

Part Number: APTD1608LSYCK/J3-PF

Super Bright Yellow

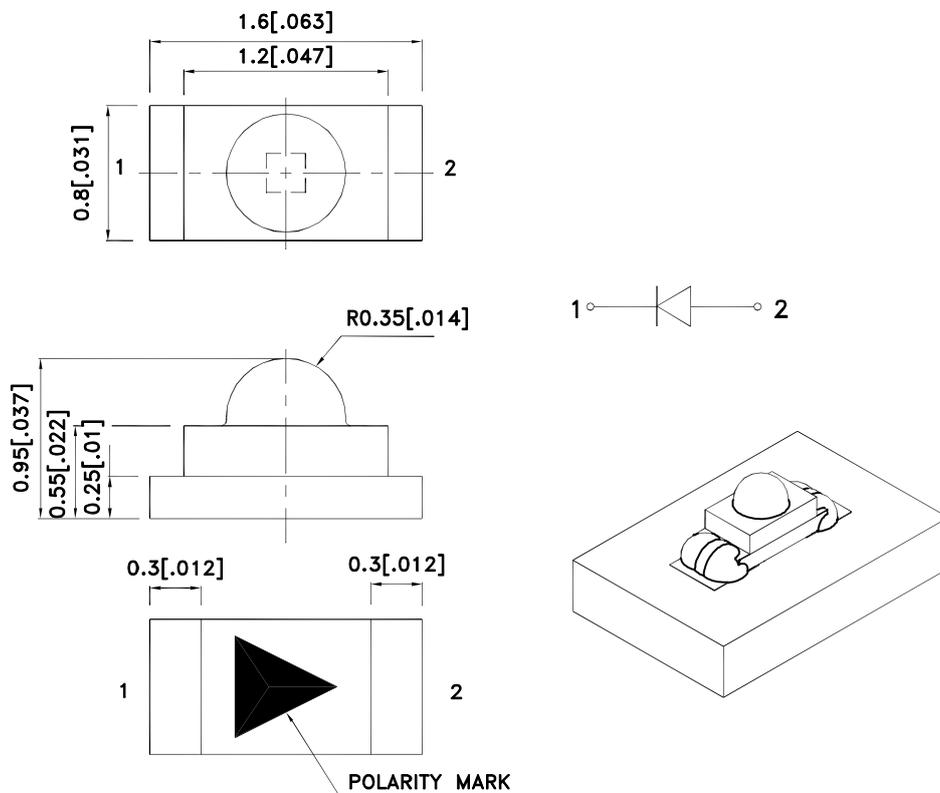
Features

- 1.6mmX0.8mm SMT LED, 0.95mm 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



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.15 (0.006") 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] @ 2mA | | Viewing Angle [1] |
|---------------------|-------------------------------|-------------|-----------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| APTD1608LSYCK/J3-PF | Super Bright Yellow (AlGaInP) | Water Clear | 30 | 55 | 60° |

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 | Min. | Typ. | Max. | Units | Test Conditions |
|--------------------|--------------------------|---------------------|------|------|------|-------|---------------------------|
| λ _{peak} | Peak Wavelength | Super Bright Yellow | | 590 | | nm | I _F =2mA |
| λ _D [1] | Dominant Wavelength | Super Bright Yellow | | 590 | | nm | I _F =2mA |
| Δλ _{1/2} | Spectral Line Half-width | Super Bright Yellow | | 20 | | nm | I _F =2mA |
| C | Capacitance | Super Bright Yellow | | 45 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Super Bright Yellow | 1.5 | 1.85 | 2.1 | V | I _F =2mA |
| I _R | Reverse Current | Super Bright Yellow | | | 10 | uA | V _R =5V |

Notes:

