

Part Number: KPBL-3025NSGC

Pure Orange
Super Bright Green

Features

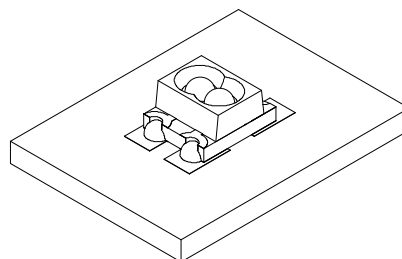
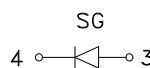
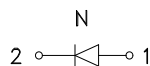
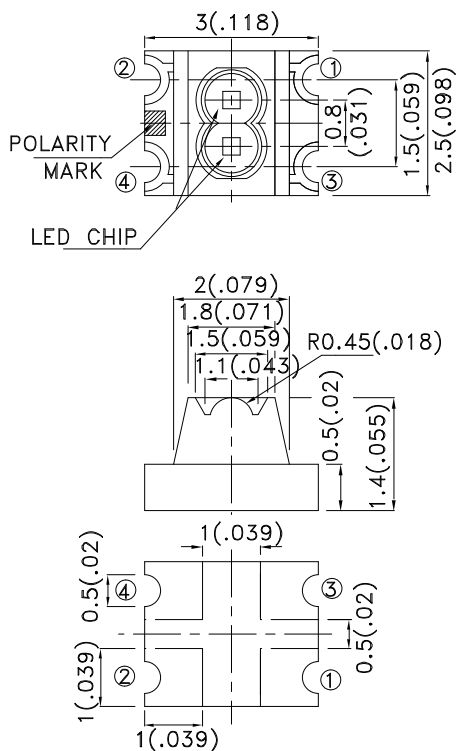
- 3.0mmx2.5mm SMT LED, 1.4mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for back light and indicator.
- Various colors and lens types available.
- Inner lens type.
- Moisture sensitivity level : level 3.
- Package : 2000pcs / reel.
- RoHS compliant.

Description

The Pure Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Pure Orange 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-3025NSGC | Pure Orange (GaAsP/GaP) | Water Clear | 12 | 20 | 100° |
| | Super Bright Green (GaP) | | 12 | 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 |
|--------|--------------------------|-----------------------------------|-------------|------------|-------|-----------------|
| λpeak | Peak Wavelength | Pure Orange Super Bright Green | 607 565 | | nm | IF=20mA |
| λD [1] | Dominant Wavelength | Pure Orange Super Bright Green | 606 568 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Half-width | Pure Orange Super Bright Green | 35 30 | | nm | IF=20mA |
| C | Capacitance | Pure Orange Super Bright Green | 15 15 | | pF | VF=0V;f=1MHz |
| VF [2] | Forward Voltage | Pure Orange Super Bright Green | 2.05 2.2 | 2.5 2.5 | V | IF=20mA |
| IR | Reverse Current | Pure Orange Super Bright Green | | 10 10 | uA | VR = 5V |

Notes:

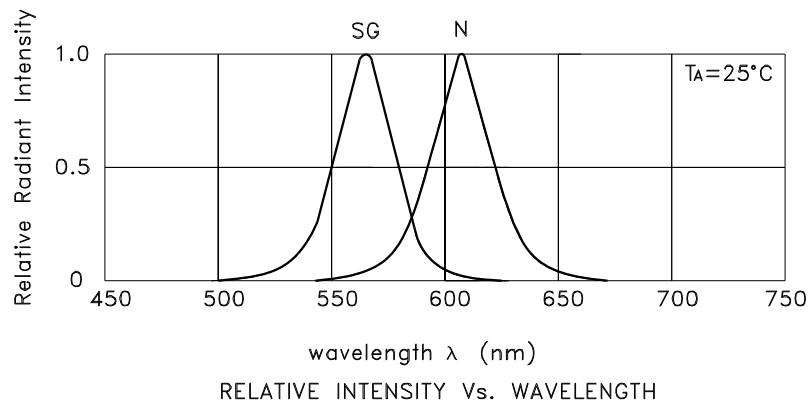
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

