

Part Number: KPBD-3224SYKCGKC

Super Bright Yellow
Green

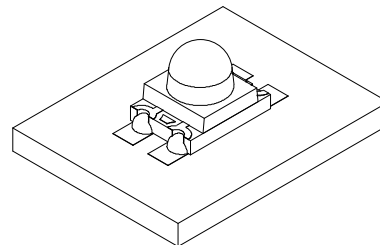
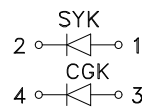
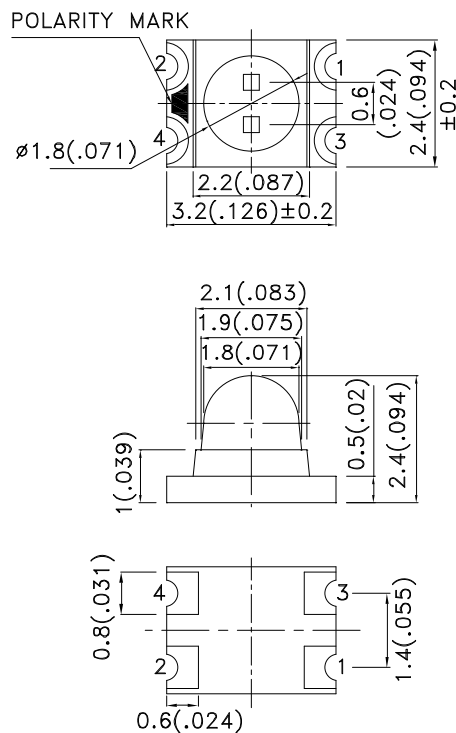
Features

- 3.2x2.4mm SMT LED, 2.4mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package : 1500pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.
The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1(0.004") 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 |
| KPBD-3224SYKCGKC | Super Bright Yellow (AlGaInP) | WATER CLEAR | 110 | 500 | 20° |
| | Green (AlGaInP) | | 110 | 300 | |

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 | Super Bright Yellow Green | 590 574 | | nm | IF=20mA |
| λD [1] | Dominant Wavelength | Super Bright Yellow Green | 590 570 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Half-width | Super Bright Yellow Green | 20 20 | | nm | IF=20mA |
| C | Capacitance | Super Bright Yellow Green | 20 15 | | pF | VF=0V;f=1MHz |
| VF [2] | Forward Voltage | Super Bright Yellow Green | 2 2.1 | 2.5 2.5 | V | IF=20mA |
| IR | Reverse Current | Super Bright Yellow Green | | 10 10 | uA | VR = 5V |

Notes:

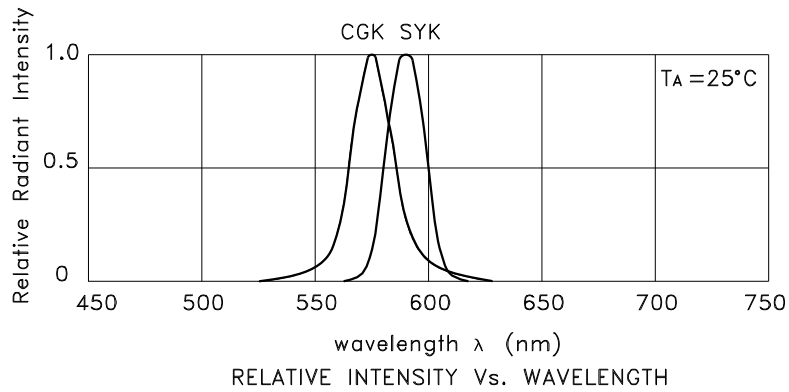
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

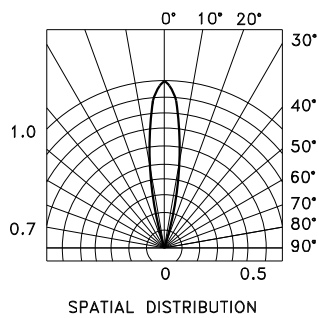
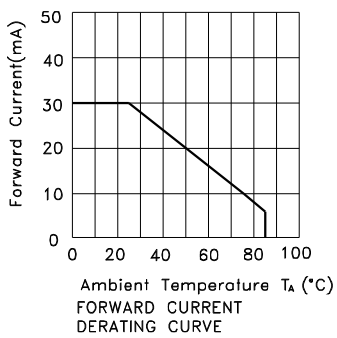
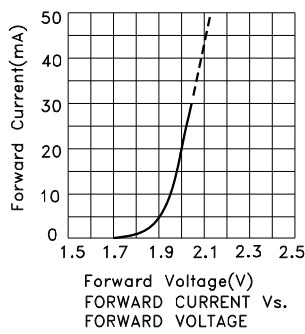
| Parameter | Super Bright Yellow | Green | Units |
|--------------------------|---------------------|-------|-------|
| Power dissipation | 75 | 75 | mW |
| DC Forward Current | 30 | 30 | mA |
| Peak Forward Current [1] | 175 | 150 | mA |
| Reverse Voltage | 5 | | V |
| Operating Temperature | -40°C To +85°C | | |
| Storage Temperature | -40°C To +85°C | | |

Note:

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

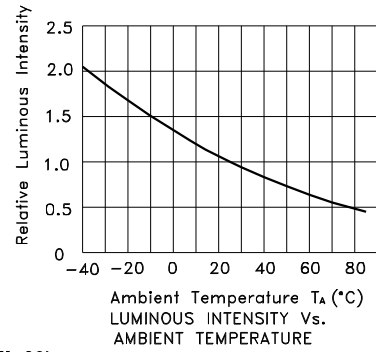


KPBD-3224SYKCGKC Super Bright Yellow



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Green



KPBD-3224SYKCGKC

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.

