

## 2.0X1.25mm SMD CHIP LED LAMP

APTK2012MBC

BLUE

### Features

- 2.0mmX1.25mm SMT LED, 0.75mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.

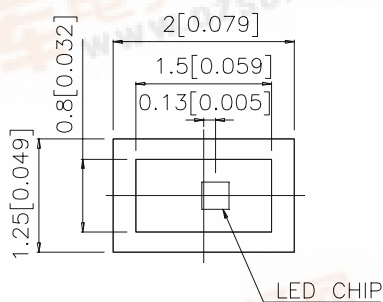
### Description

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

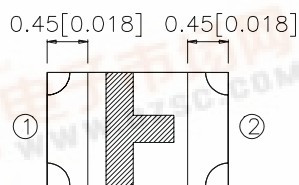
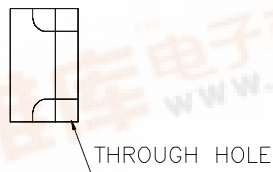
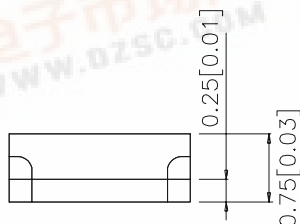
Static electricity and surge damage the LEDs. It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

### Package Dimensions



LED CHIP



POLARITY MARK



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1$  (0.004") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	I <sub>v</sub> (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	θ1/2
APTK2012MBC	BLUE (GaN)	WATER CLEAR	4	14	100°

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	Blue	430		nm	I <sub>F</sub> =20mA
λ <sub>D</sub>	Dominate Wavelength	Blue	466		nm	I <sub>F</sub> =20mA
Δλ <sub>1/2</sub>	Spectral Line Half-width	Blue	60		nm	I <sub>F</sub> =20mA
C	Capacitance	Blue	100		pF	V <sub>F</sub> =0V; f=1MHz
V <sub>F</sub>	Forward Voltage	Blue	3.8	4.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Blue		10	μA	V <sub>R</sub> = 5V

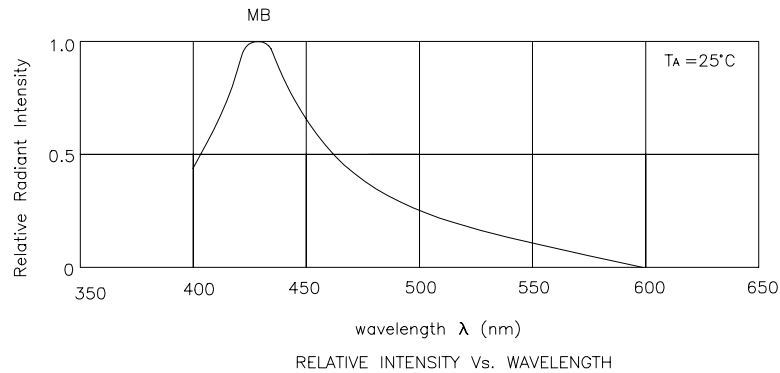
## Absolute Maximum Ratings at T<sub>A</sub>=25°C

Parameter	Blue	Units
Power dissipation	105	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	

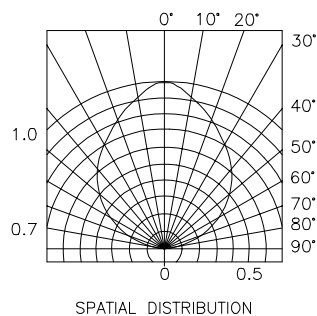
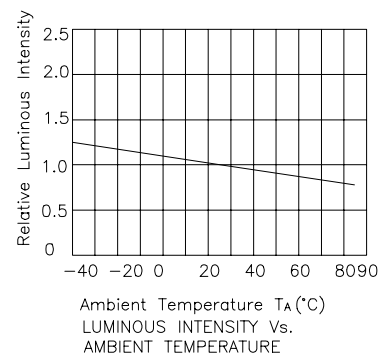
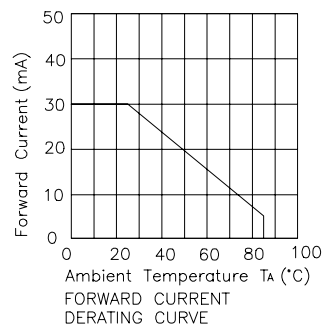
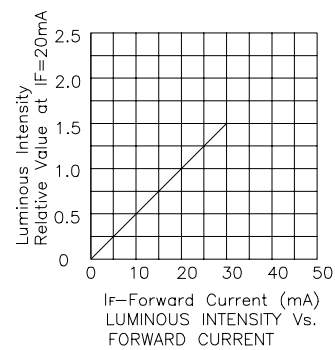
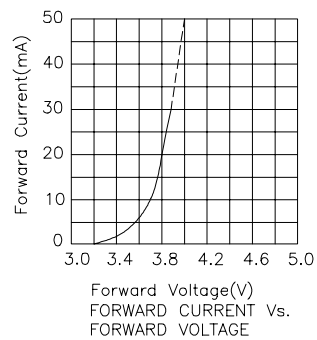
Note:

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

# Kingbright



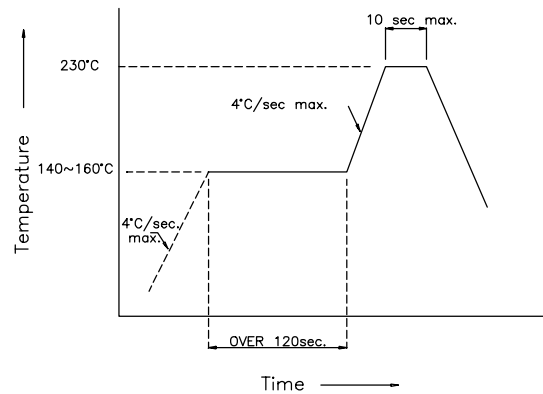
## Blue APTK2012MBC



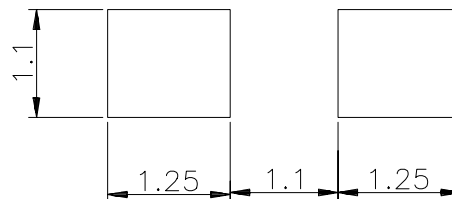
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### SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)

