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[APBL3025SURKCGK-F01](#)

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3.0x2.5mm SURFACE MOUNT LED LAMP

Part Number: APBL3025SURKCGK-F01

Hyper Red
Green

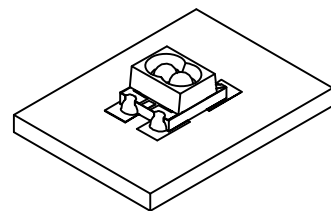
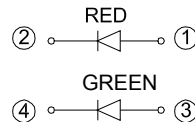
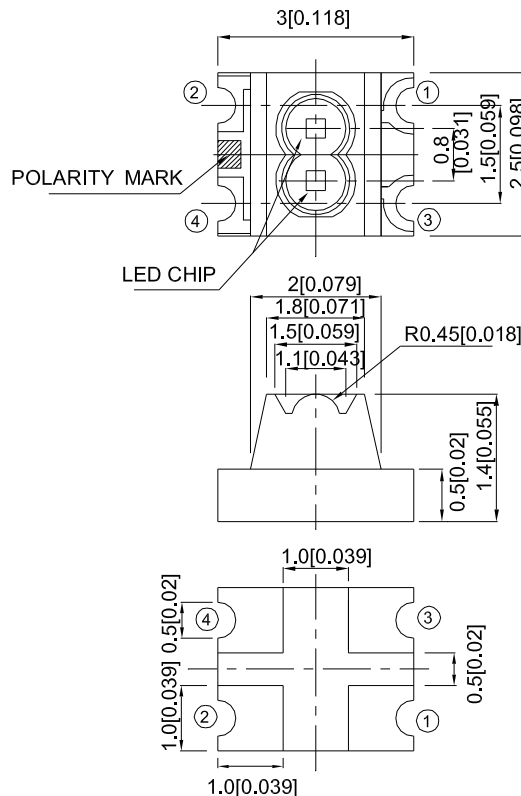
Features

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

Descriptions

- The Hyper Red source color devices are made with Al GaInP on GaAs substrate Light Emitting Diode.
- 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 ± 0.2 (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.



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Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|---------------------|---------------------|-------------|------------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| APBL3025SURKCGK-F01 | Hyper Red (AlGaInP) | Water Clear | 400 | 600 | 100° |
| | | | *80 | *200 | |
| | Green (AlGaInP) | | 55 | 120 | |
| | | | *55 | *120 | |

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%.

* Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|--------------------|--------------------------|--------------------|-------------|------------|-------|---------------------------|
| λ _{peak} | Peak Wavelength | Hyper Red Green | 645 574 | | nm | I _F =20mA |
| λ _D [1] | Dominant Wavelength | Hyper Red Green | 630 570 | | nm | I _F =20mA |
| Δλ _{1/2} | Spectral Line Half-width | Hyper Red Green | 28 20 | | nm | I _F =20mA |
| C | Capacitance | Hyper Red Green | 35 15 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Hyper Red Green | 1.95 2.1 | 2.5 2.5 | V | I _F =20mA |
| I _R | Reverse Current | Hyper Red Green | | 10 10 | uA | V _R = 5V |

Notes:

1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

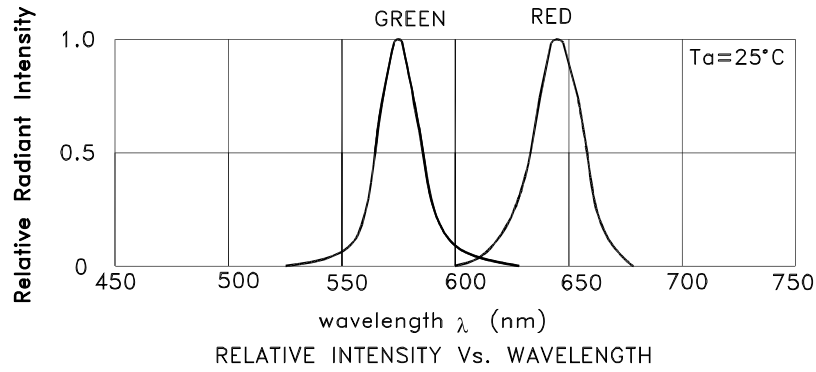
Absolute Maximum Ratings at TA=25°C

| Parameter | Hyper Red | Green | Units |
|--------------------------|----------------|-------|-------|
| Power dissipation | 75 | 75 | mW |
| DC Forward Current | 30 | 30 | mA |
| Peak Forward Current [1] | 185 | 150 | mA |
| Reverse Voltage | 5 | | V |
| Operating Temperature | -40°C To +85°C | | |
| Storage Temperature | -40°C To +85°C | | |