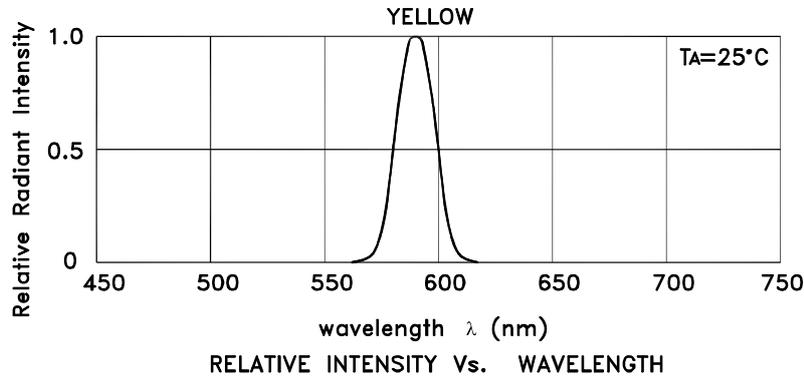
- 1.Wavelength: +/-1nm.
- 2.Forward Voltage: +/-0.1V.
- 3.Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4.Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

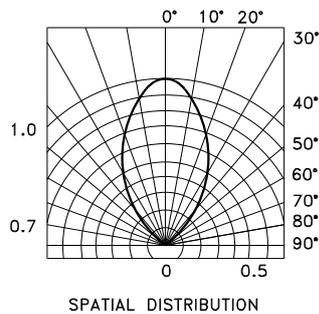
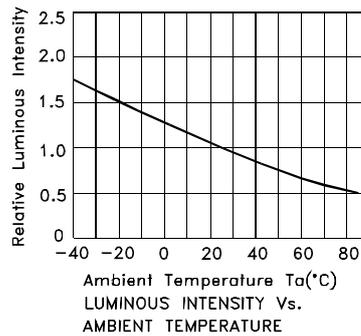
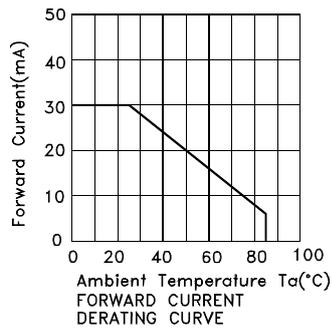
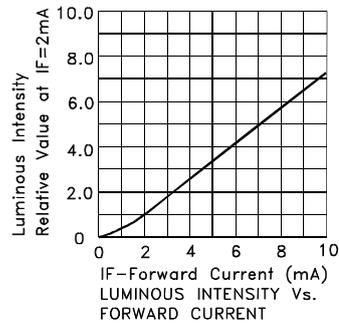
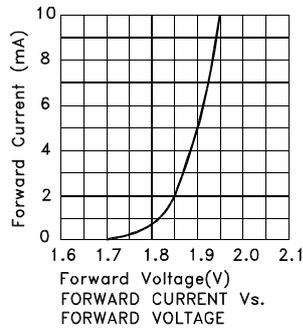
| Parameter | Super Bright Yellow | Units |
|--------------------------|---------------------|-------|
| Power dissipation | 63 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 140 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40°C To +85°C | |
| Storage Temperature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

Note:

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



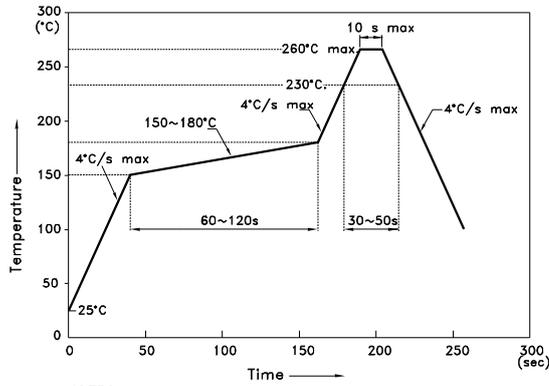
Super Bright Yellow APTD1608LSYCK/J3-PF



APTD1608LSYCK/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.

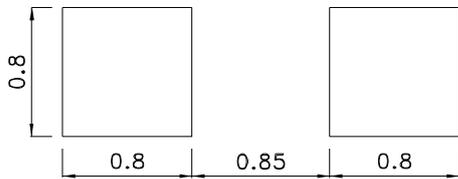
Reflow Soldering Profile For Lead-free SMT Process.



