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3.2mmx1.6mm SMD CHIP LED LAMP

Part Number: APT3216LSECK/J3-PRV Hyper Red

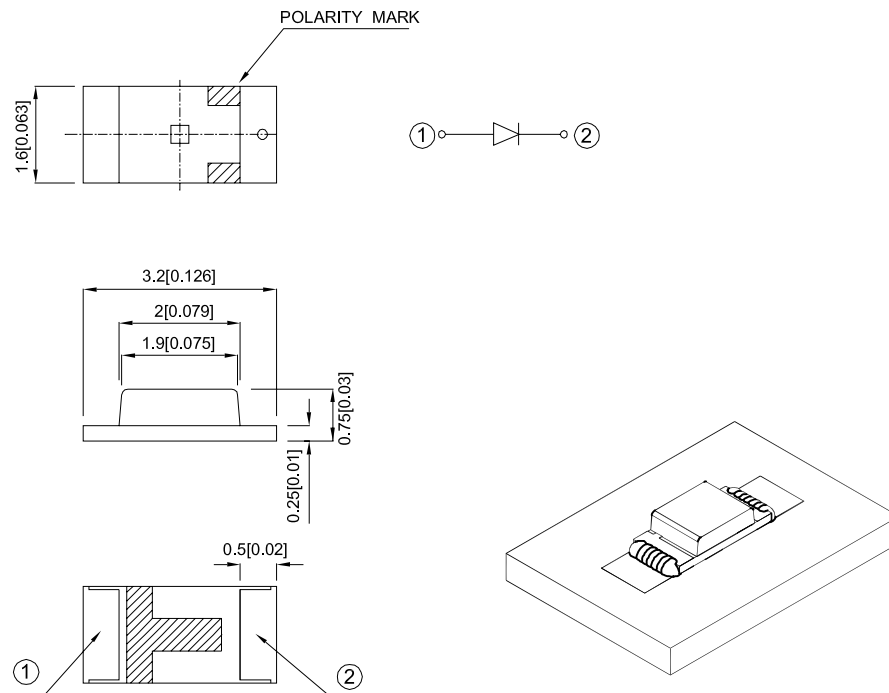
Features

- 3.2mmx1.6mm SMT LED, 0.75mm 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 Hyper Red device is based on light emitting diode chip made from AlGaInP.

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.



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Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 2mA | | Viewing Angle [1] |
|---------------------|---------------------|-------------|-----------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| APT3216LSECK/J3-PRV | Hyper Red (AlGaInP) | Water Clear | 50 | 100 | 120° |
| | | | *20 | *40 | |

Notes:

- θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
- Luminous intensity/ luminous Flux: +/-15%.
- * 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 |
|--------|--------------------------|-----------|------|------|------|-------|-----------------|
| λpeak | Peak Wavelength | Hyper Red | | 640 | | nm | IF=2mA |
| λD [1] | Dominant Wavelength | Hyper Red | | 625 | | nm | IF=2mA |
| Δλ1/2 | Spectral Line Half-width | Hyper Red | | 20 | | nm | IF=2mA |
| C | Capacitance | Hyper Red | | 27 | | pF | VF=0V;f=1MHz |
| VF [2] | Forward Voltage | Hyper Red | 1.5 | 1.8 | 2.1 | V | IF=2mA |
| IR | Reverse Current | Hyper Red | | | 10 | uA | VR=5V |

Notes:

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

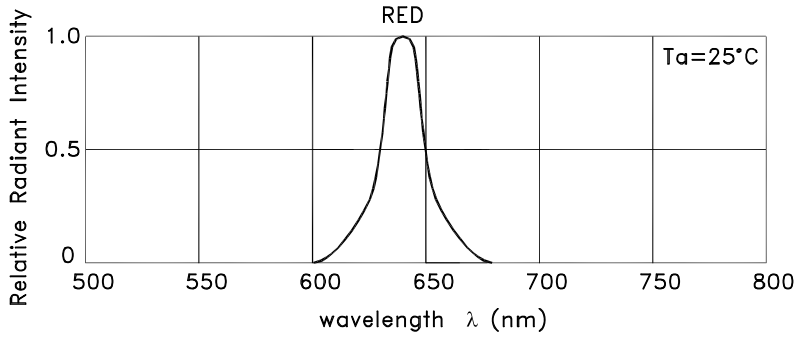
Absolute Maximum Ratings at TA=25°C

| Parameter | Hyper Red | Units |
|--------------------------|----------------|-------|
| Power dissipation | 63 | 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 | |