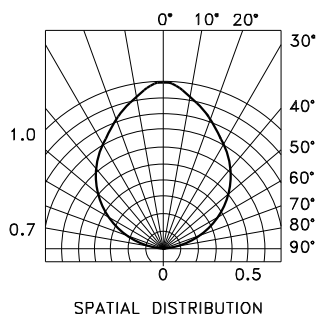
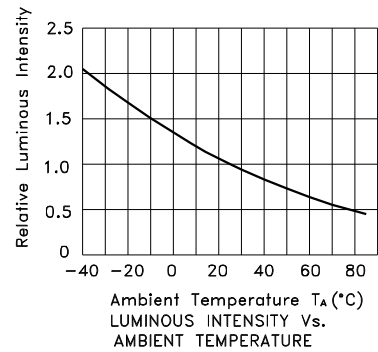
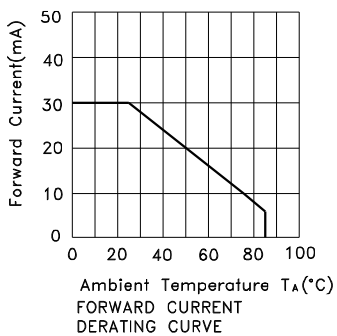
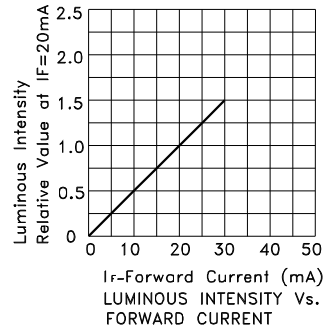
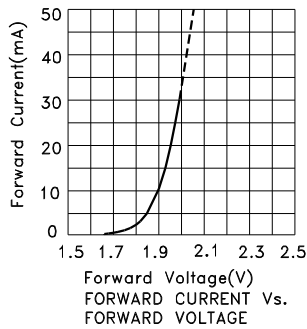
Note:

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

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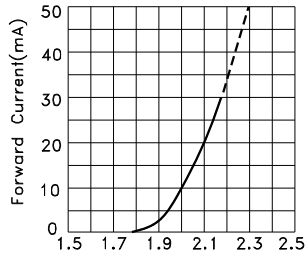


APBL3025SURKCGK-F01 Hyper Red

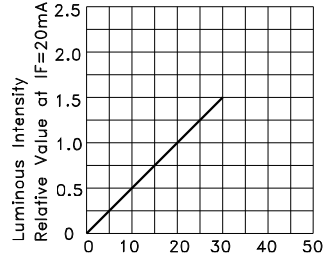


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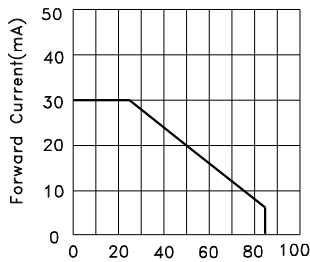
Green



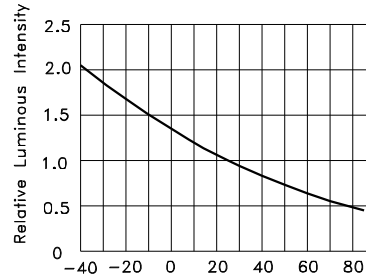
Forward Voltage(V)
 FORWARD CURRENT Vs.
 FORWARD VOLTAGE



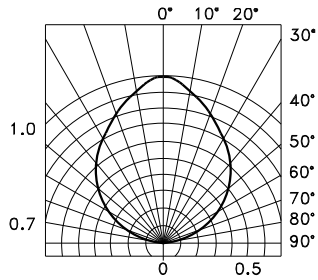
I_f -Forward Current (mA)
 LUMINOUS INTENSITY Vs.
 FORWARD CURRENT



Ambient Temperature T_A (°C)
 FORWARD CURRENT
 DERATING CURVE



Ambient Temperature T_A (°C)
 LUMINOUS INTENSITY Vs.
 AMBIENT TEMPERATURE



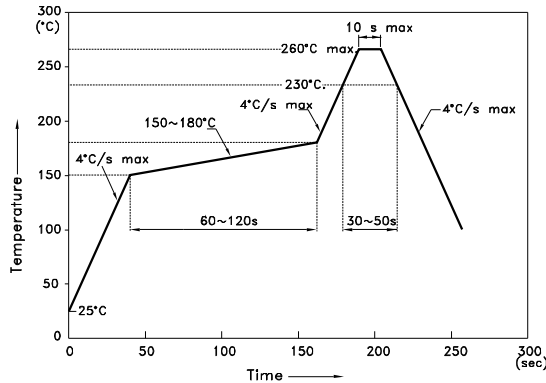
SPATIAL DISTRIBUTION

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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.

