

# 1.6x0.6mm RIGHT ANGLE SMD CHIP LED **LAMP**

Part Number: KPA-1606YC

Yellow

PAGE: 1 OF 5

ERP: 1203000482

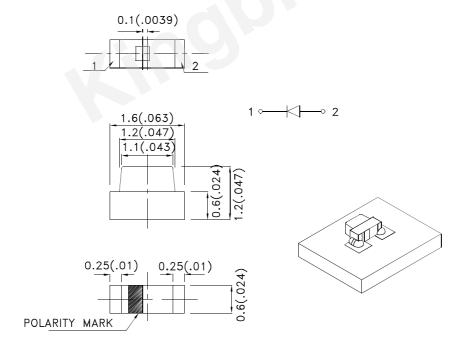
## **Features**

- 1.6mmx0.6mm right angle SMT LED,1.2mm 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.
- Tinned pads for improved solderability.
- RoHS compliant.

# **Description**

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

# **Package Dimensions**



- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is ±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: DSAD2523 **REV NO: V.5B** DATE: OCT/26/2012 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: C.H.Han

# **Selection Guide**

| Part No.   | Dice Lens Type     |             | lv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|------------|--------------------|-------------|------------------------|------|----------------------|
|            |                    |             | Min.                   | Тур. | 201/2                |
| KPA-1606YC | Yellow (GaAsP/GaP) | Water Clear | 3                      | 6    | 110°                 |

### Notes:

- 1. 01/2 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 the CIE127-2007 compliant national standards.

# Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter                | Device | Тур. | Max. | Units | Test Conditions    |
|--------|--------------------------|--------|------|------|-------|--------------------|
| λpeak  | Peak Wavelength          | Yellow | 590  |      | nm    | IF=20mA            |
| λD [1] | Dominant Wavelength      | Yellow | 588  |      | nm    | IF=20mA            |
| Δλ1/2  | Spectral Line Half-width | Yellow | 35   |      | nm    | IF=20mA            |
| С      | Capacitance              | Yellow | 20   |      | pF    | VF=0V;f=1MHz       |
| VF [2] | Forward Voltage          | Yellow | 2.1  | 2.5  | V     | IF=20mA            |
| lr     | Reverse Current          | Yellow |      | 10   | uA    | V <sub>R</sub> =5V |

## Notes:

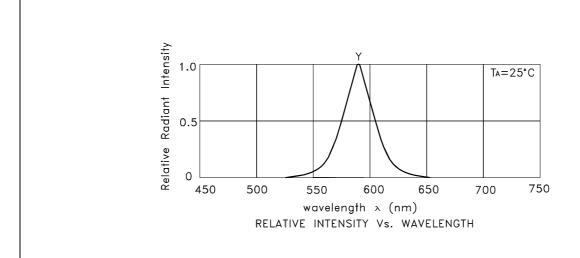
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

# Absolute Maximum Ratings at TA=25°C

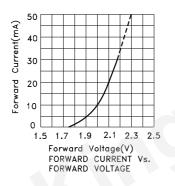
| Parameter                | Yellow         | Units |  |  |  |  |
|--------------------------|----------------|-------|--|--|--|--|
| Power dissipation        | 75             | mW    |  |  |  |  |
| DC Forward Current       | 30             | mA    |  |  |  |  |
| Peak Forward Current [1] | 140            | mA    |  |  |  |  |
| Reverse Voltage          | 5              | V     |  |  |  |  |
| Operating Temperature    | -40°C To +85°C |       |  |  |  |  |
| Storage Temperature      | -40°C To +85°C |       |  |  |  |  |

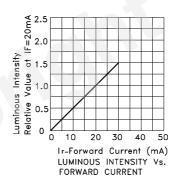
Note: 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

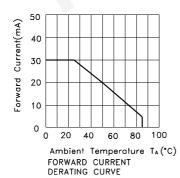
SPEC NO: DSAD2523 **REV NO: V.5B** DATE: OCT/26/2012 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: C.H.Han ERP: 1203000482

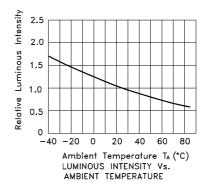


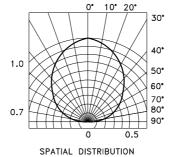
Yellow KPA-1606YC











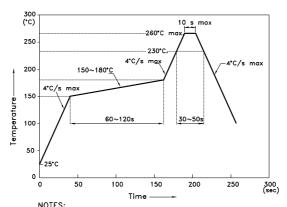
 SPEC NO: DSAD2523
 REV NO: V.5B
 DATE: OCT/26/2012
 PAGE: 3 OF 5

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# **KPA-1606YC**

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.

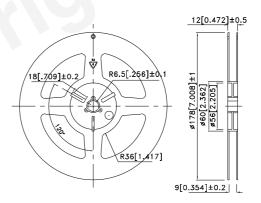
3.Number of reflow process shall be 2 times or less.

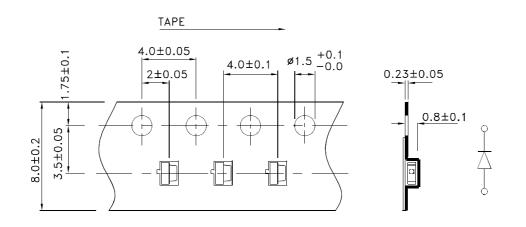
# **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)

# 0.9 1.6

# **Tape Dimensions** (Units: mm)

# **Reel Dimension**





SPEC NO: DSAD2523 **REV NO: V.5B** DATE: OCT/26/2012 PAGE: 4 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: C.H.Han ERP: 1203000482

# PACKING & LABEL SPECIFICATIONS USER DIRECTION OF FEED LABEL 2,000pcs / Reel 1 Reel / Bag OUTSIDE LABEL Kingbright Kingbright



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

60K / 56# BOX

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30K / 55# BOX

PAGE: 5 OF 5 ERP: 1203000482

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