

Selection Guide

| Part No. | Dice | Lens Type | Iv (ucd) [1] @ 10mA | | Description |
|-------------|-------------------------------|----------------|------------------------|--------|---------------------------------|
| | | | Min. | Typ. | |
| KCPSA04-106 | Super Bright Orange (AlGaInP) | White Diffused | 21000 | 44000 | Common Anode, Rt. Hand Decimal. |
| | | | *5600 | *13000 | |

Notes:

1. 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 | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|---------------------|------|------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | Super Bright Orange | 610 | | nm | I _F =20mA |
| λ_D [1] | Dominant Wavelength | Super Bright Orange | 601 | | nm | I _F =20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Super Bright Orange | 29 | | nm | I _F =20mA |
| C | Capacitance | Super Bright Orange | 15 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Super Bright Orange | 2.1 | 2.5 | V | I _F =20mA |
| I _R | Reverse Current | Super Bright Orange | | 10 | uA | V _R =5V |

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

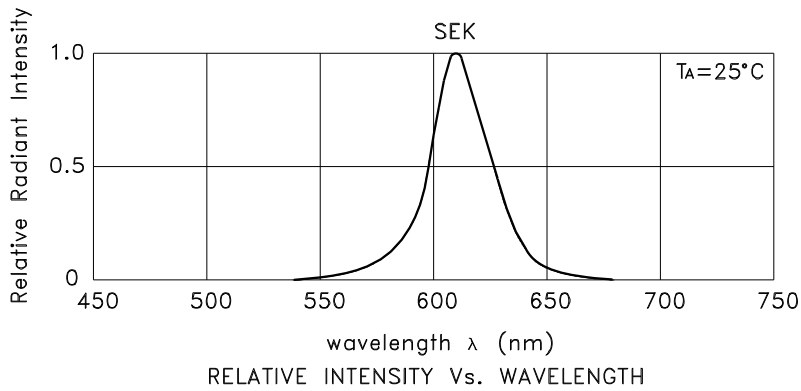
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

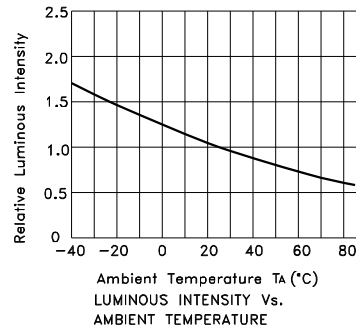
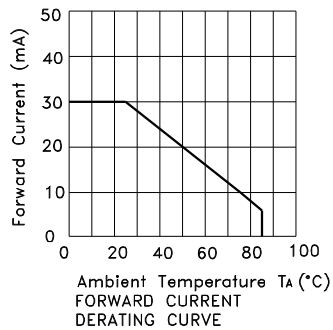
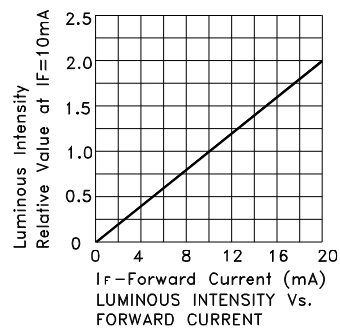
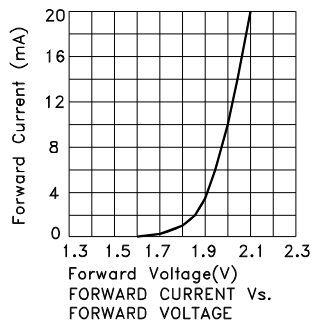
| Parameter | Super Bright Orange | Units |
|---------------------------------|---------------------|-------|
| Power dissipation | 75 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 195 | mA |
| Reverse Voltage | 5 | V |
| Operating / Storage Temperature | -40°C To +85°C | |

Note:

