

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

Part Number: KPTD-1608LVVBC-D Blue



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

**DEVICES** 

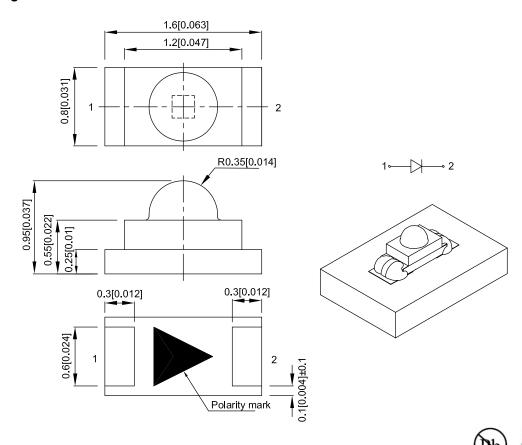
#### **Features**

- 1.6mmX0.8mm SMD LED, 0.95mm 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 ±0.15(0.006") 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.

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#### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 2mA		Viewing Angle [1]
		2.	Min.	Тур.	201/2
KPTD-1608LVVBC-D	Blue (InGaN)	Water Clear	30	65	40°

#### 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	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	V <sub>R</sub> =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

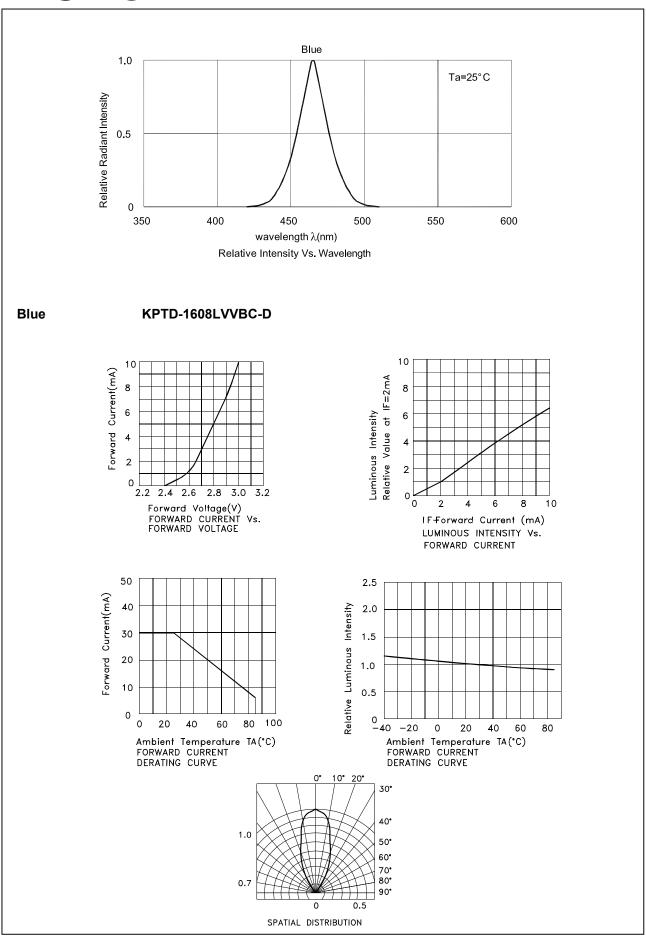
Parameter	Values	Units	
Power dissipation	90	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	100	mA	
Electrostatic Discharge Threshold (HBM)	250	V	
Reverse Voltage	5	V	
Operating Temperature	-40°C To +85°C		
Storage Temperature	ture -40°C To +85°C		

#### 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.

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# **Kingbright**



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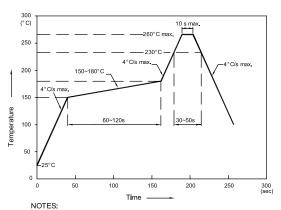
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#### KPTD-1608LVVBC-D

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.

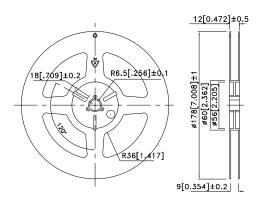


- 1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed to high temperature
- to high temperature.
  3.Number of reflow process shall be 2 times or less.

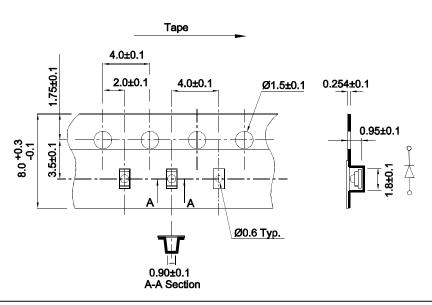
## Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

# 0.8 0.85 0.8

#### **Reel Dimension**



Tape Dimensions (Units : mm)



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## **PACKING & LABEL SPECIFICATIONS** KPTD-1608LVVBC-D User Direction of Feed Label <u>Label</u> 2,000Pcs / Reel 1Reel / Bag Outside Outside Label **Kingbright** Kingbright 30K / 55# Box 60K / 56# Box **Kingbright** P/NO: KPTD-1608xxx QC QTY: 2,000 pcs Q.C. S/N: XXXX PASSED CODE: XXX

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**RoHS Compliant** 

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