

#### SUBMINIATURE SOLID STATE LAMP

Part Number: AM2520SYCK09

Super Bright Yellow

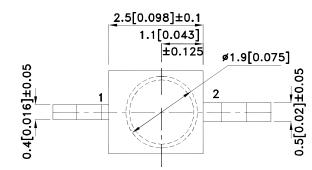
#### **Features**

- Subminiature package.
- Z-bend lead.
- Long life solid state reliability.
- Low package profile.
- Moisture sensitivity level : level 3.
- Package: 1000pcs / reel.
- RoHS compliant.

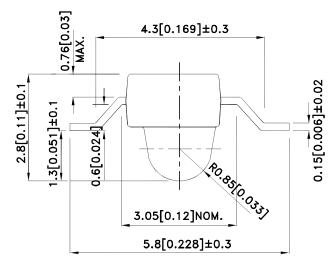
#### Description

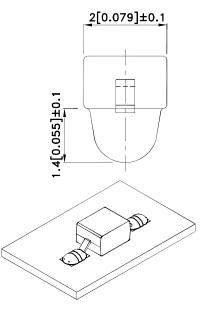
The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.

#### **Package Dimensions**









- 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. The specifications, characteristics and technical data described in the datasheet are subject to change without prior 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] |
|--------------|-------------------------------|-------------|------------------------|------|----------------------|
|              |                               | 21          | Min.                   | Тур. | 201/2                |
| AM2520SYCK09 | Super Bright Yellow (AlGaInP) | Water Clear | 1300                   | 2300 | 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%.
- 3. Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

#### Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter                | Device              | Тур. | Max. | Units | Test Conditions    |
|--------|--------------------------|---------------------|------|------|-------|--------------------|
| λpeak  | Peak Wavelength          | Super Bright Yellow | 590  |      | nm    | I=20mA             |
| λD [1] | Dominant Wavelength      | Super Bright Yellow | 590  |      | nm    | IF=20mA            |
| Δλ1/2  | Spectral Line Half-width | Super Bright Yellow | 20   |      | nm    | IF=20mA            |
| С      | Capacitance              | Super Bright Yellow | 20   |      | pF    | VF=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 |

#### Notes:

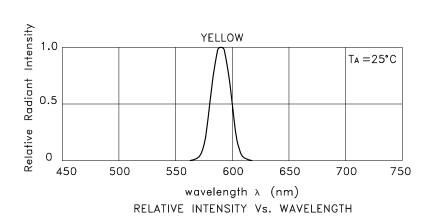
- Wavelength: +/-1nm.
   Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

#### Absolute Maximum Ratings at TA=25°C

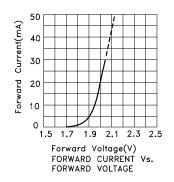
| Parameter Super Bright Yellow |                | Units |  |
|-------------------------------|----------------|-------|--|
| Power dissipation             | 75             | mW    |  |
| DC Forward Current            | 30             | mA    |  |
| Peak Forward Current [1]      | 175            | mA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

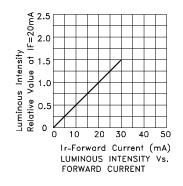
Note: 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

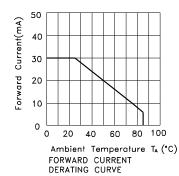
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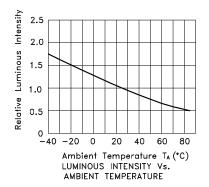


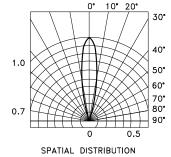
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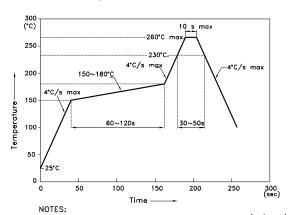
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#### **AM2520SYCK09**

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.



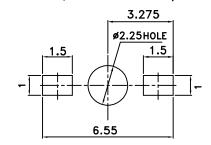
- NOTES:

  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.
  - to high temperature.

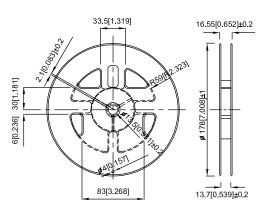
    3.Number of reflow process shall be 2 times or less.

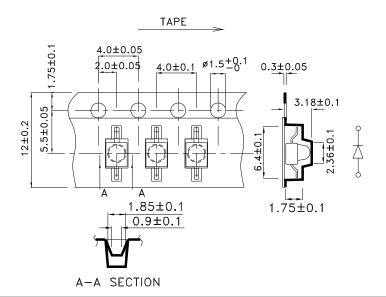
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



Tape Dimensions (Units : mm)

#### **Reel Dimension**



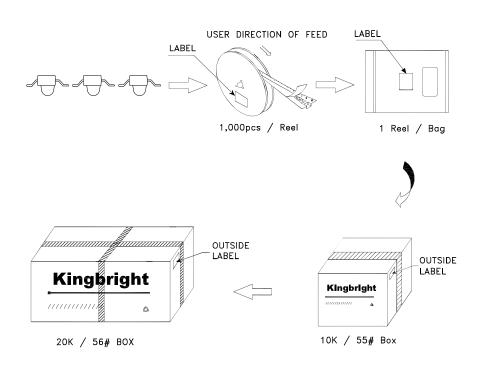


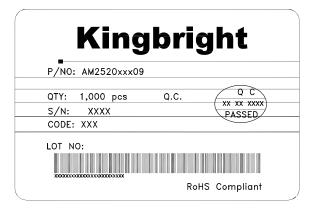
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#### **PACKING & LABEL SPECIFICATIONS**

#### AM2520SYCK09





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# AMEYA360 Components Supply Platform

### **Authorized Distribution Brand:**

























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