

# 2.0x1,25mm SMD CHIP LED LAMP

Part Number: KP-2012PBC-A Blue



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

### **Features**

- 2.0mmx1.25mm SMT LED,1.1mm 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.
- RoHS compliant.

# Description

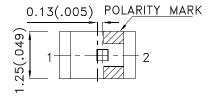
The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

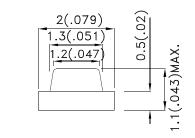
Static electricity and surge damage the LEDS.

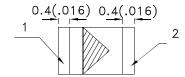
It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

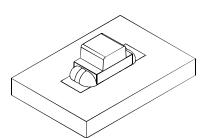
# **Package Dimensions**















### Notes:

- All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.1(0.004")$  unless otherwise noted.
- 3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

4. The device has a single mounting surface. The device must be mounted according to the specifications.

 SPEC NO: DSAF1613
 REV NO: V.12B
 DATE: OCT/22/2013
 PAGE: 1 OF 5

 APPROVED: WYNEC
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 ERP: 1203003729

# **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		2.	Min.	Тур.	201/2
KP-2012PBC-A	Blue (InGaN)	Water Clear	20	50	120°

### 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	Blue	468		nm	IF=20mA
λD [1]	Dominant Wavelength	Blue	465		nm	I==20mA
Δλ1/2	Spectral Line Half-width	Blue	21		nm	IF=20mA
С	Capacitance	Blue	100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue	3.2	4	V	I==20mA
lr	Reverse Current	Blue		10	uA	V <sub>R</sub> =5V

## Notes:

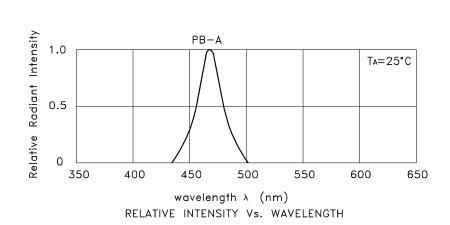
- 1.Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

# Absolute Maximum Ratings at TA=25°C

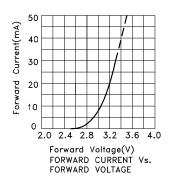
Parameter	Blue	Units		
Power dissipation	120	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	100	mA		
Reverse Voltage	5	V		
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C	-40°C To +85°C		

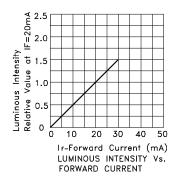
Note: 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

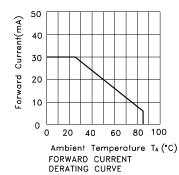
SPEC NO: DSAF1613 **REV NO: V.12B DATE: OCT/22/2013** PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Q.M.Chen ERP: 1203003729

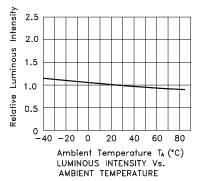


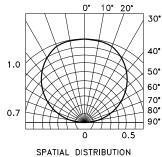
Blue KP-2012PBC-A











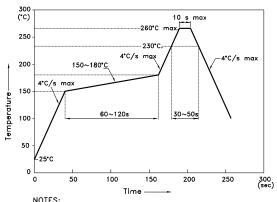
 SPEC NO: DSAF1613
 REV NO: V.12B
 DATE: OCT/22/2013
 PAGE: 3 OF 5

 APPROVED: WYNEC
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## KP-2012PBC-A

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.



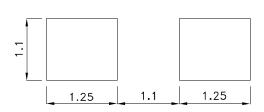
- NOTES:

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

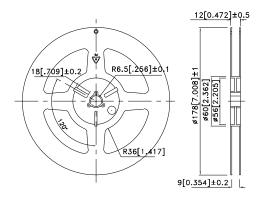
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
- to high temperature.

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

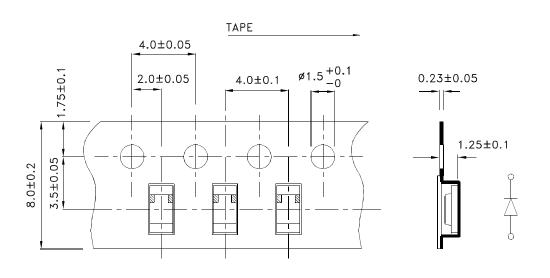
# Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



# **Reel Dimension**



Tape Dimensions (Units: mm)

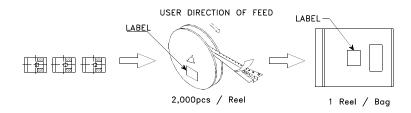


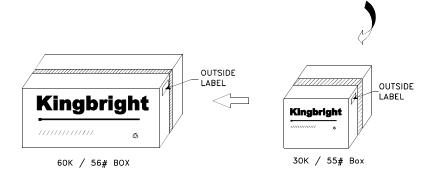
 SPEC NO: DSAF1613
 REV NO: V.12B
 DATE: OCT/22/2013
 PAGE: 4 OF 5

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## **PACKING & LABEL SPECIFICATIONS**

### KP-2012PBC-A







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 SPEC NO: DSAF1613
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