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

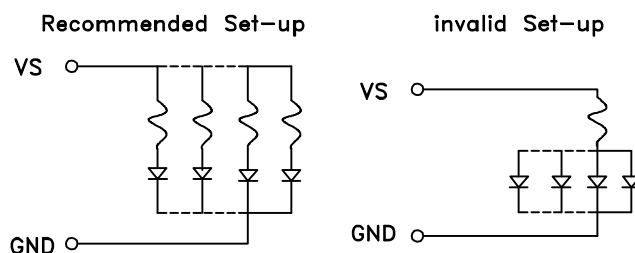


Super Bright Orange KCPSA04-106



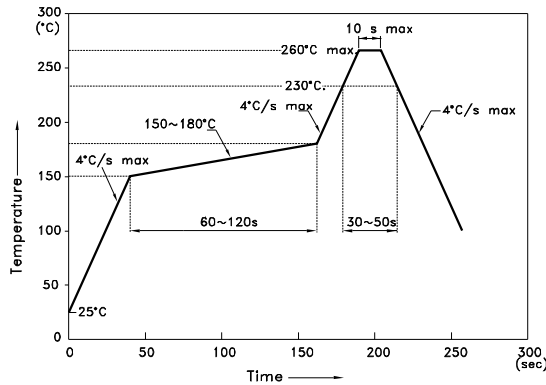
CIRCUIT DESIGN NOTES

1. Protective current-limiting resistors may be necessary to operate the Displays.
2. LEDs mounted in parallel should each be placed in series with its own current-limiting resistor.



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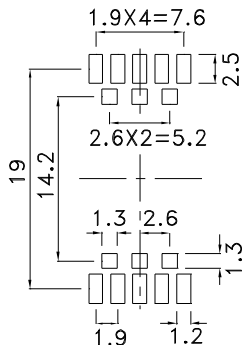
Reflow Soldering Profile For Lead-free SMT Process.



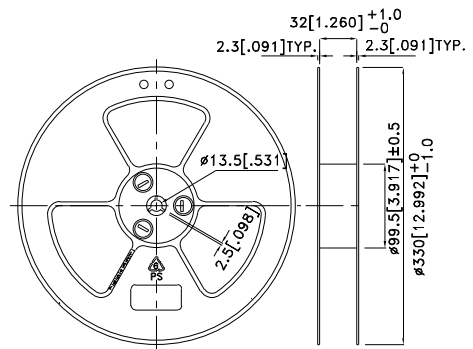
NOTES:

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.

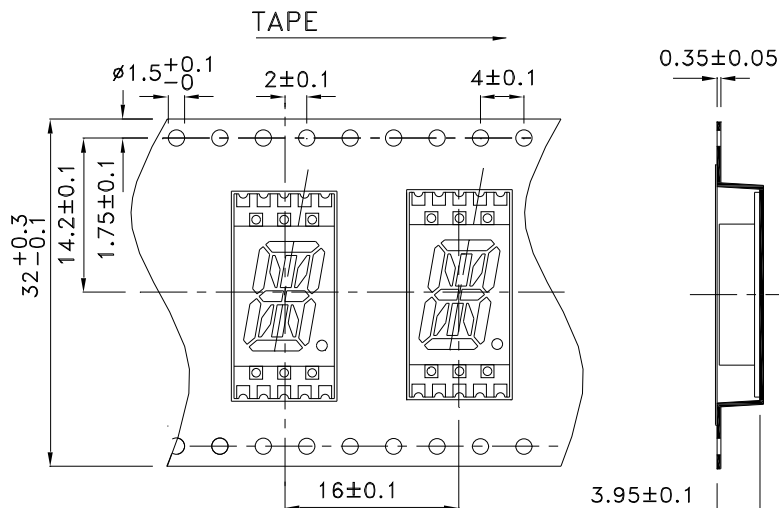
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.15)



