

APBL3025SRSGCPR-F01

SUPER BRIGHT RED

SUPER BRIGHT GREEN

### Features

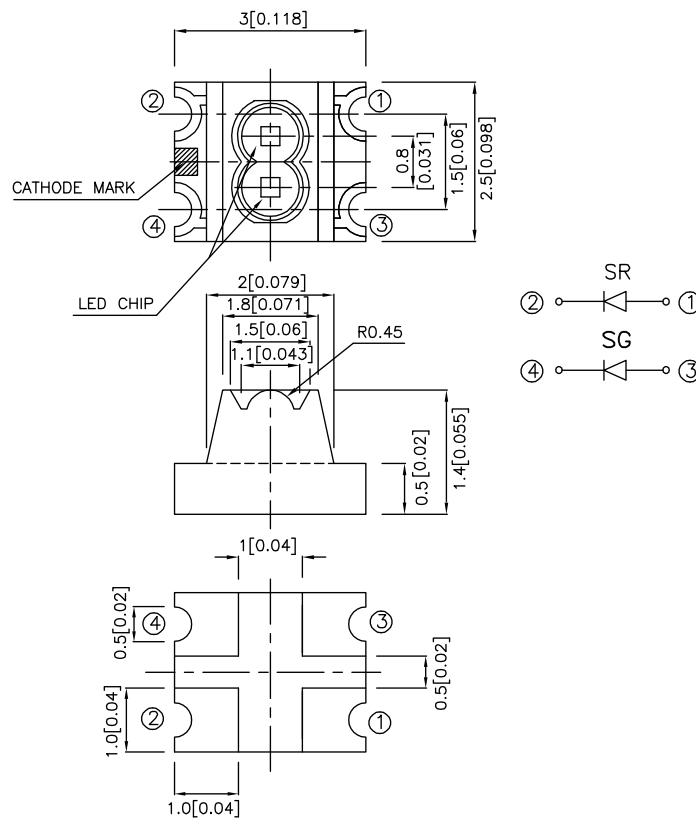
- 3.0mmx2.5mm SMT LED, 1.4mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACK LIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- INNER LENS TYPE
- PACKAGE : 2000PCS / REEL.
- RoHS COMPLIANT.

### Description

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2$  (0.008") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

| Part No.            | Dice                      | Lens Type   | Iv (mcd)<br>@ 20mA |      | Viewing<br>Angle |
|---------------------|---------------------------|-------------|--------------------|------|------------------|
|                     |                           |             | Min.               | Typ. | 2 $\theta$ 1/2   |
| APBL3025SRSGCPR-F01 | SUPER BRIGHT RED (GaAlAs) | WATER CLEAR | 36                 | 100  | 100°             |
|                     | SUPER BRIGHT GREEN (GaP)  |             | 7                  | 20   |                  |

Note:

1.  $\theta$ 1/2 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

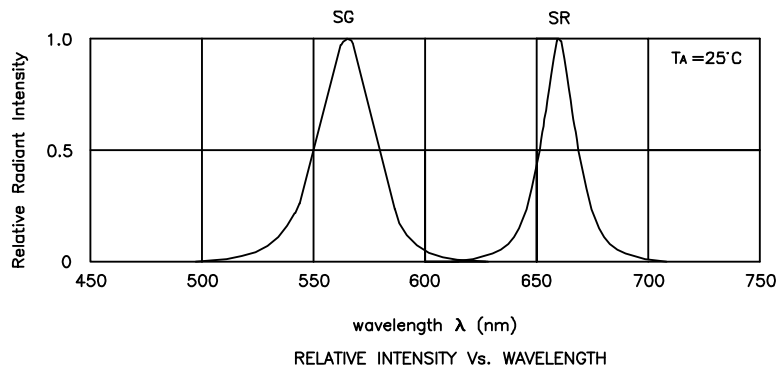
| Symbol                | Parameter                | Device                                 | Typ.        | Max.       | Units | Test Conditions           |
|-----------------------|--------------------------|--|-------------|------------|-------|---------------------------|
| $\lambda_{peak}$      | Peak Wavelength          | Super Bright Red<br>Super Bright Green | 660<br>565  |            | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$           | Dominant Wavelength      | Super Bright Red<br>Super Bright Green | 640<br>568  |            | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Super Bright Red<br>Super Bright Green | 20<br>30    |            | nm    | I <sub>F</sub> =20mA      |
| C                     | Capacitance              | Super Bright Red<br>Super Bright Green | 45<br>15    |            | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>        | Forward Voltage          | Super Bright Red<br>Super Bright Green | 1.85<br>2.2 | 2.5<br>2.5 | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>        | Reverse Current          | All                                    |             | 10         | uA    | V <sub>R</sub> = 5V       |

