

### PRELIMINARY SPEC



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

Part Number: APA2106PBC/Z-PRV-SI Blue

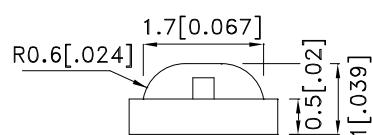
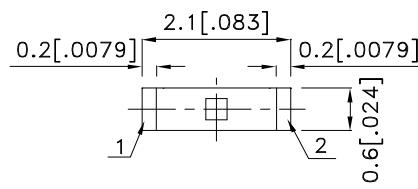
### Features

- 2.1mmX0.6mm right angle SMT LED, 1.0mm 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.

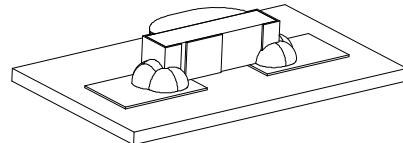
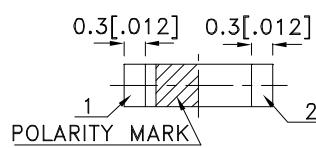
### Description

The Blue source color devices are made with InGaN 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



1 ○ —> ○ 2



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



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## Selection Guide

Part No.	Dice	Lens Type	I <sub>v</sub> (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	
APA2106PBC/Z-PRV-SI	Blue (InGaN)	WATER CLEAR	110	230	120°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

## Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	458		nm	I <sub>f</sub> =20mA
λD [1]	Dominant Wavelength	Blue	465		nm	I <sub>f</sub> =20mA
Δλ1/2	Spectral Line Half-width	Blue	22		nm	I <sub>f</sub> =20mA
C	Capacitance	Blue	110		pF	V <sub>f</sub> =0V;f=1MHz
V <sub>f</sub> [2]	Forward Voltage	Blue	3.2	3.7	V	I <sub>f</sub> =20mA
I <sub>R</sub>	Reverse Current	Blue		10	uA	V <sub>R</sub> =5V

Notes:

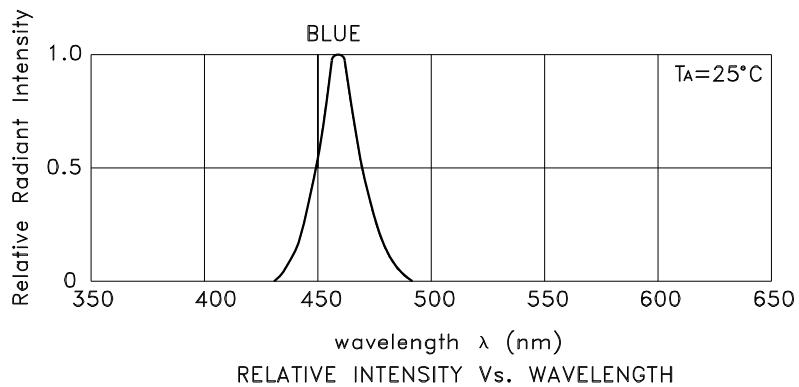
1. Wavelength: +/- 1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

Parameter	Blue	Units
Power dissipation	111	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	

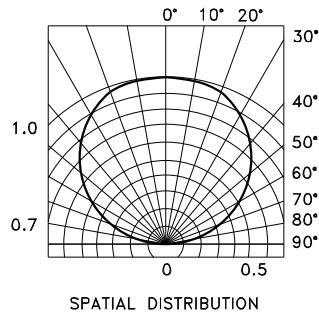
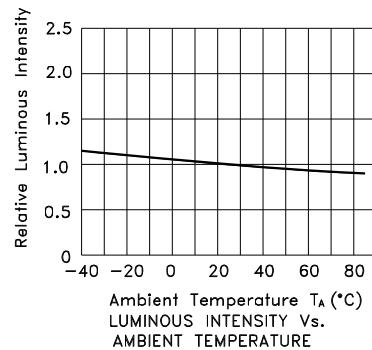
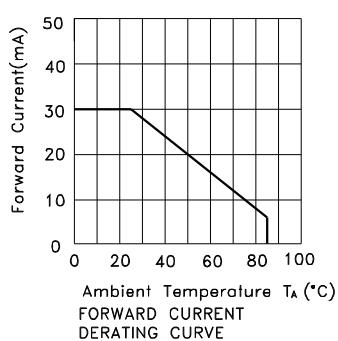
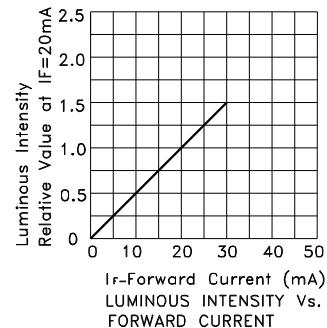
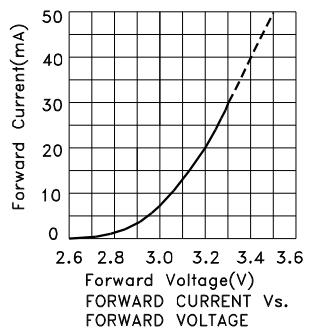
Note:

