

Kingbright

SUBMINIATURE SOLID STATE LAMP

PRELIMINARY SPEC

Part Number: AM2520SYCK09

Super Bright Yellow

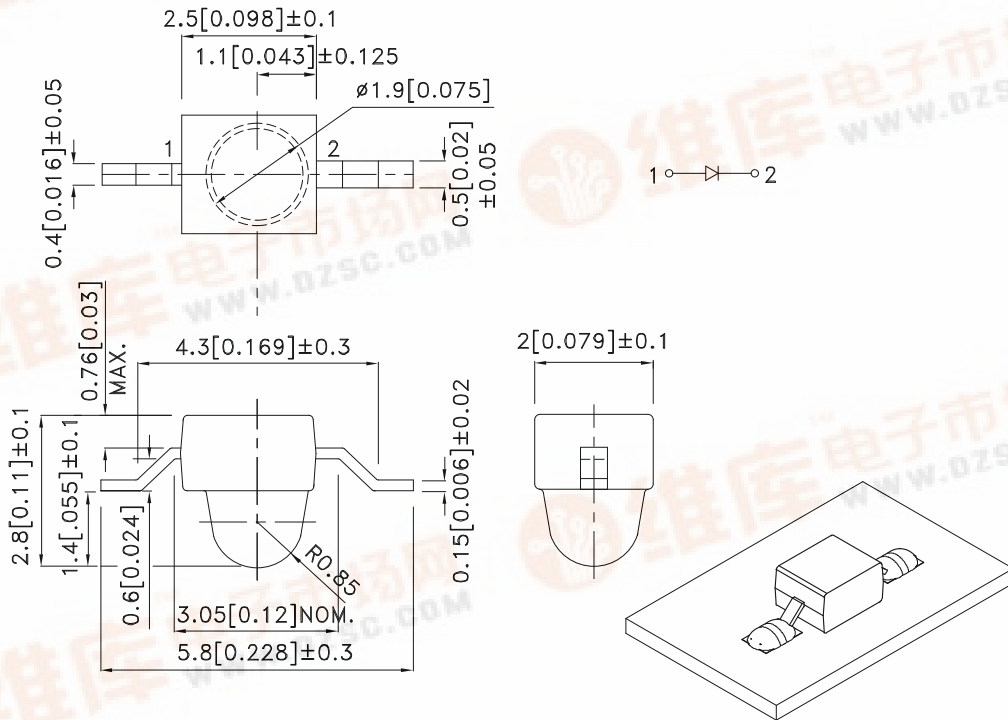
Features

- SUBMINIATURE PACKAGE.
- WIDE VIEWING ANGLE.
- Z-BEND LEAD.
- LONG LIFE - SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- PACKAGE : 1000PCS / REEL.
- RoHS COMPLIANT.

Description

The Super Bright Yellow device is made with DH InGaAlP (on GaAs substrate) light emitting diode chip.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25 (0.01")$ unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.
5. 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 |
| AM2520SYCK09 | Super Bright Yellow (InGaAlP) | WATER CLEAR | 650 | 1300 | 20° |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline 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 Yellow | 590 | | nm | I _F =20mA |
| λ _D [1] | Dominant Wavelength | Super Bright Yellow | 590 | | nm | I _F =20mA |
| Δλ _{1/2} | Spectral Line Half-width | Super Bright Yellow | 20 | | nm | I _F =20mA |
| C | Capacitance | Super Bright Yellow | 20 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Super Bright Yellow | 2 | 2.5 | V | I _F =20mA |
| I _R | Reverse Current | Super Bright Yellow | | 10 | μA | V _R =5V |

Notes:

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

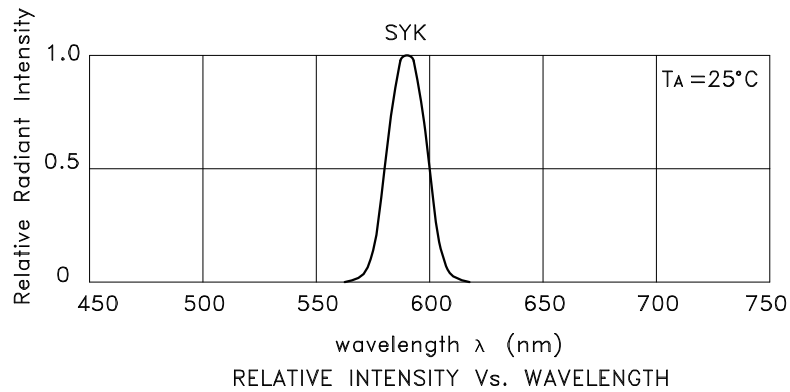
Absolute Maximum Ratings at TA=25°C

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

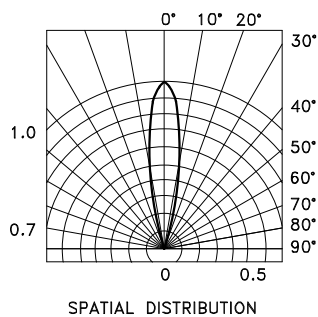
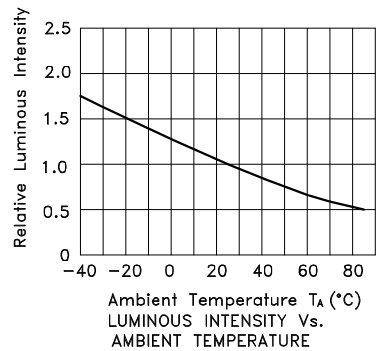
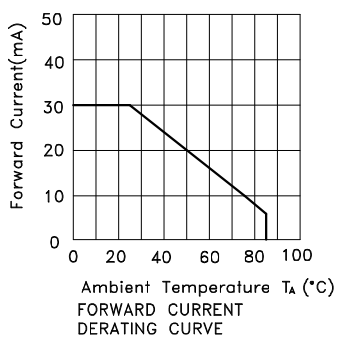
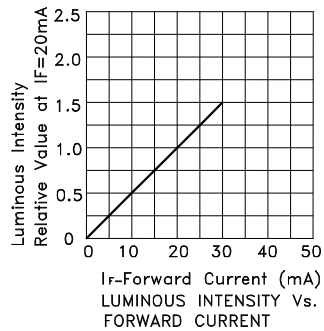
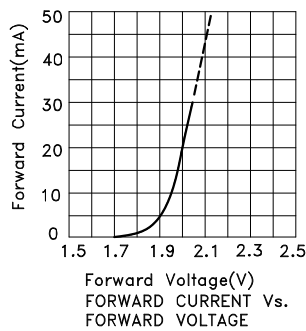
Note:

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

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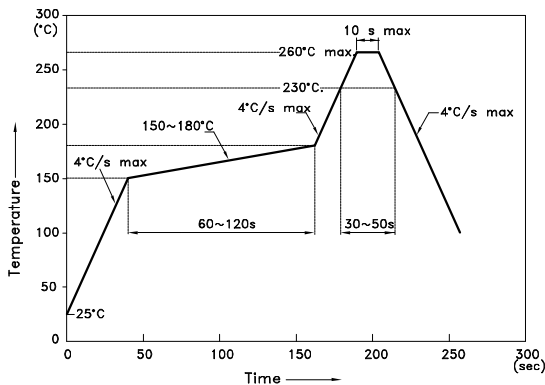


Super Bright Yellow AM2520SYCK09



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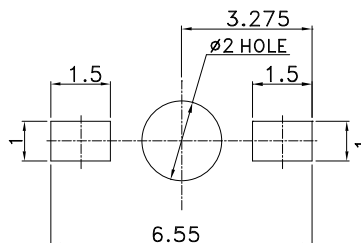
Reflow Soldering Profile For Lead-free SMT Process.