Note:

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

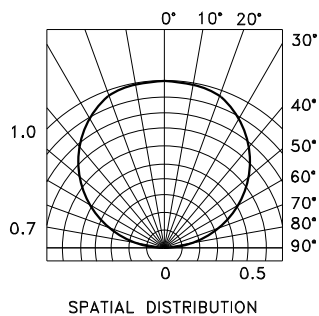
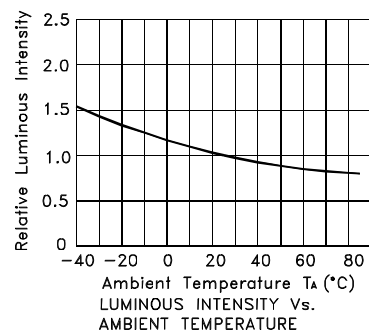
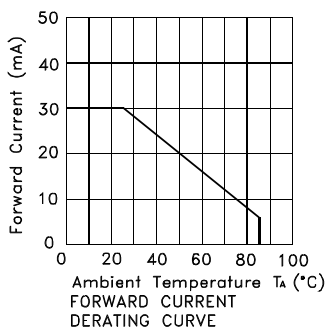
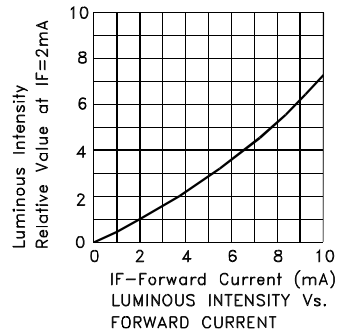
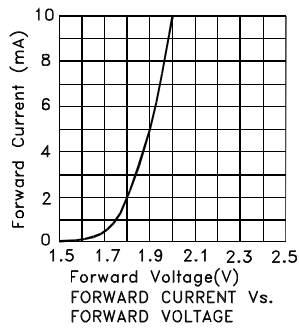
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RELATIVE INTENSITY Vs. WAVELENGTH

Hyper Red

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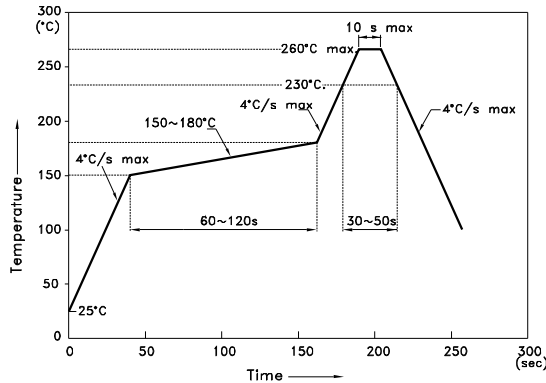


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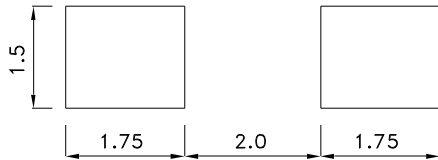
Reflow soldering is recommended and the soldering profile is shown below.
 Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

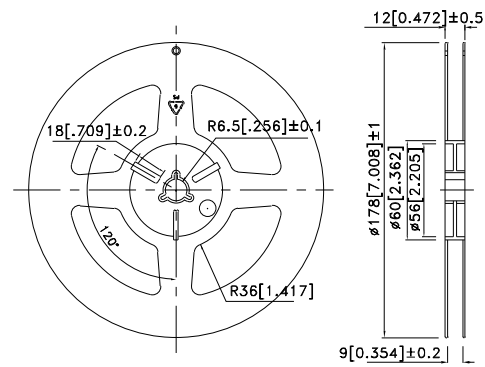


- NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
 2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
 3. Number of reflow process shall be 2 times or less.

