

Part Number: KPBL-3025SRSGC-PRV

Super Bright Red
Super Bright Green

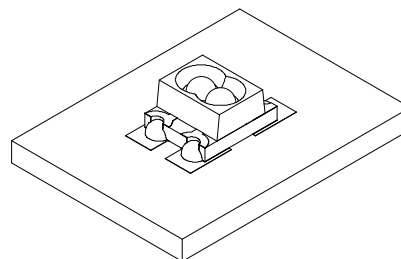
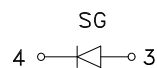
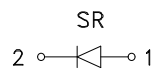
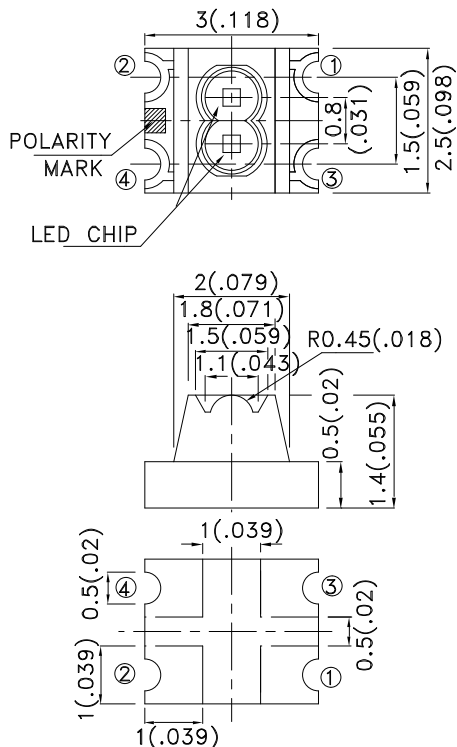
Features

- 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.
- Moisture sensitivity level : level 3.
- 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. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|--------------------|---------------------------|-------------|------------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| KPBL-3025SRSGC-PRV | Super Bright Red (GaAlAs) | WATER CLEAR | 36 | 100 | 100° |
| | Super Bright Green (GaP) | | 7 | 20 | |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

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

Notes:

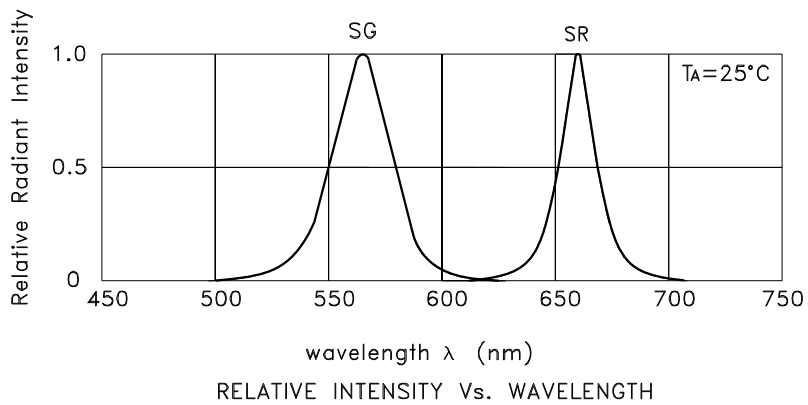
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

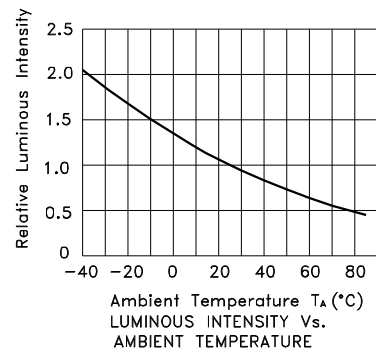
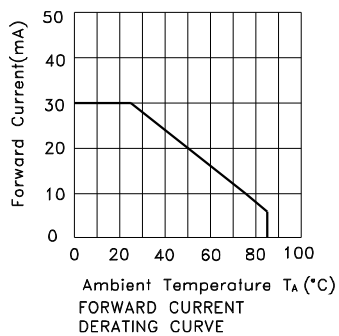
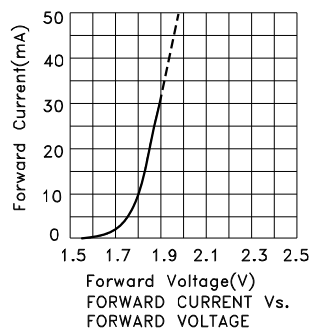
| Parameter | Super Bright Red | Super Bright Green | Units |
|--------------------------|------------------|--------------------|-------|
| Power dissipation | 75 | 62.5 | mW |
| DC Forward Current | 30 | 25 | mA |
| Peak Forward Current [1] | 155 | 140 | mA |
| Reverse Voltage | 5 | | V |
| Operating Temperature | -40°C To +85°C | | |
| Storage Temperature | -40°C To +85°C | | |

Note:

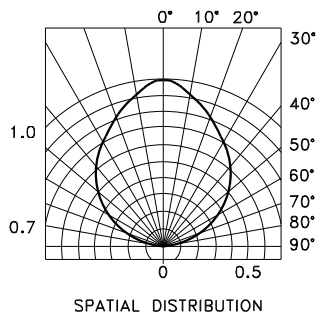
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



KPBL-3025SRSGC-PRV Super Bright Red



Super Bright Green



KPBL-3025SRSGC-PRV

Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

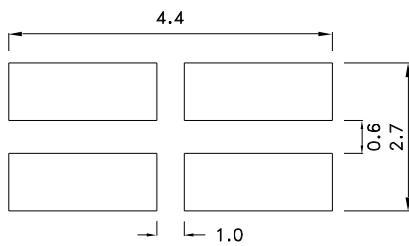
Reflow Soldering Profile For Lead-free SMT Process.