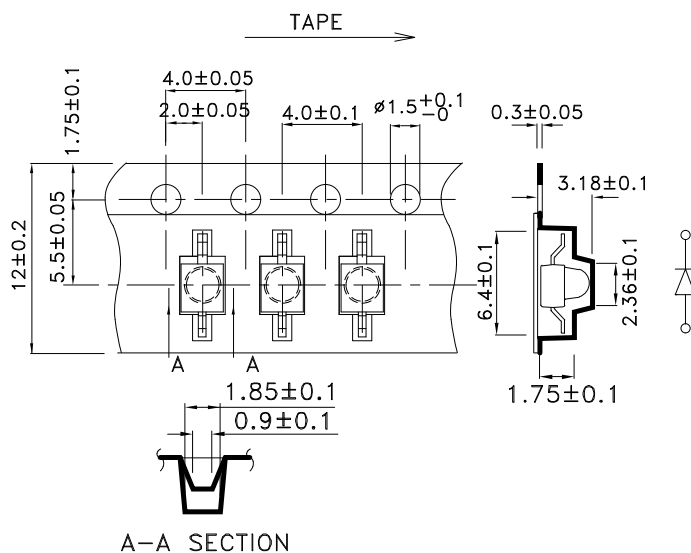
NOTES:

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; Tolerance: ± 0.1)



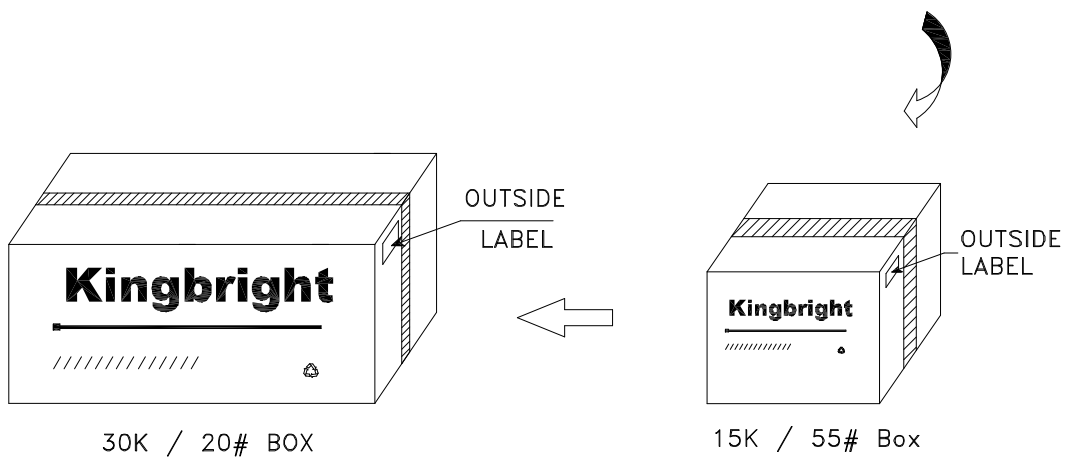
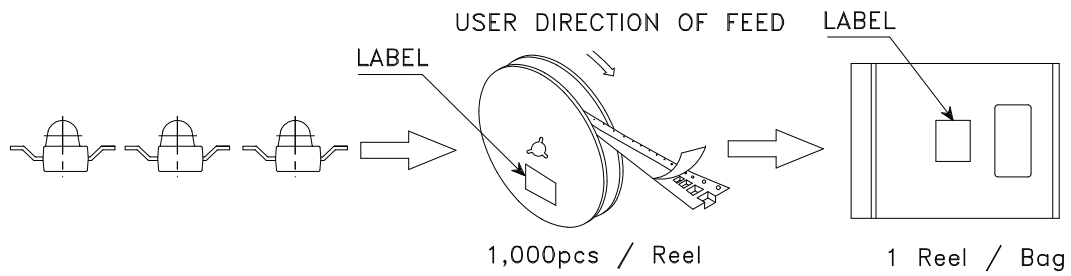
Tape Specifications (Units : mm)




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PACKING & LABEL SPECIFICATIONS

AM2520SYCK09



| | |
|---|--|
| <h1>Kingbright</h1> | |
| P/NO: AM2520xxx09 | |
| QTY: 1,000 pcs | Q.C. Q C xx xx xxxx PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  <small>XXXXXXXXXXXXXXXXXXXX</small> | |
| RoHS Compliant | |