

3.2x1.6mm SMD CHIP LED LAMP

Part Number: KPTD-3216CGCK Green

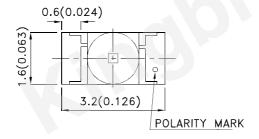
Features

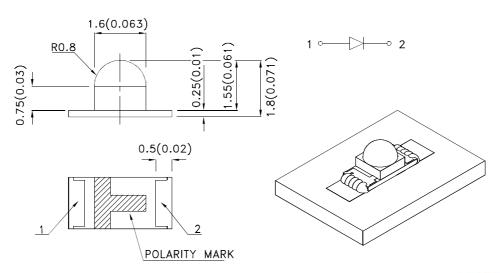
- 3.2mmX1.6mm SMD LED, 1.8mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

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 $\pm 0.2(0.008")$ 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: DSAA8108 **REV NO: V.21B DATE: MAR/15/2016** PAGE: 1 OF 5 ERP: 1203002217 **APPROVED: Wynec CHECKED: Allen Liu** DRAWN: J.L.Liang



Selection Guide

| Part No. | Emitting Color (Material) | Lens Type | lv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|---------------|---------------------------|-----------|------------------------|------|----------------------|
| | | | Min. | Тур. | 201/2 |
| KPTD-3216CGCK | 3216CGCK Green (AlGaInP) | | 120 | 300 | 35° |

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 CIE127-2007 standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Emitting Color | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|----------------|------|------|-------|-----------------|
| λpeak | Peak Wavelength | Green | 574 | 10 | nm | IF=20mA |
| λD [1] | Dominant Wavelength | Green | 570 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Half-width | Green | 20 | | nm | IF=20mA |
| С | Capacitance | Green | 15 | | pF | VF=0V;f=1MHz |
| VF [2] | Forward Voltage | Green | 2.1 | 2.5 | V | IF=20mA |
| lr | Reverse Current | Green | | 10 | uA | VR=5V |

Notes

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

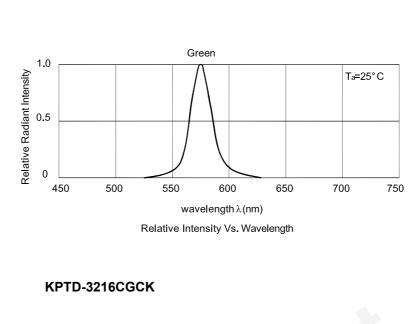
| Parameter | Values | Units | |
|--------------------------|----------------|-------|--|
| Power dissipation | 75 | mW | |
| DC Forward Current | 30 | mA | |
| Peak Forward Current [1] | 150 | mA | |
| Reverse Voltage | 5 | V | |
| Operating Temperature | -40°C To +85°C | | |
| Storage Temperature | -40°C To +85°C | | |

Notes:

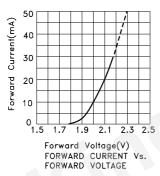
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

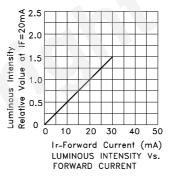
SPEC NO: DSAA8108 REV NO: V.21B DATE: MAR/15/2016 PAGE: 2 OF 5
APPROVED: Wynec CHECKED: Allen Liu DRAWN: J.L.Liang ERP: 1203002217

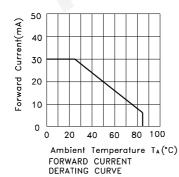
Kingbright

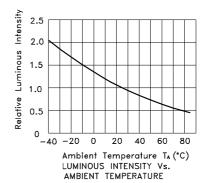


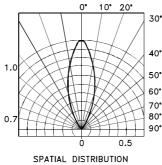
Green











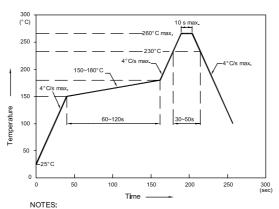
SPEC NO: DSAA8108 **REV NO: V.21B** DATE: MAR/15/2016 PAGE: 3 OF 5 **APPROVED:** Wynec **CHECKED: Allen Liu** ERP: 1203002217 **DRAWN: J.L.Liang**

Kingbright

KPTD-3216CGCK

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.

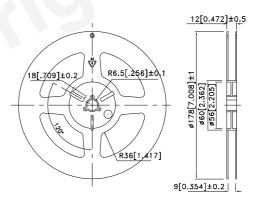


- 1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed
- to high temperature.
 3.Number of reflow process shall be 2 times or less.

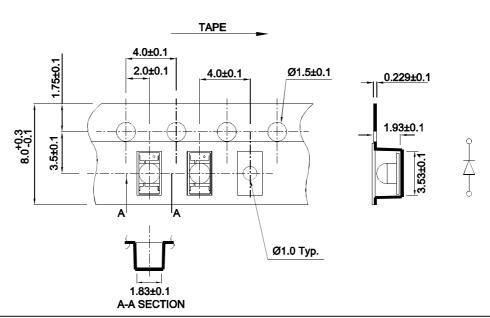
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

1.75 2.0 1.75

Reel Dimension



Tape Dimensions (Units: mm)



SPEC NO: DSAA8108 APPROVED: Wynec REV NO: V.21B CHECKED: Allen Liu DATE: MAR/15/2016 DRAWN: J.L.Liang PAGE: 4 OF 5 ERP: 1203002217

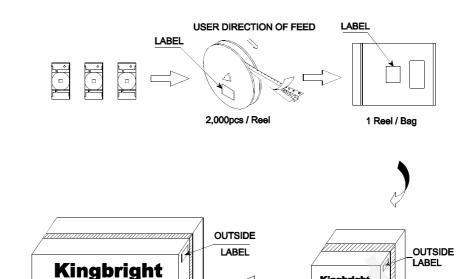
Kingbright

PACKING & LABEL SPECIFICATIONS

KPTD-3216CGCK

Kingbright

30K / 55# Box





Terms and conditions for the usage of this document

60K / 56# BOX

- 1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
- 2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
- 3. When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, Kingbright will not be responsible for any subsequent issues
- 4. The information in this document applies to typical usage in consumer electronics applications. If customer's application has special reliability requirements or have life-threatening liabilities, such as automotive or medical usage, please consult with Kingbright representative for further assistance.
- 5. The contents and information of this document may not be reproduced or re-transmitted without permission by Kingbright.
- 6. All design applications should refer to Kingbright application notes available at http://www.kingbright.com/application_notes

SPEC NO: DSAA8108 REV NO: V.21B DATE: MAR/15/2016 PAGE: 5 OF 5 **CHECKED: Allen Liu APPROVED: Wynec** ERP: 1203002217 **DRAWN: J.L.Liang**