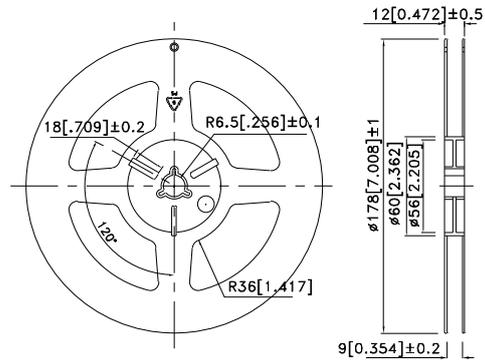
NOTES:

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.

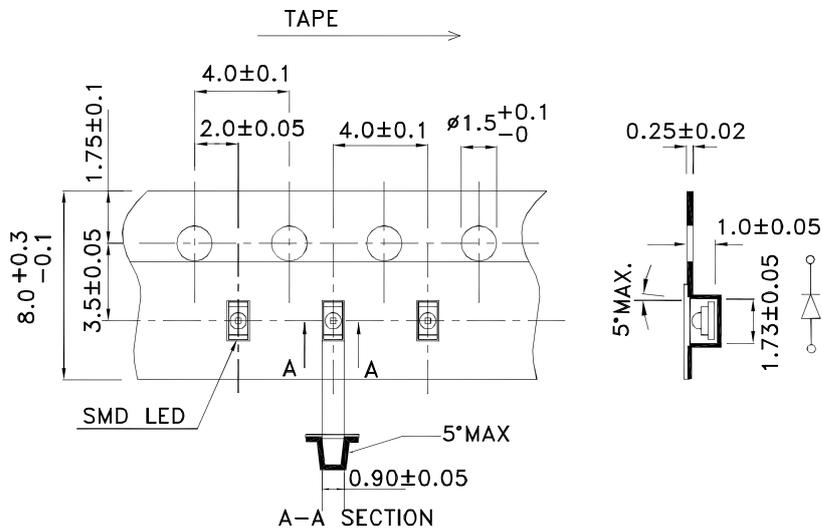
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

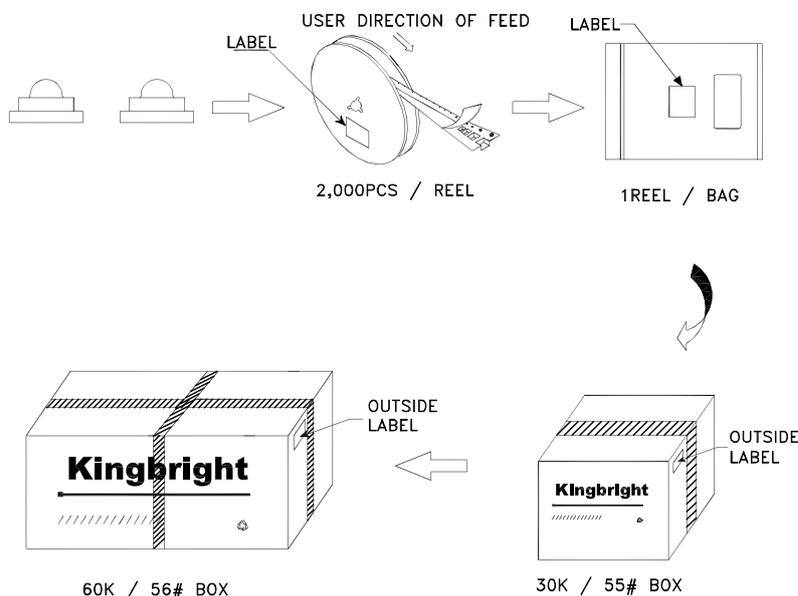


Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APTD1608LSYCK/J3-PF



| | |
|--|--|
| Kingbright | |
| P/NO: APTD1608xxx | |
| QTY: 2,000 pcs | Q.C. Q C XX XX XXXX PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  <small>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</small> | |
| RoHS Compliant | |

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