.
- LOW POWER CONSUMPTION.
- POPULAR T-1 3/4 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.
- 12V INTERNAL RESISTOR.

### 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)<br>V=12V |      | Viewing Angle |
|-----------|---------------------------|--------------|-------------------|------|---------------|
|           |                           |              | Min.              | Typ. | 2θ1/2         |
| L53SRD12V | SUPER BRIGHT RED (GaAlAs) | RED DIFFUSED | 100               | 180  | 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

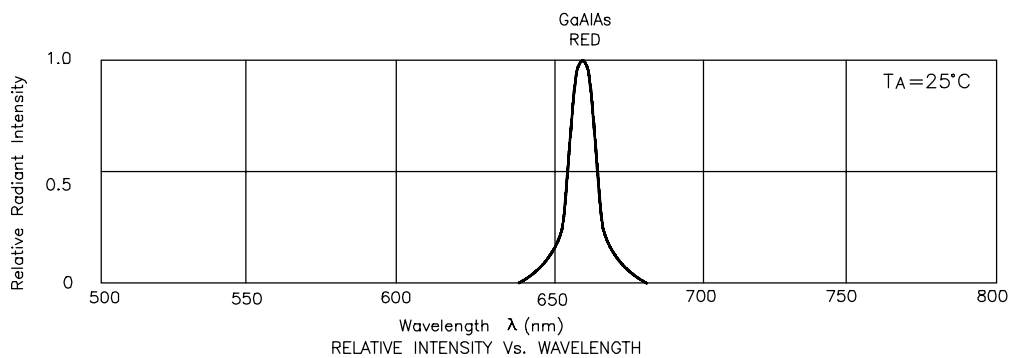
| Symbol            | Parameter               | Device           | Typ. | Max. | Units | Test Conditions |
|-------------------|-------------------------|------------------|------|------|-------|-----------------|
| λ <sub>peak</sub> | Peak Wavelength         | Super Bright Red | 660  |      | nm    | VF=12V          |
| λ <sub>D</sub>    | Dominant Wavelength     | Super Bright Red | 640  |      | nm    | VF=12V          |
| Δλ <sub>1/2</sub> | Spectral Line Halfwidth | Super Bright Red | 20   |      | nm    | VF=12V          |
| I <sub>F</sub>    | Forward Current         | Super Bright Red | 8.5  |      | mA    | VF=12V          |
| I <sub>R</sub>    | Reverse Current         | All              |      | 10   | μA    | VR =5V          |

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

| Parameter                  | Super Bright Red    | Units |
|----------------------------|---------------------|-------|
| Power dissipation          | 120                 | mW    |
| DC Forward Voltage         | 14                  | V     |
| Reverse Voltage            | 5                   | V     |
| Operation Temperature      | -40°C To +70°C      |       |
| Storage Temperature        | -40°C To +85°C      |       |
| Lead Solder Temperature[1] | 260°C For 5 Seconds |       |

Notes:

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



## Super Bright Red L53SRD12V

