

### SUBMINIATURE SOLID STATE LAMP

PRELIMINARY SPEC

Part Number: AM2520SYC03

Super Bright Yellow

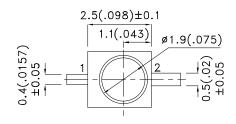
### **Features**

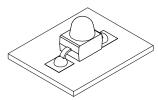
- SUBMINIATURE PACKAGE.
- WIDE VIEWING ANGLE.
- GULL WING LEAD.
- LONG LIFE SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- MOISTURE SENSITIVITY LEVEL: LEVEL 3.
- PACKAGE: 1000PCS/REEL.
- RoHS COMPLIANT.

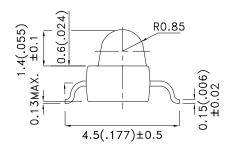
## Description

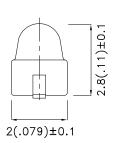
The Super Bright Yellow device is made with InGaAIP (on GaAs substrate) light emitting diode chip.

## **Package Dimensions**









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**⊸** 2

### Notes:

- All dimensions are in millimeters (inches).
   Tolerance is ±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   | lv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|-------------|-------------------------------|-------------|------------------------|------|----------------------|
|             |                               | 2.          | Min.                   | Тур. | 201/2                |
| AM2520SYC03 | Super Bright Yellow (InGaAIP) | WATER CLEAR | 900                    | 1500 | 20°                  |

- 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

|        | <u> </u>                 |                     |      |      |       |                           |
|--------|--------------------------|---------------------|------|------|-------|---------------------------|
| Symbol | Parameter                | Device              | Тур. | Max. | Units | Test Conditions           |
| λpeak  | Peak Wavelength          | Super Bright Yellow | 590  |      | nm    | IF=20mA                   |
| λD [1] | Dominant Wavelength      | Super Bright Yellow | 588  |      | nm    | IF=20mA                   |
| Δλ1/2  | Spectral Line Half-width | Super Bright Yellow | 28   |      | nm    | IF=20mA                   |
| С      | Capacitance              | Super Bright Yellow | 25   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| VF [2] | Forward Voltage          | Super Bright Yellow | 2    | 2.5  | V     | I=20mA                    |
| lr     | Reverse Current          | Super Bright Yellow |      | 10   | uA    | V <sub>R</sub> =5V        |

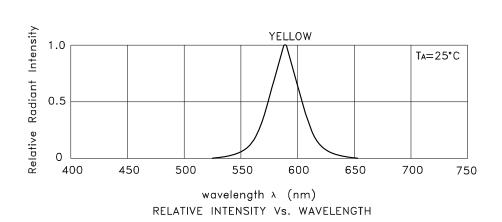
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

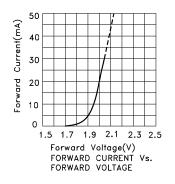
| Parameter                | Super Bright Yellow | Units |  |
|--------------------------|---------------------|-------|--|
| Power dissipation        | 75                  | mW    |  |
| DC Forward Current       | 30                  | mA    |  |
| Peak Forward Current [1] | 150                 | mA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

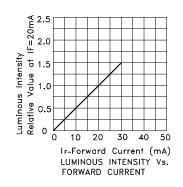
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

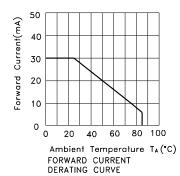
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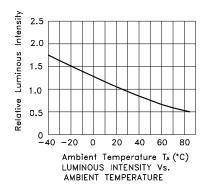


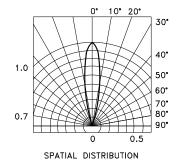
Super Bright Yellow AM2520SYC03









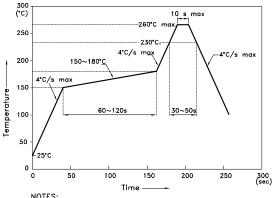


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## AM2520SYC03

Reflow Soldering Profile For Lead-free SMT Process.



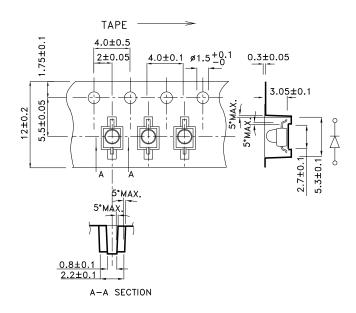
- NOTES:

  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.

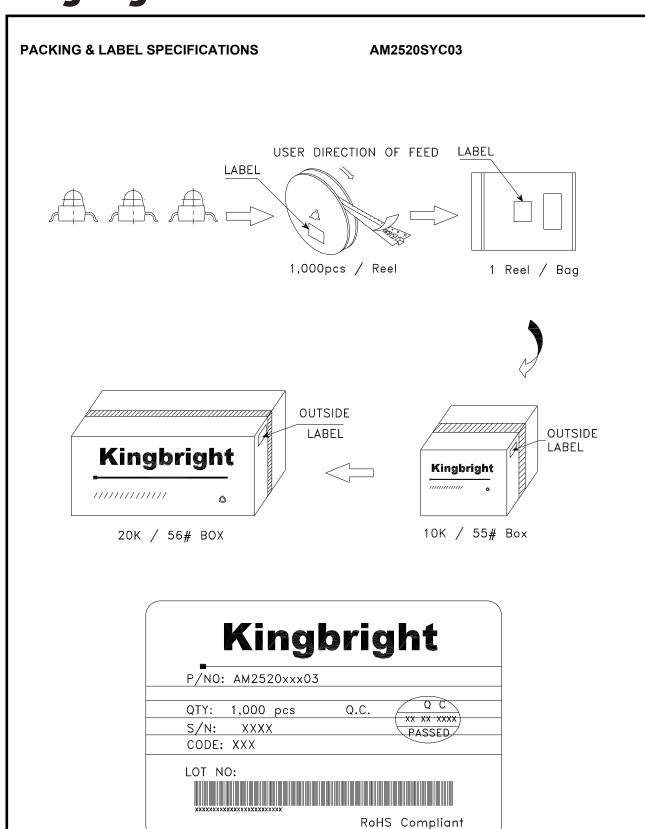
**Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



**Tape Specifications** (Units: mm)



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