Reel Dimension

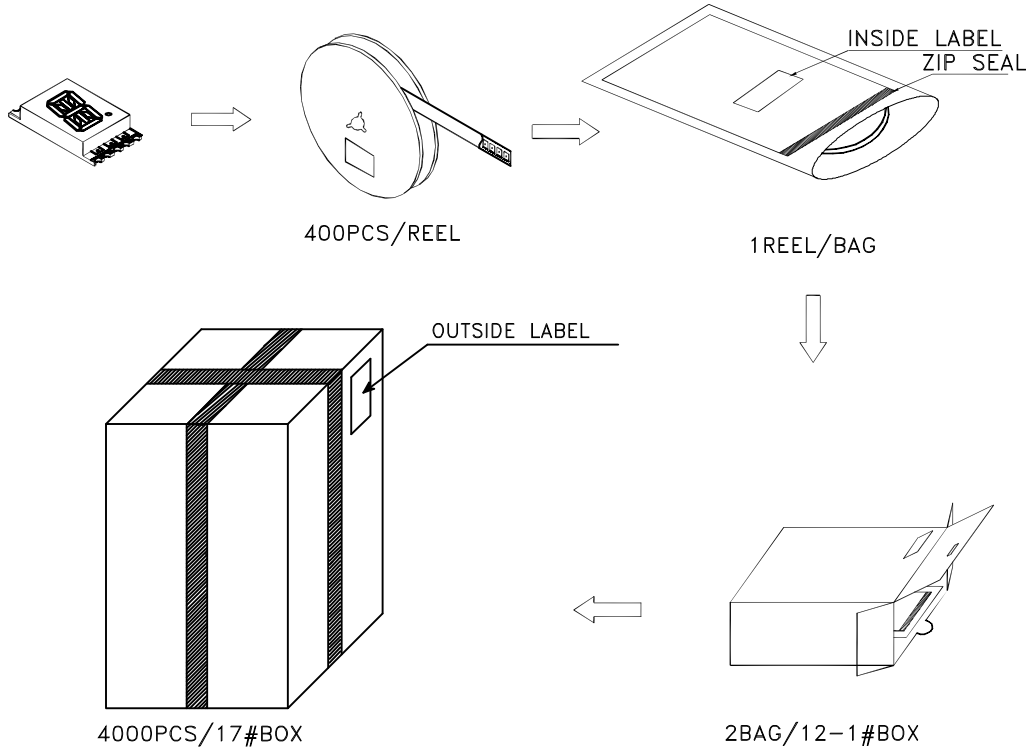


Tape Specifications (Units : mm)

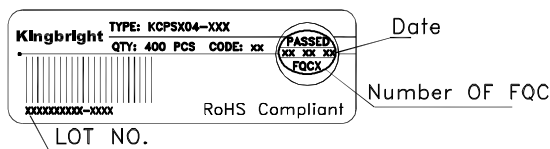


PACKING & LABEL SPECIFICATIONS

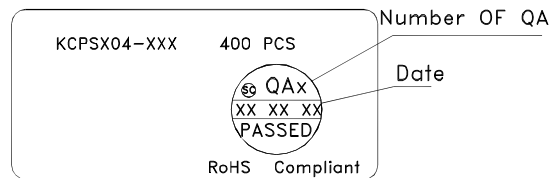
KCPSA04-106



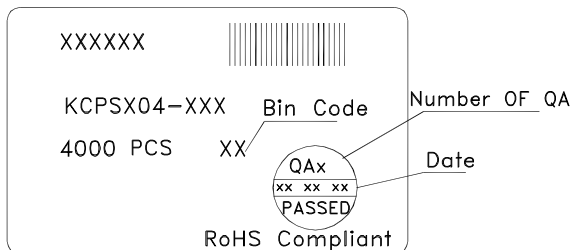
Inside Label On Tape



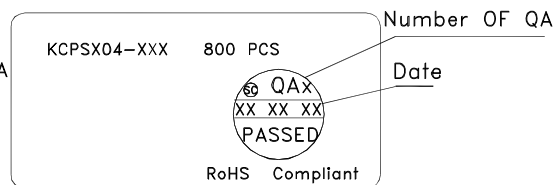
Outside Label On Bag



Outside Label On 17#Box



Outside Label On 12-1#Box



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