

Part Number: KPED-3528SYCK

Super Bright Yellow

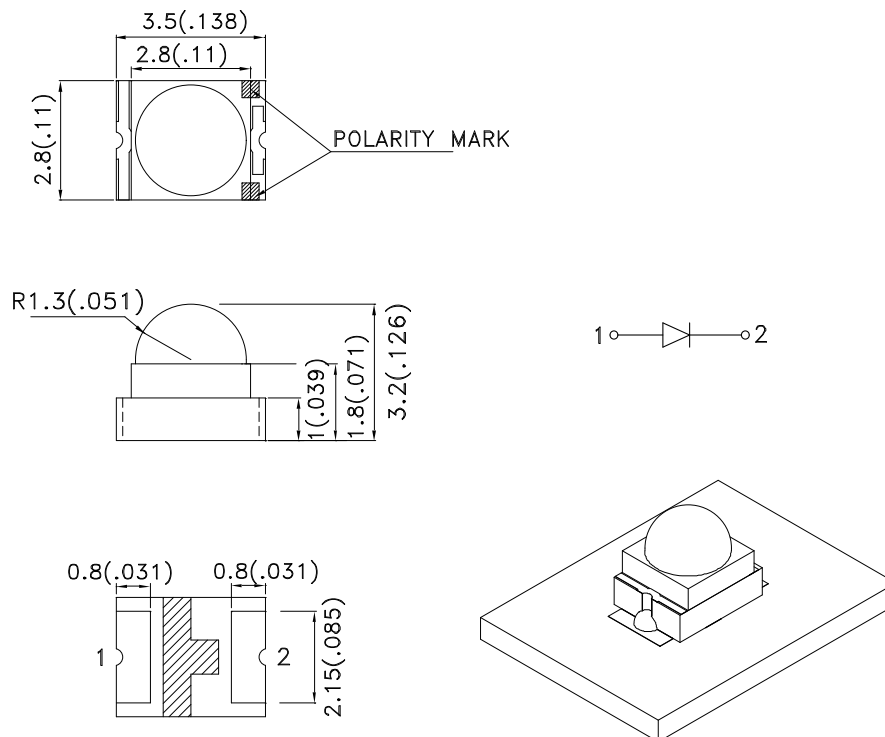
### Features

- Single color.
- Suitable for all SMT assembly and solder process.
- Ideal for backlighting.
- Available on tape and reel.
- Package: 500pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

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

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2(0.008)$  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.



## Selection Guide

| Part No.      | Dice                          | Lens Type   | Iv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|---------------|-------------------------------|-------------|------------------------|------|----------------------|
|               |                               |             | Min.                   | Typ. | 2θ1/2                |
| KPED-3528SYCK | Super Bright Yellow (AlGaInP) | Water Clear | 250                    | 500  | 40°                  |

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%.

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

| Symbol | Parameter                | Device              | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|---------------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Super Bright Yellow | 590  |      | nm    | IF=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         |
| C      | Capacitance              | Super Bright Yellow | 20   |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Super Bright Yellow | 2    | 2.5  | V     | IF=20mA         |
| IR     | Reverse Current          | Super Bright Yellow |      | 10   | uA    | VR=5V           |

Notes:

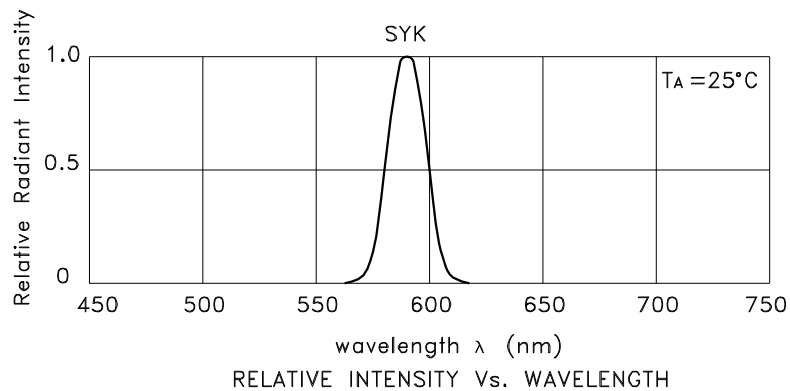
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## 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      |       |

