

3.2mm x 1.6mm BI-COLOR SURFACE MOUNT **LED LAMP**

Part Number: KPTCBD-3216SYKCGKC

Super Bright Yellow Green

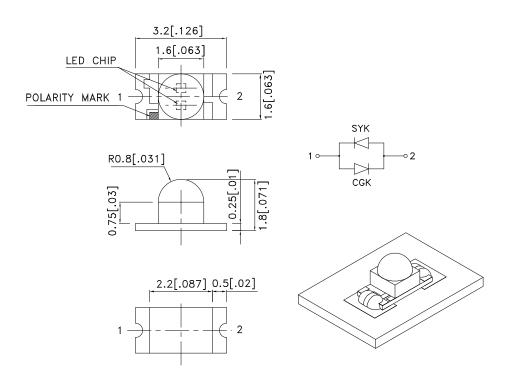
Features

- 3.2mmx1.6mm SMT LED,1.8mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Descriptions

- The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.
- The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

Package Dimensions





- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.1 (0.004")$ unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 The device has a single mounting surface. The device must be mounted according to the specifications.

SPEC NO: DSAL5852 **REV NO: V.2B** DATE: MAR/11/2014 PAGE: 1 OF 6 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: F.Cui ERP: 1203007175

Selection Guide

| Part No. | Dice | Lens Type | lv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|--------------------|-------------------------------|-------------|------------------------|------|----------------------|
| | | | Min. | Тур. | 201/2 |
| KPTCBD-3216SYKCGKC | Super Bright Yellow (AlGalnP) | Water Clear | 200 | 400 | 40° |
| | Green (AlGalnP) | Water Clear | 120 | 250 | |

Notes:

- 1. θ 1/2 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 | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|------------------------------|------------|------------|-------|-----------------|
| λpeak | Peak Wavelength | Super Bright Yellow Green | 590 574 | | nm | IF=20mA |
| λD [1] | Dominant Wavelength | Super Bright Yellow Green | 590 570 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Half-width | Super Bright Yellow Green | 20 20 | | nm | IF=20mA |
| С | Capacitance | Super Bright Yellow Green | 20 15 | | pF | VF=0V;f=1MHz |
| VF [2] | Forward Voltage | Super Bright Yellow Green | 2 2.1 | 2.5 2.5 | V | IF=20mA |

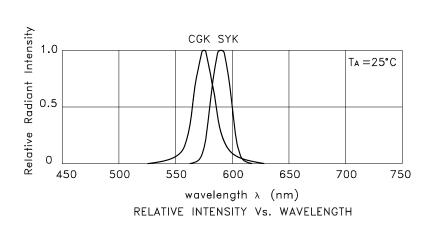
- Notes:
 1.Wavelength: +/-1nm.
 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

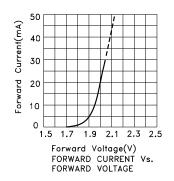
| Parameter | Super Bright Yellow | Green | Units | | |
|--------------------------|---------------------|-------|-------|--|--|
| Power dissipation | 75 | 75 | mW | | |
| DC Forward Current | 30 | 30 | mA | | |
| Peak Forward Current [1] | 175 | 150 | mA | | |
| Operating Temperature | -40°C To +85°C | | | | |
| Storage Temperature | -40°C To +85°C | | | | |

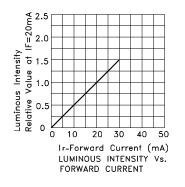
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

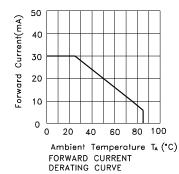
SPEC NO: DSAL5852 **REV NO: V.2B** DATE: MAR/11/2014 PAGE: 2 OF 6 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: F.Cui ERP: 1203007175

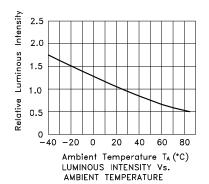


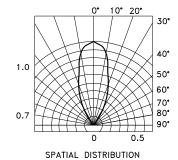
KPTCBD-3216SYKCGKC Super Bright Yellow





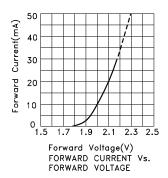


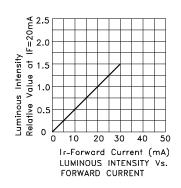


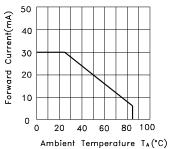


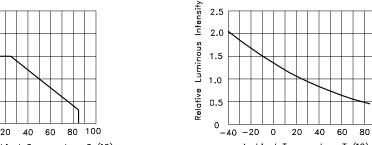
SPEC NO: DSAL5852 REV NO: V.2B DATE: MAR/11/2014 PAGE: 3 OF 6
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: F.Cui ERP: 1203007175

Green





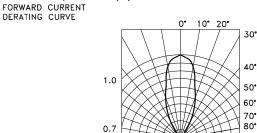




2.5

2.0

90°



Ambient Temperature T_A (°C) LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

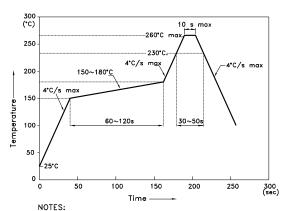
SPATIAL DISTRIBUTION

SPEC NO: DSAL5852 **REV NO: V.2B** DATE: MAR/11/2014 PAGE: 4 OF 6 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: F.Cui ERP: 1203007175

KPTCBD-3216SYKCGKC

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.



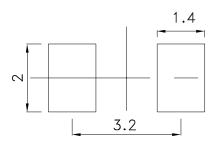
- NOTES:

 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.

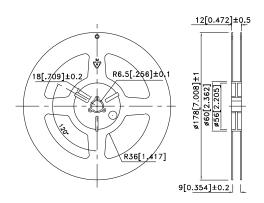
 3.Number of reflow process shall be 2 times or less.

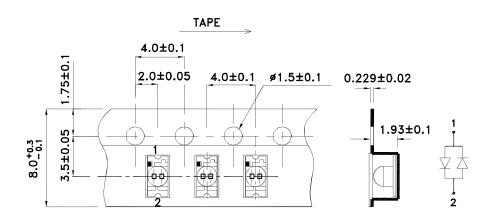
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



Tape Dimensions (Units : mm)

Reel Dimension

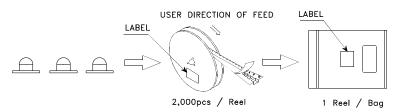


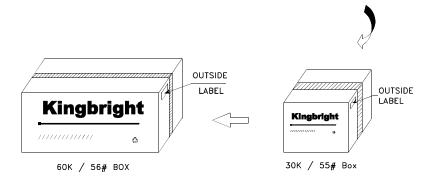


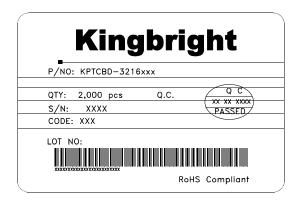
SPEC NO: DSAL5852 **REV NO: V.2B** DATE: MAR/11/2014 PAGE: 5 OF 6 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: F.Cui ERP: 1203007175

PACKING & LABEL SPECIFICATIONS

KPTCBD-3216SYKCGKC







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SPEC NO: DSAL5852 REV NO: V.2B DATE: MAR/11/2014 PAGE: 6 OF 6

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