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



Blue

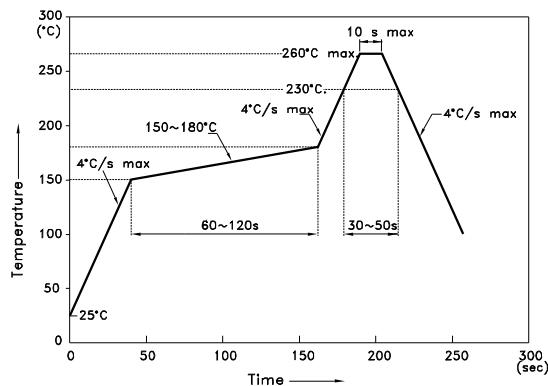
APA2106PBC/Z-PRV-SI



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**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.**

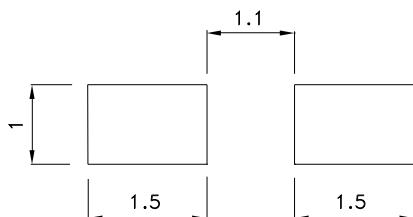
## Reflow Soldering Profile For Lead-free SMT Process.



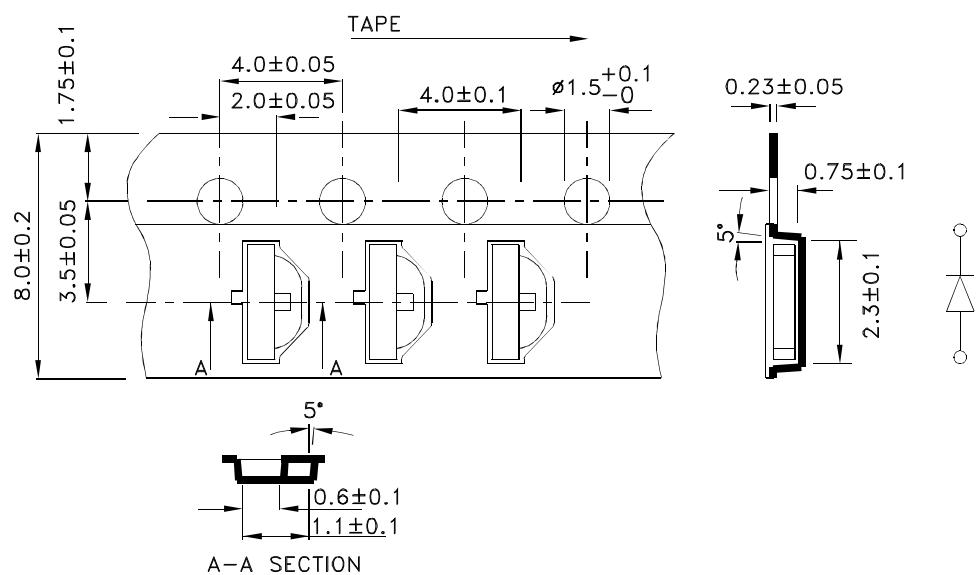
## NOTES:

- 1. We recommend the reflow temperature  $245^{\circ}\text{C}$  ( $+/-5^{\circ}\text{C}$ ). The maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
  - 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: $\pm 0.1$ )