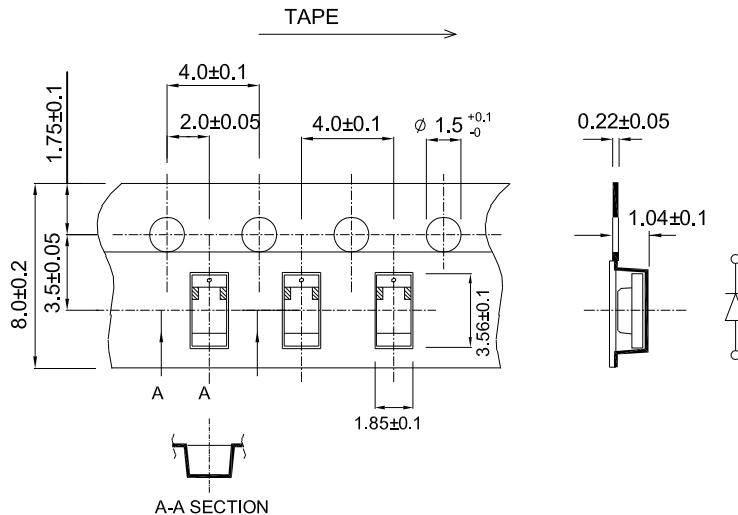
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



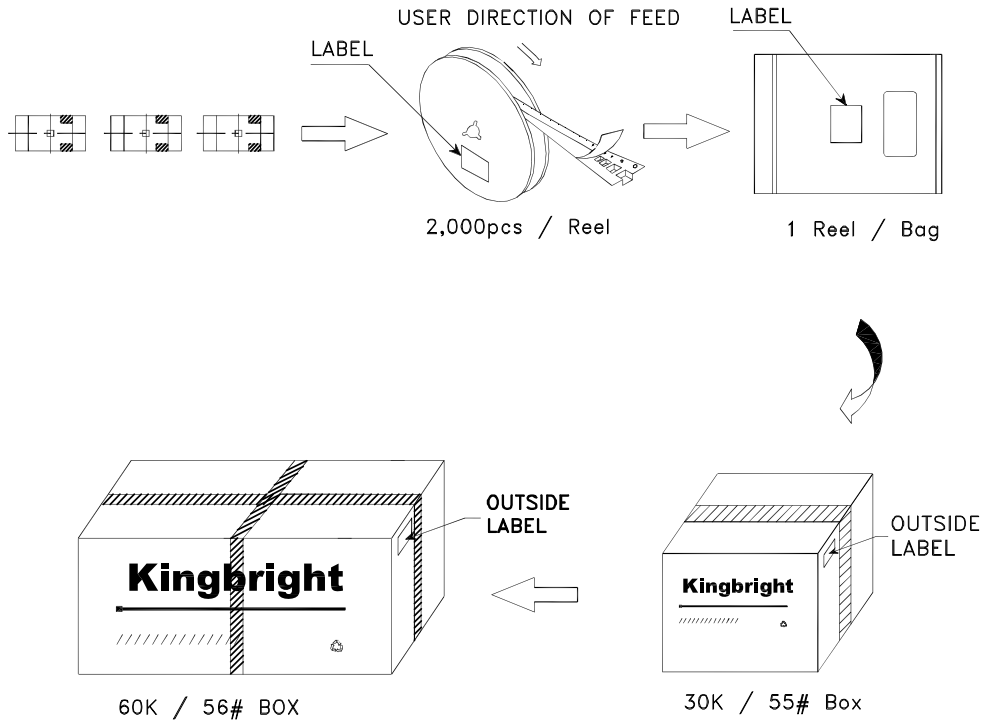
Tape Dimensions (Units : mm)




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PACKING & LABEL SPECIFICATIONS

APT3216LSECK/J3-PRV



| | |
|---|--|
| <h1>Kingbright</h1> | |
| P/NO: APT3216xxx | |
| QTY: 2,000 pcs | Q.C. Q C xx xx xxxx PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  <small>xxxxxxxxxxxxxxxxxxxxxxxx</small> | |
| RoHS Compliant | |

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