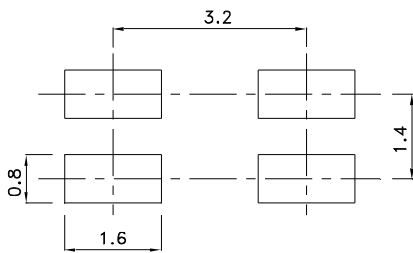
Reflow Soldering Profile For Lead-free SMT Process.



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.

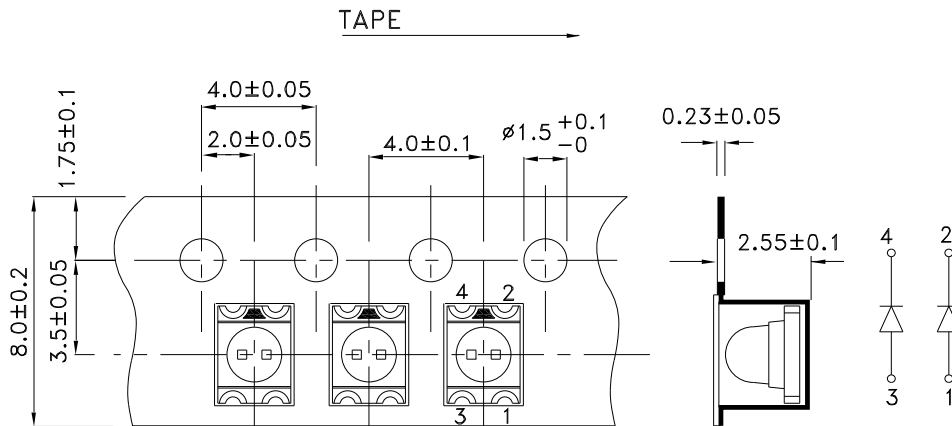
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



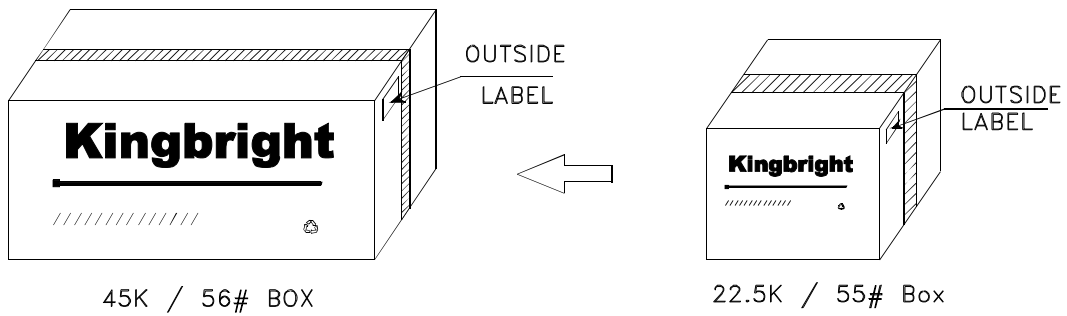
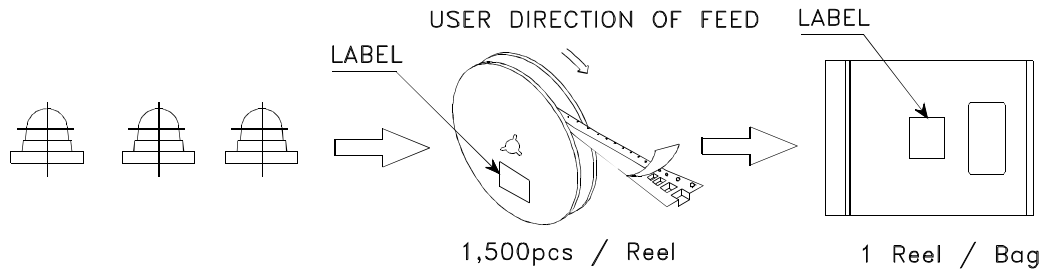
Tape Dimensions (Units : mm)




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PACKING & LABEL SPECIFICATIONS

KPBD-3224SYKCGKC



| | |
|---|--|
| <h1>Kingbright</h1> | |
| P/NO: KPBD-3224xxx | |
| QTY: 1,500 pcs | Q.C. Q C XX XX XXXX PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  <small>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</small> | |
| RoHS Compliant | |