

### 1.6X0.8mm SMD CHIP LED LAMP

Part Number: KPT-1608LVVBC-D Blue



**ATTENTION** OBSERVE PRECAUTIONS FOR HANDLING **ELECTROSTATIC** DISCHARGE SENSITIVE **DEVICES** 

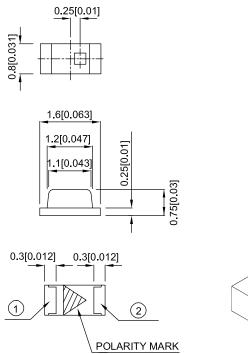
### **Features**

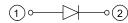
- 1.6mmX0.8mm SMD LED, 0.75mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- Low current IF=2mA operating.
- RoHS compliant.

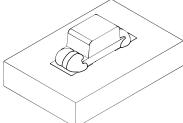
### **Descriptions**

- The Blue source color devices are made with InGaN Light Emitting Diode.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or antielectrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

# **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: DSAO6846 **REV NO: V.1B** DATE: JAN/27/2016 PAGE: 1 OF 5 APPROVED: Wynec **CHECKED: Allen Liu** DRAWN: M.Liu ERP: 1203014458



### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	Iv (mcd) [2] @ 2mA		Viewing Angle [1]
		2.	Min.	Тур.	201/2
KPT-1608LVVBC-D	Blue (InGaN)	Water Clear	15	24	120°

### Notes:

- 1. θ1/2 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 CIE127-2007 standards.

# Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	<b>Emitting Color</b>	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	465		nm	IF=2mA
λD [1]	Dominant Wavelength	Blue	470		nm	IF=2mA
Δλ1/2	Spectral Line Half-width	Blue	22		nm	IF=2mA
С	Capacitance	Blue	100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue	2.65	3	V	IF=2mA
lr	Reverse Current	Blue		50	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	90	mW
DC Forward Current	30	mA
Peak Forward Current [1]	100	mA
Electrostatic Discharge Threshold (HBM)	250	V
Reverse Voltage	5	V
Operating Temperature	re -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.

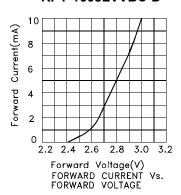
SPEC NO: DSAO6846 **REV NO: V.1B DATE: JAN/27/2016** PAGE: 2 OF 5 APPROVED: Wynec **CHECKED: Allen Liu** DRAWN: M.Liu ERP: 1203014458

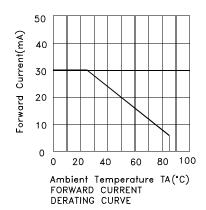
# Kingbright

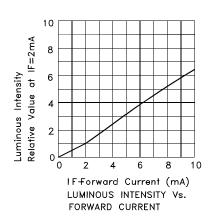


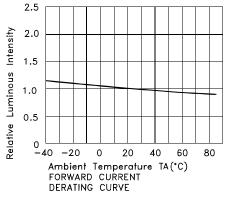
Blue

### KPT-1608LVVBC-D



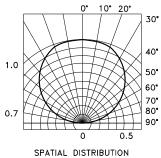






PAGE: 3 OF 5

ERP: 1203014458



SPEC NO: DSAO6846 REV NO: V.1B DATE: JAN/27/2016

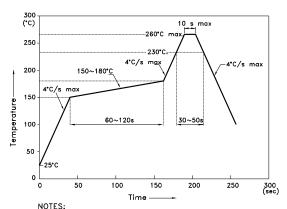
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### KPT-1608LVVBC-D

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.



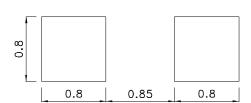
- NOTES:

  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

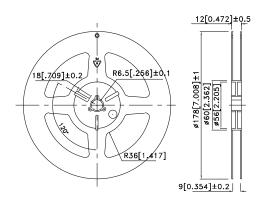
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.

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

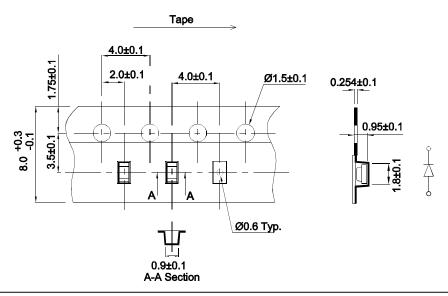
# **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



### **Reel Dimension**



**Tape Dimensions** (Units: mm)



SPEC NO: DSAO6846 APPROVED: Wynec

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PAGE: 4 OF 5 ERP: 1203014458



# PACKING & LABEL SPECIFICATIONS KPT-1608LVVBC-D User Direction of Feed Label 2,000PCS / Reel 1 Reel / Bag

**Kingbright** 

XX XX XXXX

 SPEC NO: DSAO6846
 REV NO: V.1B
 DATE: JAN/27/2016
 PAGE: 5 OF 5

 APPROVED: Wynec
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