

## 3.50\*2.80 SMD

### A-3528BUW-S

#### Features

- Single color.
- Viewing angle:120 deg
- The materials of the LED dice is InGaN
- RoHS compliant lead-free soldering compatible

#### Applications

- Optical indicator
- Indoor display
- Interior automotive lighting
- Backlight for LCD, switch and Symbol, display
- Light pipe application
- General use

#### Ordering Information

PART NO.	SIZE	Dice	Lens Type
A-3528BUW-S	3.50*2.80*1.00mm	WHITE (InGaN)	Yellow Diffused

Luminous intensity(mcd)		Luminous flux(lm)	
Min.	Typ.	Min.	Typ.
2000	2300	6.5	7.0

## Maximum Ratings

Parameter	Symbol	Value	Unit
Operating temperature	T <sub>OP</sub>	-20 ~ 85	°C
Storage temperature	T <sub>STG</sub>	-35 ~ 85	°C
Forward current (T <sub>A</sub> =25 °C)	I <sub>F</sub>	30	mA
Pulse Forward Current	I <sub>FP</sub>	100	mA
Reverse voltage (T <sub>A</sub> =25 °C)	V <sub>R</sub>	5	V
Electrostatic Discharge (HBM)	ESD	1000	V
Power Dissipation	Pd	105	mW

\*<sup>1</sup> at 1/10 Duty Cycle

## Electrical / Optical Characteristics

(T<sub>A</sub> = 25 °C)

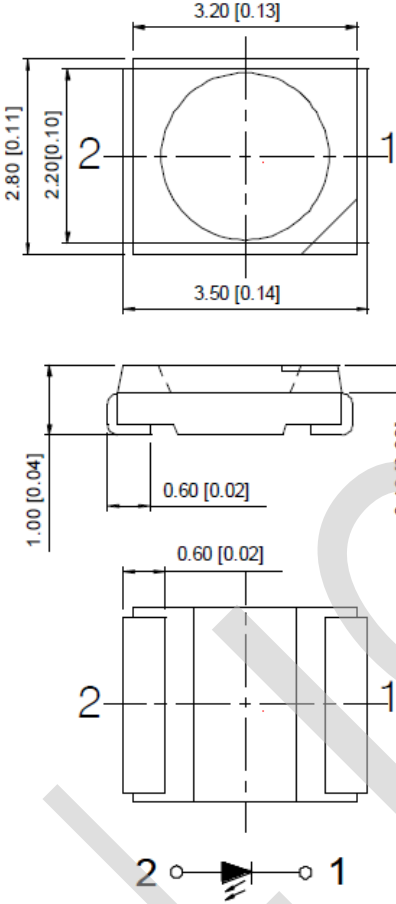
Parameter	Symbol	Value	Unit
Viewing angle at 50% I <sub>F</sub> = 20mA	(Typ.) <b>2θ</b> <sub>1/2</sub>	120	degree
Forward voltage I <sub>F</sub> = 20mA	(Min.) <b>V<sub>F</sub></b>	2.80	V
	(Typ.) <b>V<sub>F</sub></b>	3.10	V
	(Max.) <b>V<sub>F</sub></b>	3.40	V
Reverse current V <sub>R</sub> = 5V	(Max.) I <sub>R</sub>	10	μA
Color Rending Index V <sub>R</sub> = 5V	(Min.) -	70	-
Color Temperature I <sub>F</sub> = 20mA	(Typ.) <b>T<sub>c</sub></b>	6000	K

## Luminous Intensity and Luminous Flux

(T<sub>A</sub> = 25 °C & I<sub>F</sub> = 20 mA)

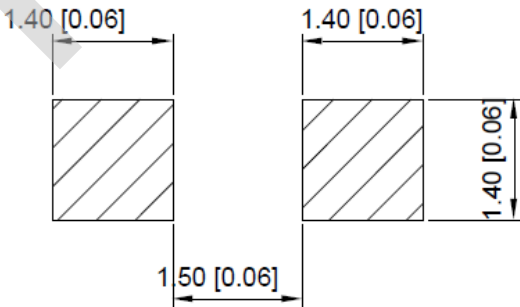
Luminous intensity(mcd)		Luminous flux(lm)	
Min.	Typ.	Min.	Typ.
2000	2300	6.5	7.0

Package Dimensions



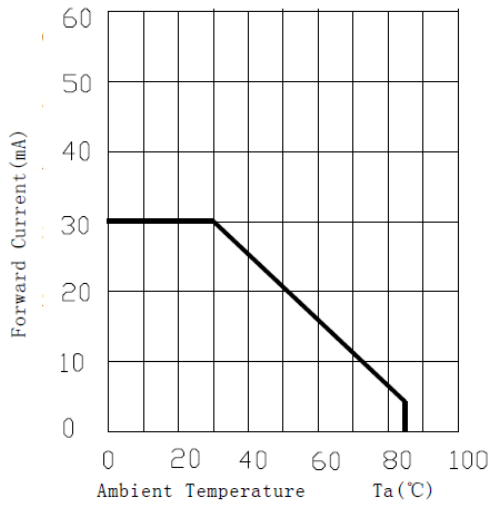
- Notes:  
1. All dimension units are millimeters.  
2. All dimension tolerance is  $\pm 0.15$ mm unless otherwise noted.