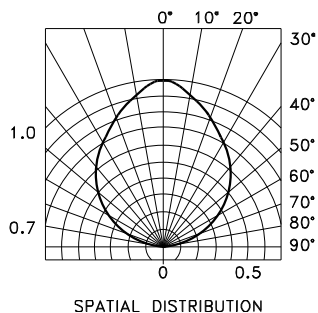
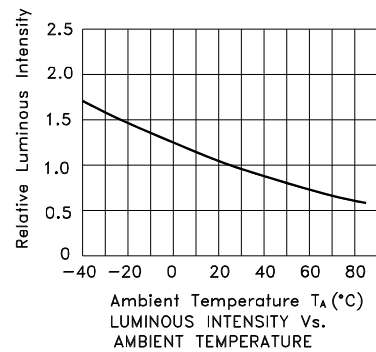
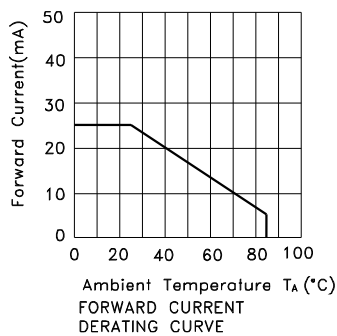
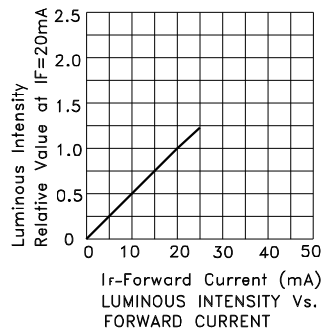
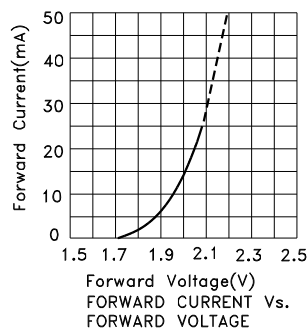
| Parameter | Pure Orange | Super Bright Green | Units |
|--------------------------|----------------|--------------------|-------|
| Power dissipation | 62.5 | 62.5 | mW |
| DC Forward Current | 25 | 25 | mA |
| Peak Forward Current [1] | 145 | 140 | mA |
| Reverse Voltage | 5 | | V |
| Operating Temperature | -40°C To +85°C | | |
| Storage Temperature | -40°C To +85°C | | |

Note:

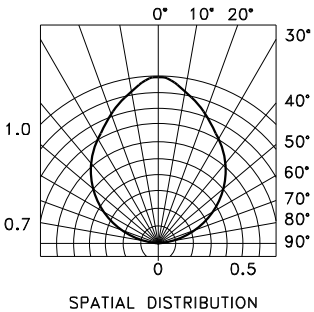
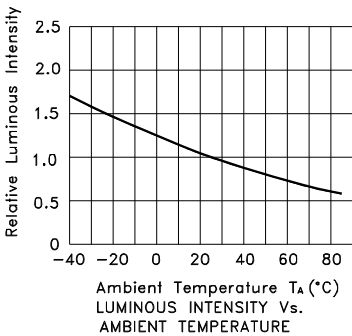
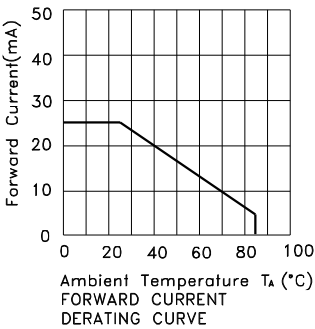
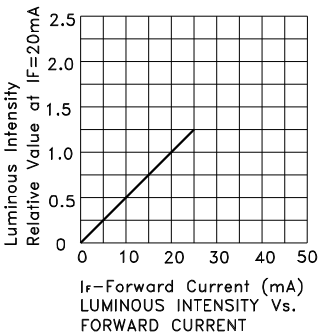
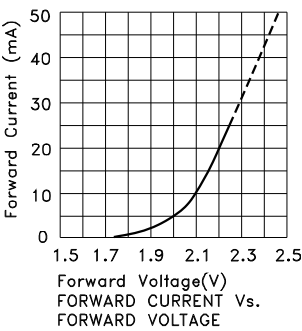
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



KPBL-3025NSGC
Pure Orange



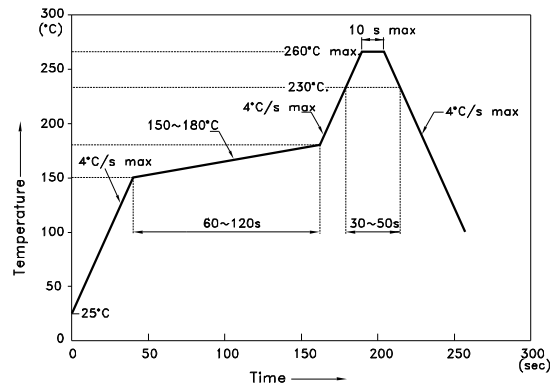
Super Bright Green



KPBL-3025NSGC

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.

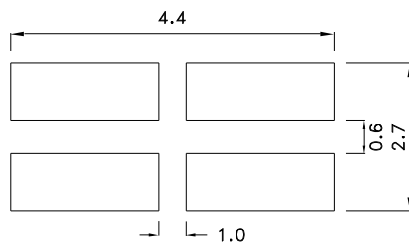
Reflow Soldering Profile For Lead-free SMT Process.



