

1.0X0.5mm SMD CHIP LED LAMP

Part Number: KPHHS-1005LVQBC-D Blue



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

DEVICES

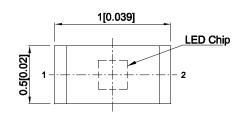
Features

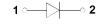
- 1.0mmX0.5mm SMD LED, 0.5mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- Low current IF=2mA operating.
- RoHS compliant.

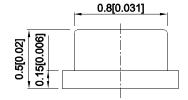
Descriptions

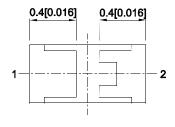
- The Blue source color devices are made with InGaN Light Emitting Diode.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or antielectrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

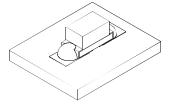
Package Dimensions















- 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.

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Selection Guide

Part No.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 2mA		Viewing Angle [1]
		-	Min.	Тур.	201/2
KPHHS-1005LVQBC-D	Blue (InGaN)	Water Clear	6	15	140°

- 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	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	460		nm	IF=2mA
λD [1]	Dominant Wavelength	Blue	465		nm	IF=2mA
Δλ1/2	Spectral Line Half-width	Blue	25		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 _R =5V

- Notes:
 1. Wavelength: +/-1nm.
 2. Forward Voltage: +/-0.1V.
 3. Wavelength value is traceable to CIE127-2007 standards.
- 4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

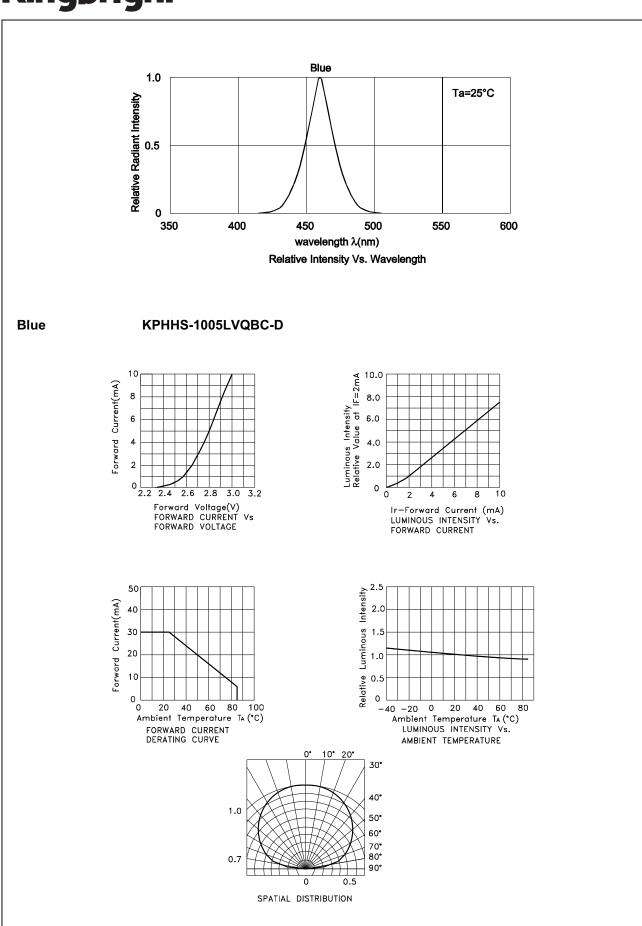
Absolute Maximum Ratings at TA=25°C

Parameter	Values		
Power dissipation	90	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	150		
Electrostatic Discharge Threshold (HBM)	250	V	
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.

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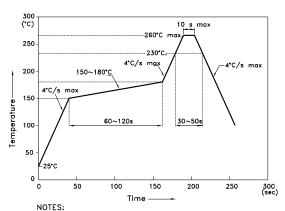
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KPHHS-1005LVQBC-D

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.



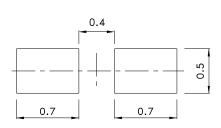
- NOTES:

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

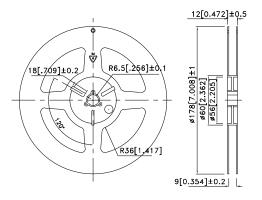
 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.

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

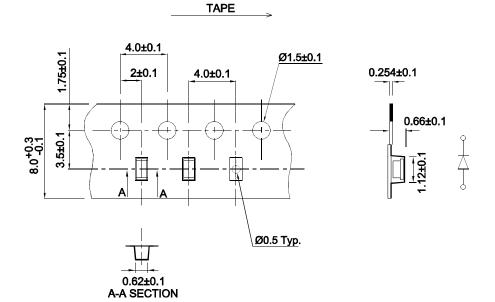
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



Reel Dimension



Tape Dimensions (Units : mm)



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PACKING & LABEL SPECIFICATIONS KPHHS-1005LVQBC-D LABEL USER DIRECTION OF FEED LABEL 2,000pcs / Reel 1 Reel / Bag OUTSIDE LABEL Kingbright Kingbright



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