

#### 1.0X0.5mm SMD CHIP LED LAMP

Part Number: KPHHS-1005LVSYCK-J3-PF

Super Bright Yellow

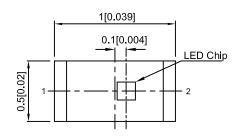
#### **Features**

- 1.0mmX0.5mm SMD LED, 0.5mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- Low current IF=2mA operating.
- RoHS compliant.

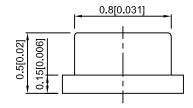
#### Description

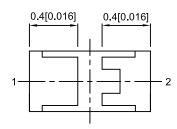
The Super Bright Yellow device is based on light emitting diode chip made from AlGaInP.

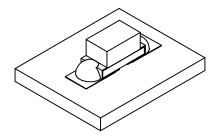
#### **Package Dimensions**











- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.1(0.004")$  unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
   The device has a single mounting surface. The device must be mounted according to the specifications.

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#### **Selection Guide**

| Part No.               | Emitting Color (Material)     | Lens Type   | lv (mcd) [2]<br>@ 2mA |      | Viewing<br>Angle [1] |
|------------------------|-------------------------------|-------------|-----------------------|------|----------------------|
|                        |                               | 2.          | Min.                  | Тур. | 201/2                |
| KPHHS-1005LVSYCK-J3-PF | Super Bright Yellow (AlGalnP) | Water Clear | 10                    | 20   | 120°                 |

#### Notes:

- 1.  $\theta$ 1/2 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 CIE127-2007 standards.

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

| Symbol | Parameter                | Emitting Color      | Тур. | Max. | Units | Test Conditions    |
|--------|--------------------------|---------------------|------|------|-------|--------------------|
| λpeak  | Peak Wavelength          | Super Bright Yellow | 590  |      | nm    | IF=2mA             |
| λD [1] | Dominant Wavelength      | Super Bright Yellow | 590  |      | nm    | IF=2mA             |
| Δλ1/2  | Spectral Line Half-width | Super Bright Yellow | 20   |      | nm    | IF=2mA             |
| С      | Capacitance              | Super Bright Yellow | 45   |      | pF    | VF=0V;f=1MHz       |
| VF [2] | Forward Voltage          | Super Bright Yellow | 1.85 | 2.1  | V     | IF=2mA             |
| lR     | Reverse Current          | Super Bright Yellow |      | 10   | uA    | V <sub>R</sub> =5V |

#### Notes:

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

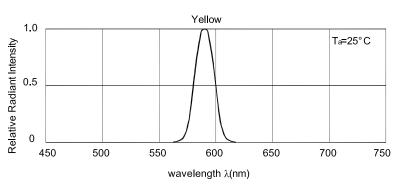
#### Absolute Maximum Ratings at TA=25°C

| Parameter                | Values         | Units          |  |  |  |
|--------------------------|----------------|----------------|--|--|--|
| Power dissipation        | 63             | mW             |  |  |  |
| DC Forward Current       | 30             | mA             |  |  |  |
| Peak Forward Current [1] | 140            | mA             |  |  |  |
| Reverse Voltage          | 5              | V              |  |  |  |
| Operating Temperature    | -40°C To +85°C | -40°C To +85°C |  |  |  |
| Storage Temperature      | -40°C To +85°C | -40°C To +85°C |  |  |  |

- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

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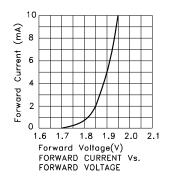
# **Kingbright**

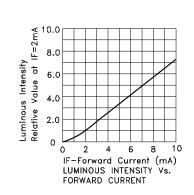


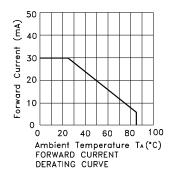
Relative Intensity Vs. Wavelength

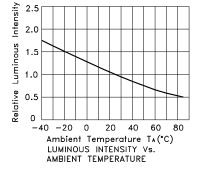
### **Super Bright Yellow**

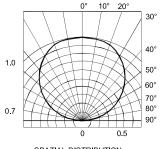
#### KPHHS-1005LVSYCK-J3-PF











SPATIAL DISTRIBUTION

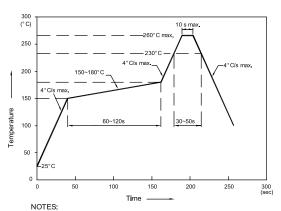
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#### KPHHS-1005LVSYCK-J3-PF

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.

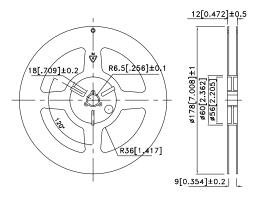


- 1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed
- to high temperature.
  3.Number of reflow process shall be 2 times or less.

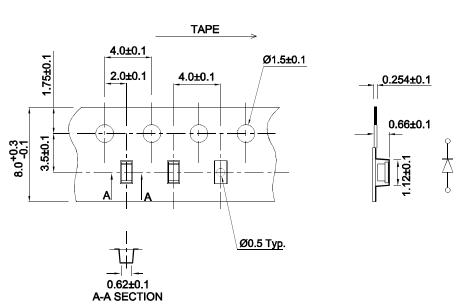
## Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

# 0.4

#### **Reel Dimension**



Tape Dimensions (Units : mm)



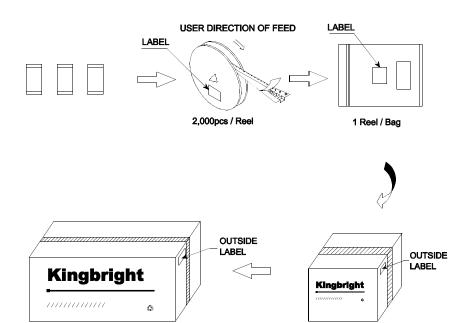
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#### **PACKING & LABEL SPECIFICATIONS**

#### KPHHS-1005LVSYCK-J3-PF

30K / 55# Box





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