

1.6X0.8mm SMD CHIP LED LAMP

Part Number: KP-1608SRC-J4

Super Bright Red

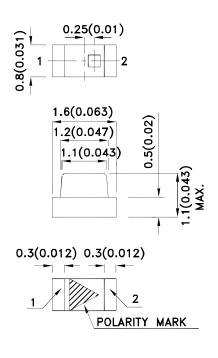
Features

- 1.6mmX0.8mm SMT LED, 1.1mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package: 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

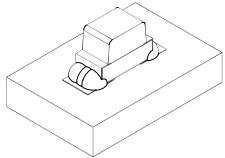
Description

The Super Bright Red source color devices are made with AlGaInP on Si substrate Light Emitting Diode.

Package Dimensions











- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.1 (0.004")$ 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 | lv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|---------------|----------------------------|-------------|------------------------|------|----------------------|
| | | , | Min. | Тур. | 201/2 |
| KP-1608SRC-J4 | Super Bright Red (AlGaInP) | Water Clear | 400 | 600 | 120° |
| | | Water Clear | *120 | *200 | |

- 1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|------------------|------|------|-------|--------------------|
| λpeak | Peak Wavelength | Super Bright Red | 660 | | nm | IF=20mA |
| λD [1] | Dominant Wavelength | Super Bright Red | 640 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Half-width | Super Bright Red | 20 | | nm | IF=20mA |
| С | Capacitance | Super Bright Red | 45 | | pF | VF=0V;f=1MHz |
| VF [2] | Forward Voltage | Super Bright Red | 2.1 | 2.5 | V | IF=20mA |
| lR | Reverse Current | Super Bright Red | | 10 | uA | V _R =5V |

- 1.Wavelength: +/-1nm.
- Forward Voltage: +/-0.1V.
 Wavelength value is traceable to the CIE127-2007 compliant national standards.

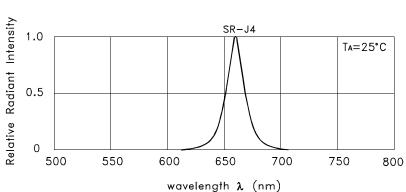
Absolute Maximum Ratings at TA=25°C

| Absolute maximum Ratings at TA-23 C | | | | | |
|-------------------------------------|------------------|----|--|--|--|
| Parameter | Super Bright Red | | | | |
| Power dissipation | 75 | 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 | | | | |

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

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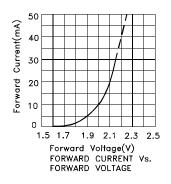
Luminous intensity/ luminous Flux: +/-15%.
 *Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

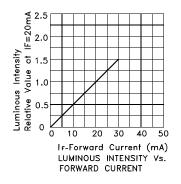


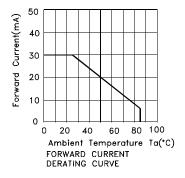
RELATIVE INTENSITY Vs. WAVELENGTH

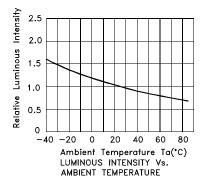
Super Bright Red

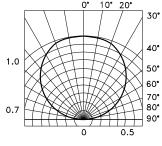
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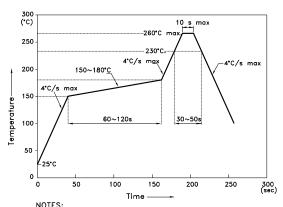
SPATIAL DISTRIBUTION

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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.
 - to high temperature.

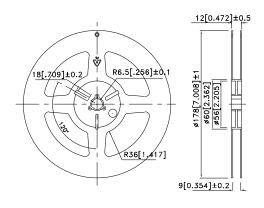
 3.Number of reflow process shall be 2 times or less.

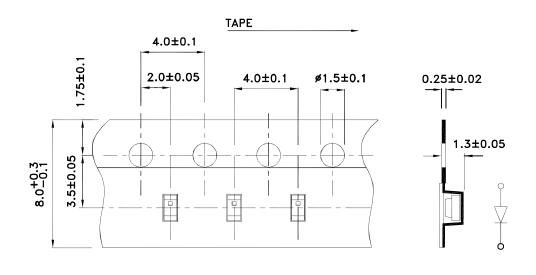
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

ο 0.8 0.85 0.8

Tape Dimensions (Units : mm)

Reel Dimension

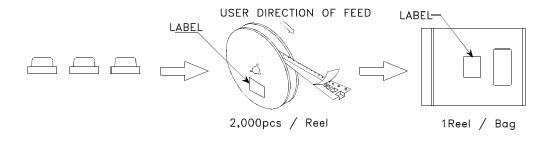


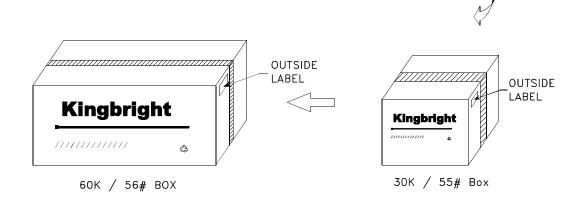


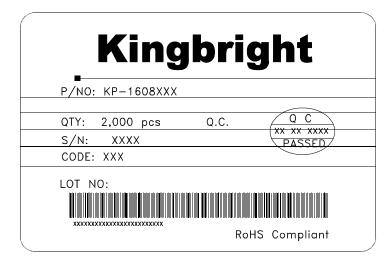
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PACKING & LABEL SPECIFICATIONS









Detailed application notes are listed on our website. http://www.kingbright.com/application_notes

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