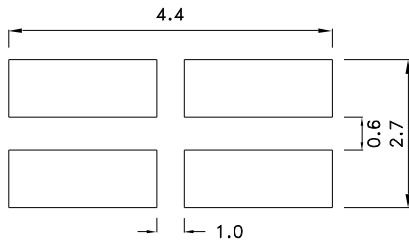
Reflow Soldering Profile For Lead-free SMT Process.



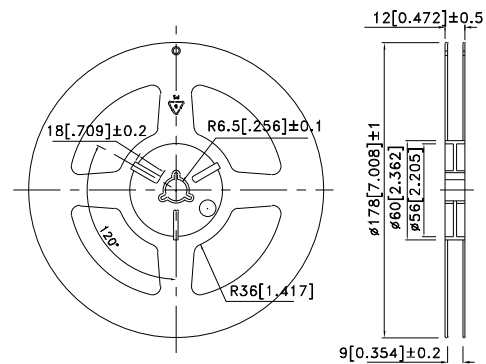
NOTES:

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.

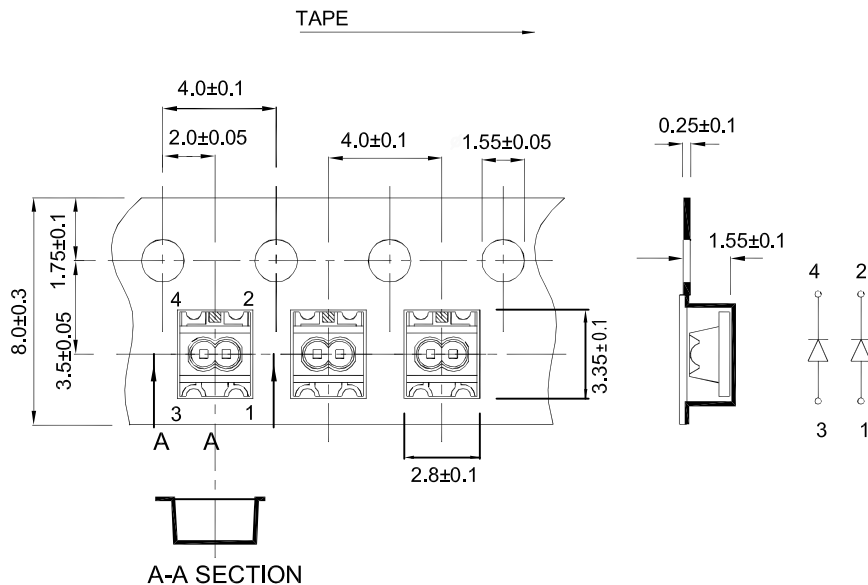
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



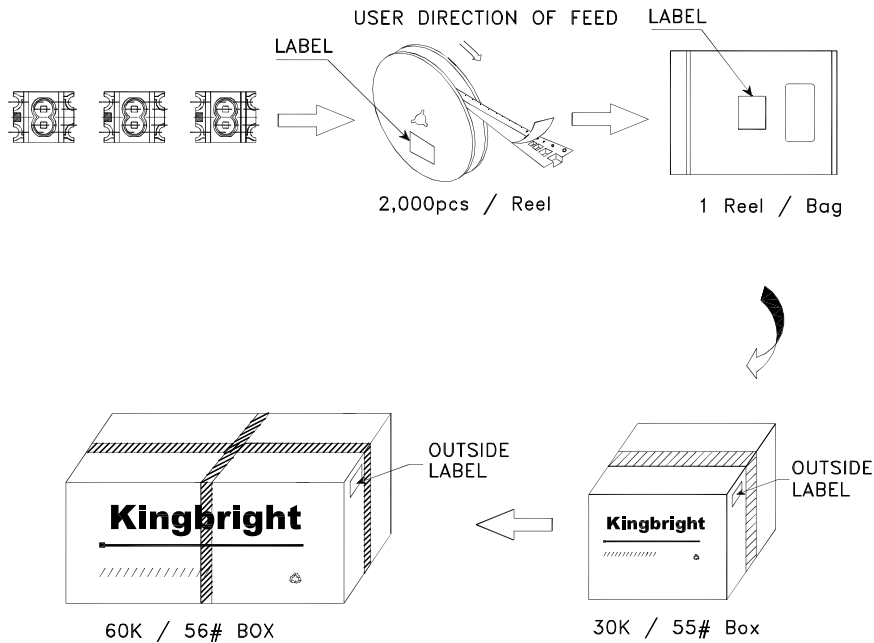
Tape Dimensions (Units : mm)




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PACKING & LABEL SPECIFICATIONS

APBL3025SURKCGK-F01



| | |
|--|--|
| <h1>Kingbright</h1> | |
| P/NO: APBL3025xxx | |
| QTY: 2,000 pcs | Q.C. Q C XX XX XXXX PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  <small>XXXXXXXXXXXXXXXXXXXX</small> | |
| RoHS Compliant | |

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