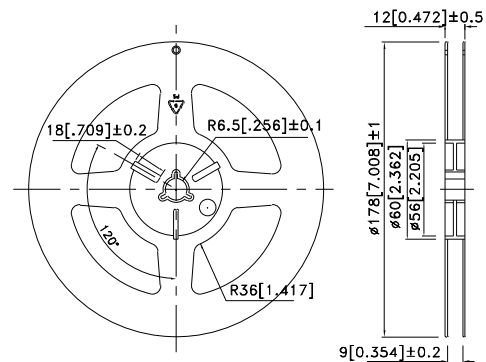
NOTES:

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.

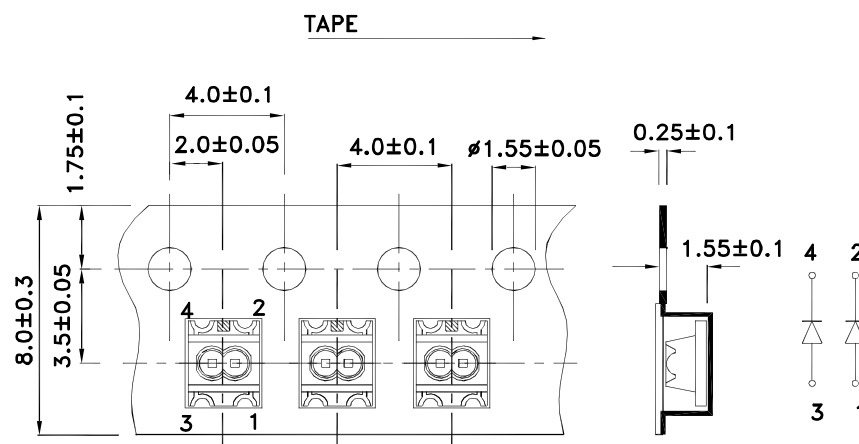
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

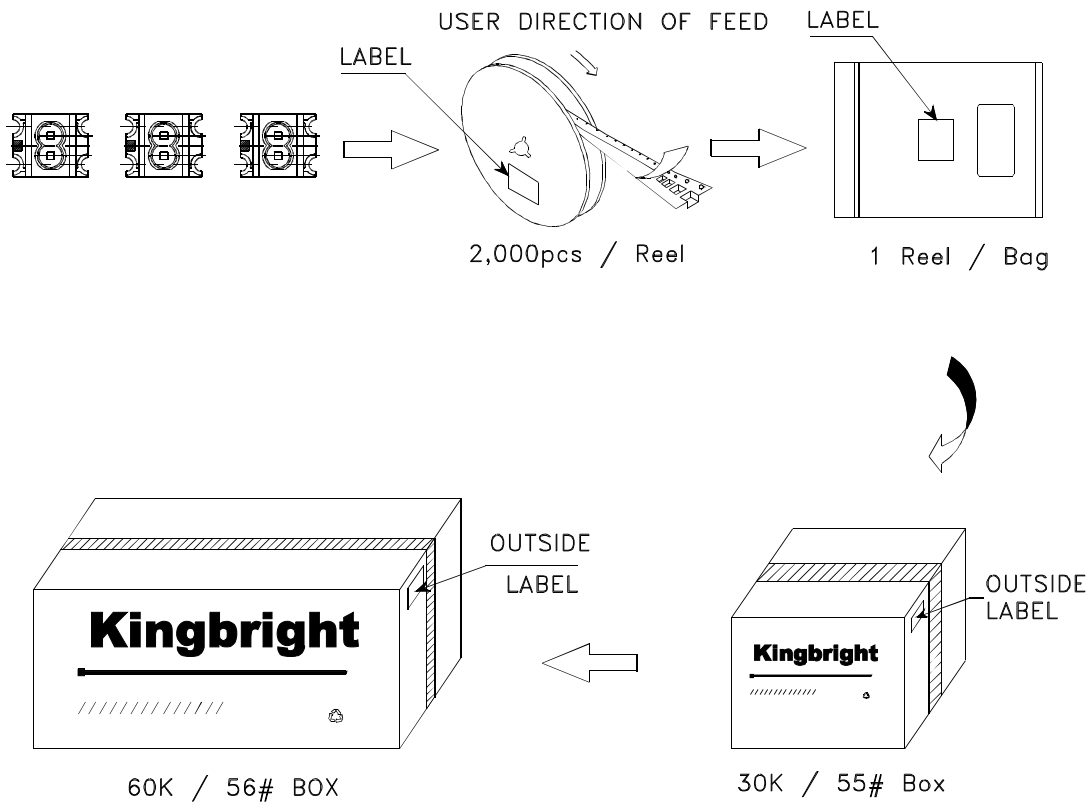



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

KPBL-3025NSGC



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