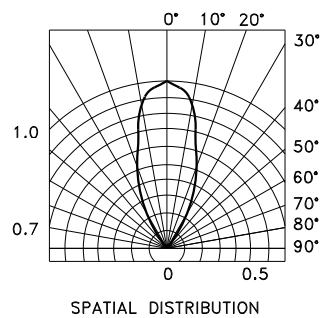
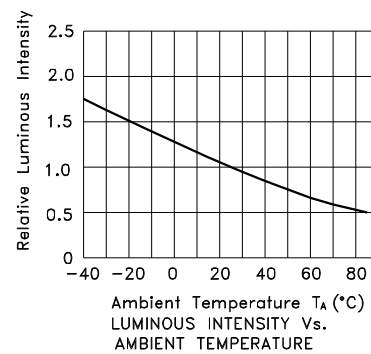
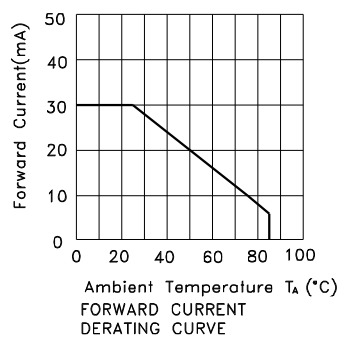
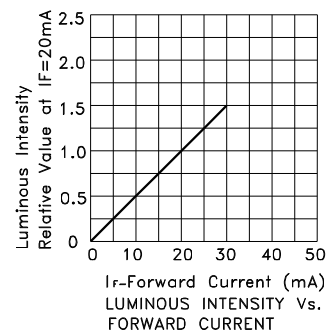
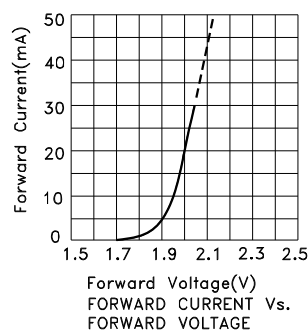
Note:

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



Super Bright Yellow

KPED-3528SYCK



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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.

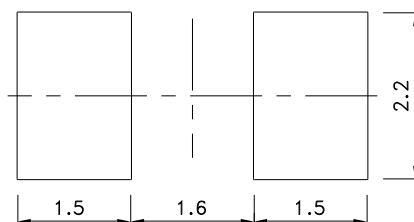
Reflow Soldering Profile For Lead-free SMT Process.



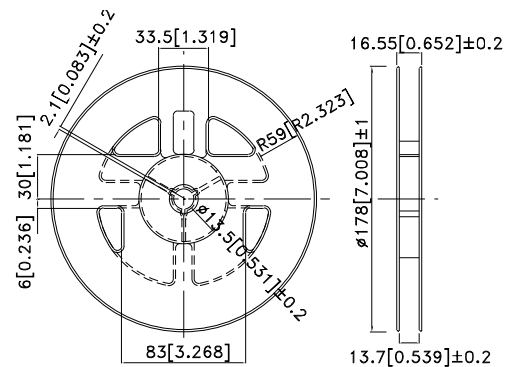
### NOTES:

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.

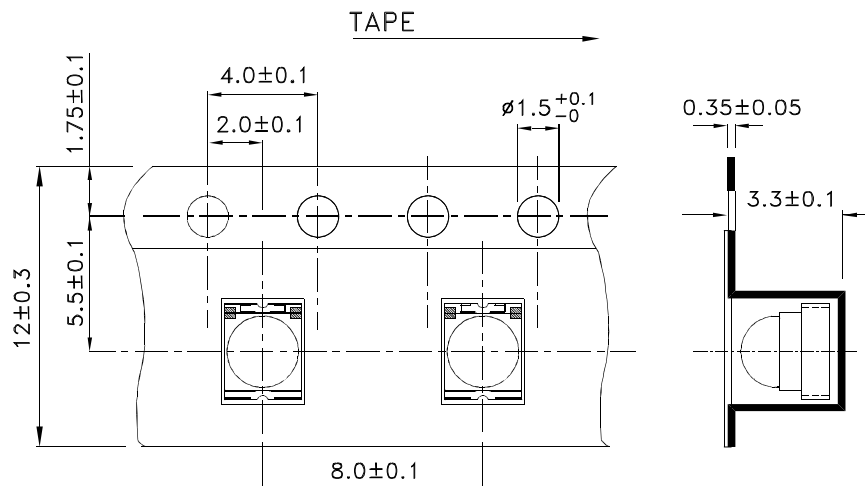
### Recommended Soldering Pattern (Units : mm; Tolerance: $\pm 0.1$ )