Recommended Soldering

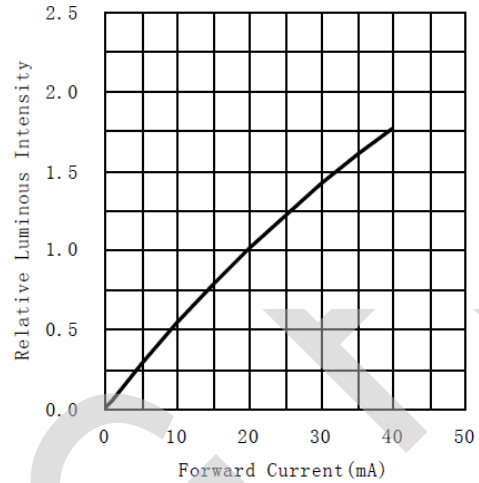


**Electrical/Optical Characteristic**

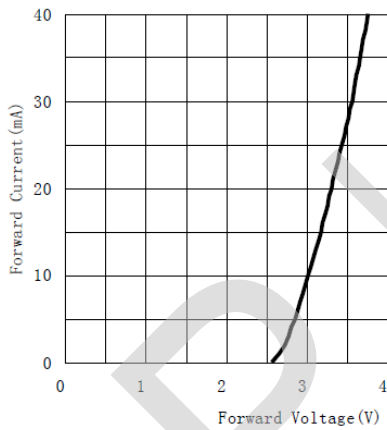
Ambient Temperature VS. Forward Current



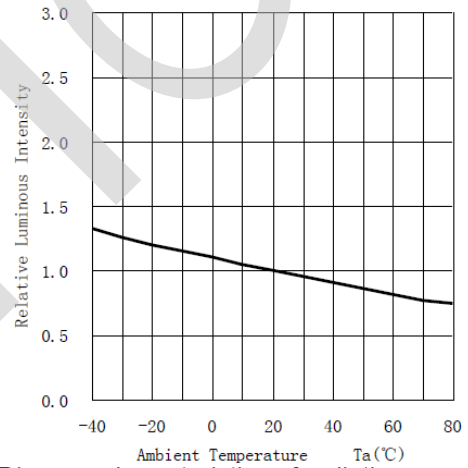
Forward Current VS. Relative Intensity



Forward Voltage VS. Forward Current



Ambient Temperature VS. Relative Intensity



Relative spectral emission

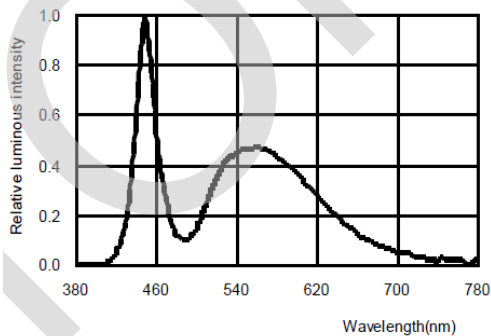
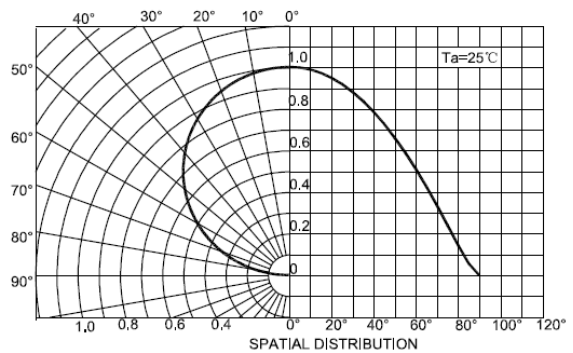
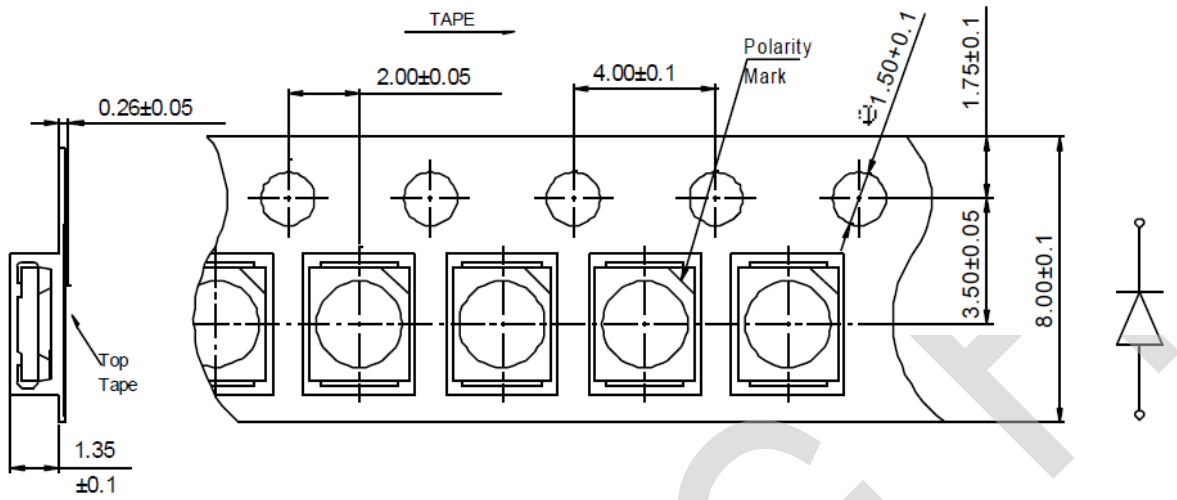