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

| Parameter                     | Super Bright Red | Super Bright Green | Units |
|-------------------------------|------------------|--------------------|-------|
| Power dissipation             | 100              | 105                | mW    |
| DC Forward Current            | 30               | 25                 | mA    |
| Peak Forward Current [1]      | 155              | 140                | mA    |
| Reverse Voltage               | 5                |                    | V     |
| Operating/Storage Temperature | -40°C To +85°C   |                    |       |

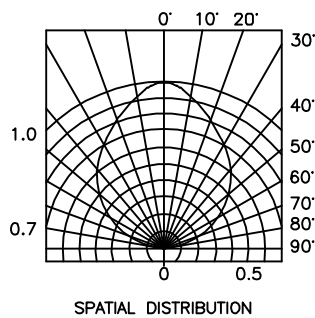
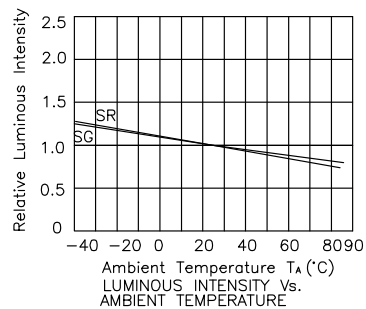
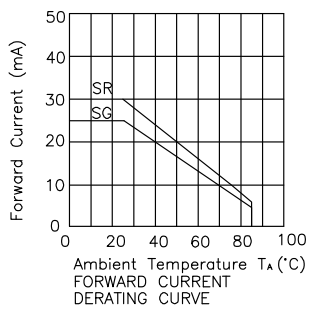
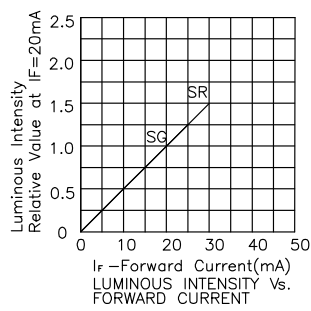
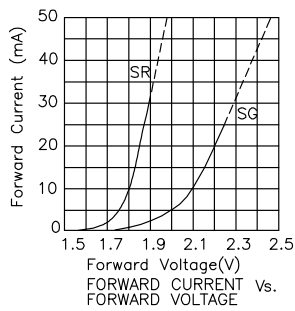
Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.



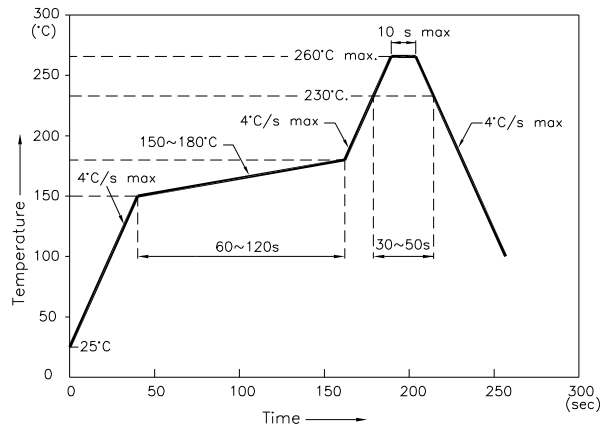
## Super Bright Red /Super Bright Green

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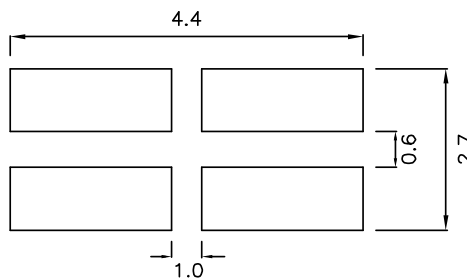
Reflow Soldering Profile For Lead-free SMT Process.



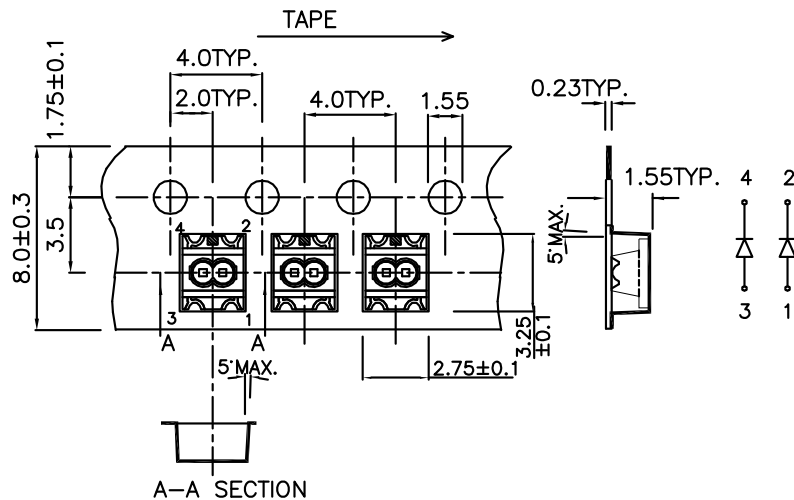
**NOTES:**

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)



**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.