### Reel Dimension

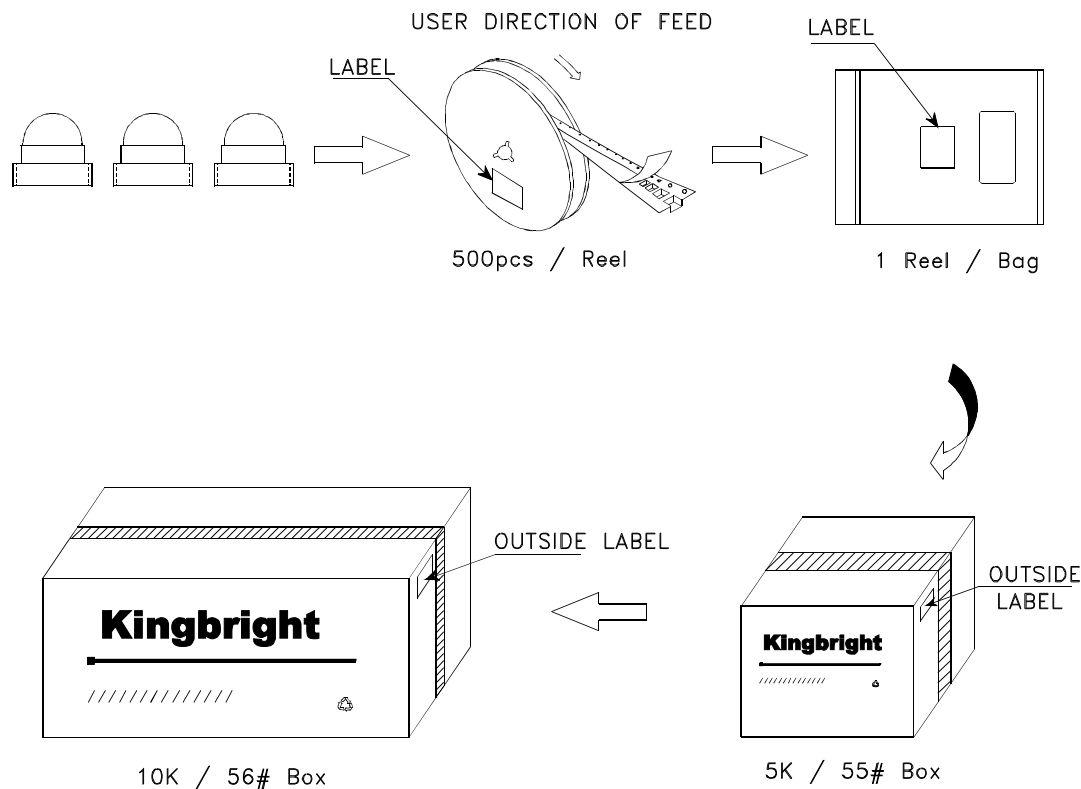



### Tape Dimensions (Units : mm)



## PACKING & LABEL SPECIFICATIONS

KPED-3528SYCK



|  |  |   |   |    |       |        |  |
|--|--|---|---|----|-------|--------|--|
| <b>Kingbright</b>  |  |   |   |    |       |        |  |
| P/NO: KPED-3528xxx   |  |   |   |    |       |        |  |
| QTY: 500 pcs   | Q.C. <table border="1"><tr><td>Q</td><td>C</td></tr><tr><td>XX</td><td>XX XX</td></tr><tr><td colspan="2">PASSED</td></tr></table> | Q | C | XX | XX XX | PASSED |  |
| Q  | C  |   |   |    |       |        |  |
| XX   | XX XX  |   |   |    |       |        |  |
| PASSED   |  |   |   |    |       |        |  |
| S/N: XXXX  |  |   |   |    |       |        |  |
| CODE: XXX  |  |   |   |    |       |        |  |
| LOT NO:  |  |   |   |    |       |        |  |
| <br>XXXXXXXXXXXXXXXXXXXX |  |   |   |    |       |        |  |
| RoHS Compliant   |  |   |   |    |       |        |  |