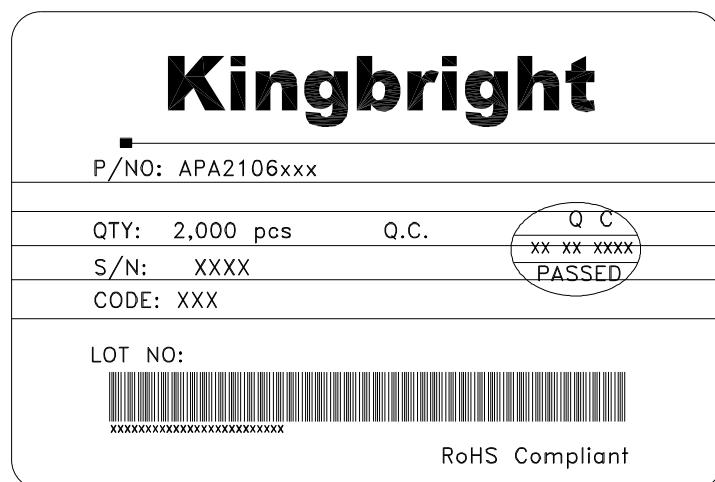
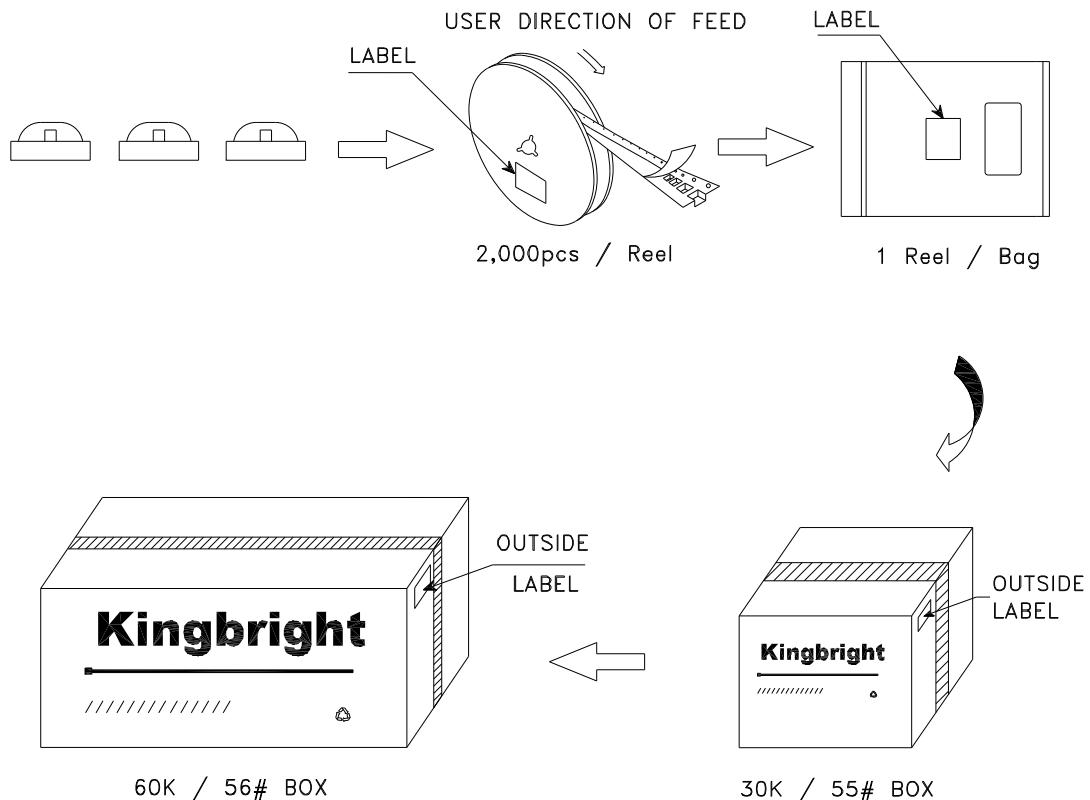
## **Tape Dimensions (Units : mm)**



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## PACKING & LABEL SPECIFICATIONS

APA2106PBC/Z-PRV-SI



# Mouser Electronics

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