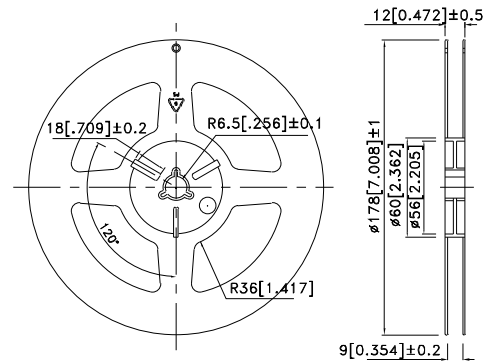
NOTES:

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.

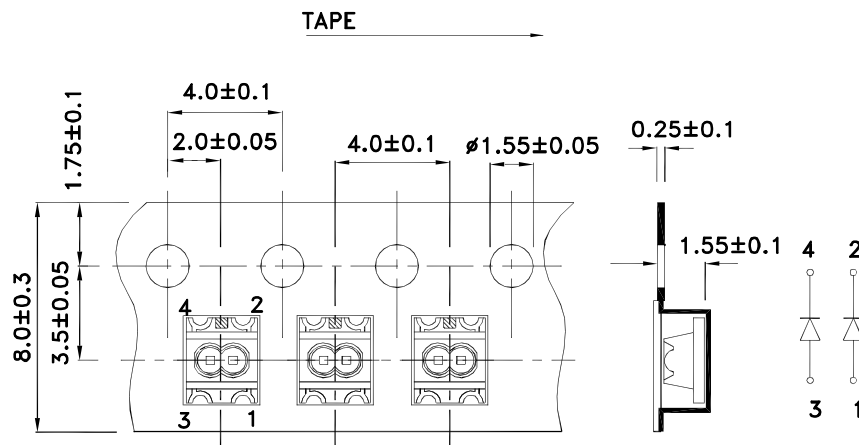
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



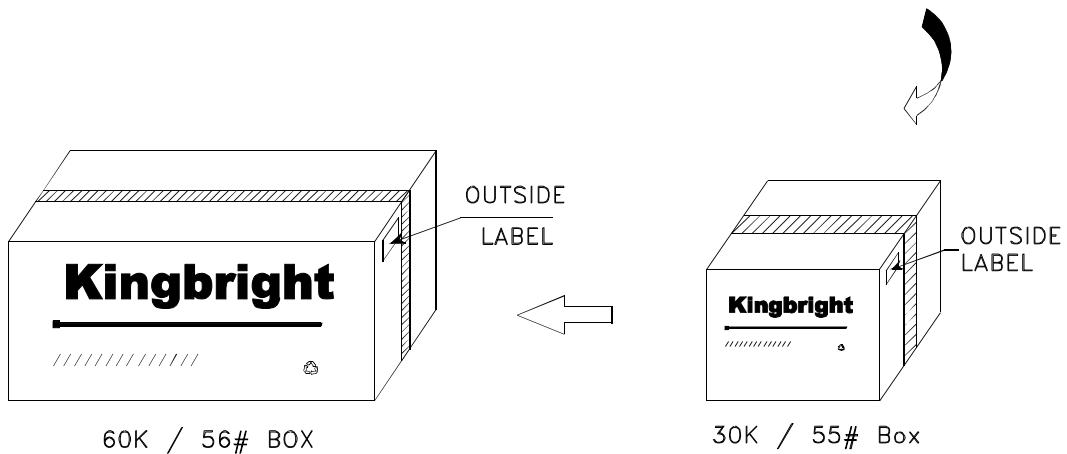
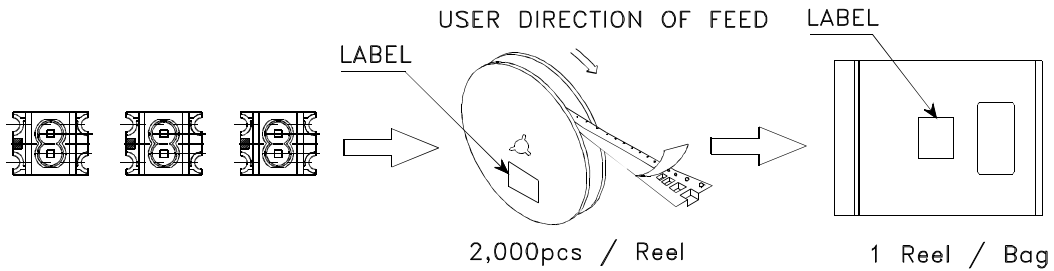
Tape Dimensions (Units : mm)




Kingbright

PACKING & LABEL SPECIFICATIONS

KPBL-3025SRSGC-PRV



| | |
|---|--|
| Kingbright | |
| P/NO: KPBL-3025xxx | |
| QTY: 2,000 pcs | Q.C. Q C XX XX XXXX PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  <small>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</small> | |
| RoHS Compliant | |