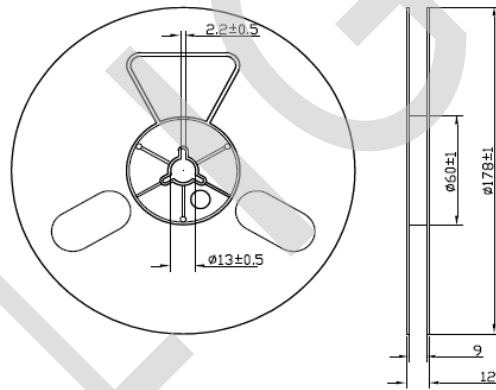
Diagram characteristics of radiation



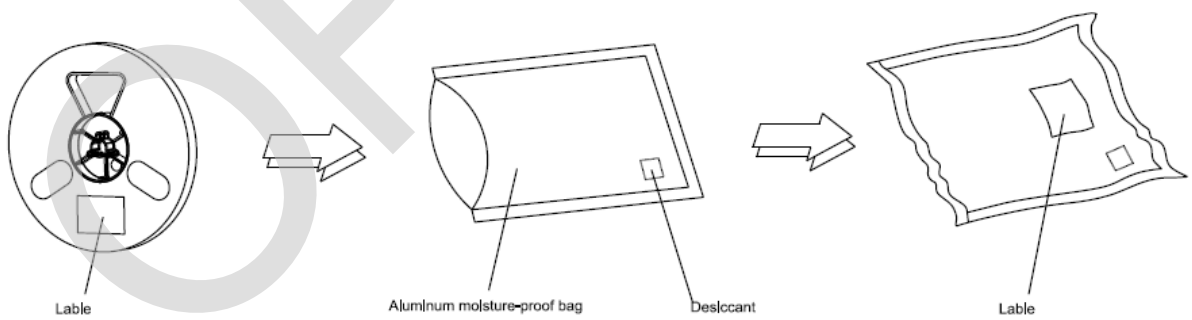
**Package Outline Dimensions**



**Reel Dimensions**

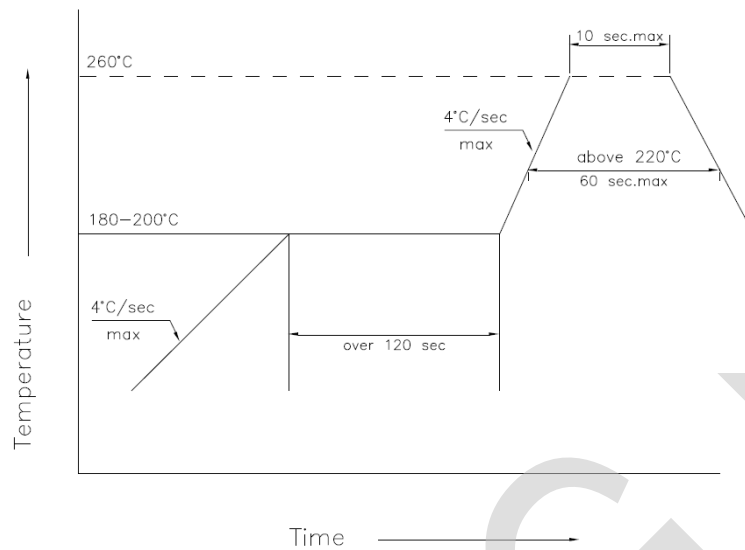


**Moisture Resistant Packaging**



Note: The tolerances unless mentioned is  $\pm 0.1\text{mm}$  , Unit: mm

## SMT Reflow Soldering Instructions



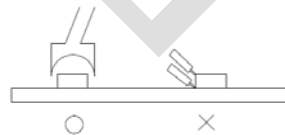
- 1.Reflow soldering should not be done more than two times
- 2.When soldering , do not put stress on the LEDs during heating

### Soldering iron

- 1.When hand soldering, the temperature of the iron must less than 300°C for 3 seconds
- 2.The hand solder should be done only one times

### Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of LEDs will or will not be damaged by repairing.



### Cautions

The encapsulated material of the LEDs is silicone. Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs. Precautions should be taken to avoid the strong pressure on the encapsulated part. So when use the picking up nozzle, the pressure on the silicone resin should be proper.