



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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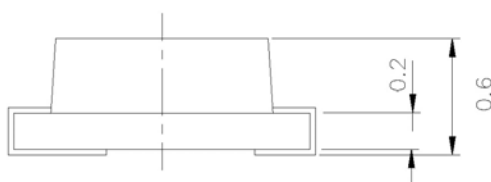
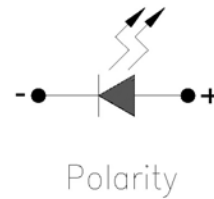
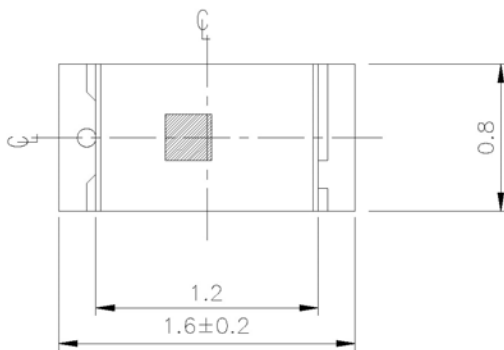
**Features**

- Fit automatic placement equipment.
- Fit Compatible with infrared and vapor phase reflow solder process.
- Pb-free.
- RoHS compliant.

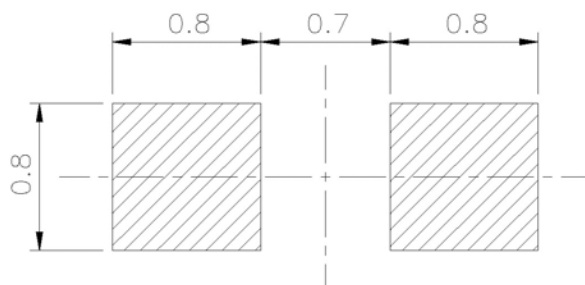
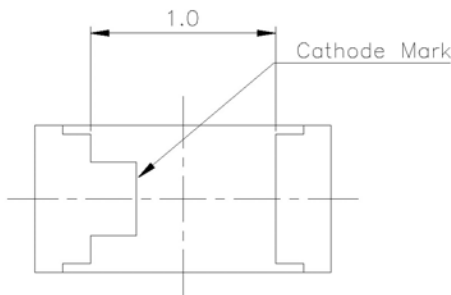
**Descriptions**

- For higher packing density .
- For minature applications .
- Water clear lens .
- Chip material : InGaN .
- Emitting color : Blue.

**Package Outline Dimensions**



For reflow soldering (Propose)



**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm ,Unit = mm

### Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	25	mA
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +90	°C
Soldering Temperature	T <sub>sol</sub>	260 (for 5 second)	°C
Electrostatic Discharge (HBM)	ESD	150	V
Power Dissipation	P <sub>d</sub>	110	mW
Peak Forward Current (Duty 1/10 @1KHz)	I <sub>FP</sub>	100	mA
Soldering Temperature	T <sub>sol</sub>	Reflow Soldering : 260 °C for 5 sec. Hand Soldering : 350 °C for 3 sec.	

### Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I <sub>v</sub>	11.5	---	28.5	mcd	I <sub>F</sub> =5mA
Viewing Angle	2θ 1/2	---	120	---	deg	I <sub>F</sub> =20mA
Peak Wavelength	λ <sub>p</sub>	---	468	---	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	470	---	475	nm	I <sub>F</sub> =5mA
Spectrum Radiation Bandwidth	Δλ	---	35	---	nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	2.5	---	3.0	V	I <sub>F</sub> =2mA
Reverse Current	I <sub>R</sub>	---	---	50	μA	V <sub>R</sub> =5V

#### Notes:

- 1.Tolerance of Luminous Intensity ±10%
- 2.Tolerance of Dominant Wavelength ± 1nm
- 3.Tolerance of Forward Voltage ±0.05V



### Bin Range Of Luminous Intensity

Bin code	Min	Max	Unit	Condition
<b>1-1</b>	11.50	14.50	mcd	IF=5mA
<b>1-2</b>	14.50	18.00		
<b>2-1</b>	18.00	22.50		
<b>2-2</b>	22.50	28.50		

### Bin Range Of Dom. Wavelength

Bin code	Min	Max	Unit	Condition
<b>1</b>	470	475	nm	IF=5mA

### Bin Range Of Forward Voltage

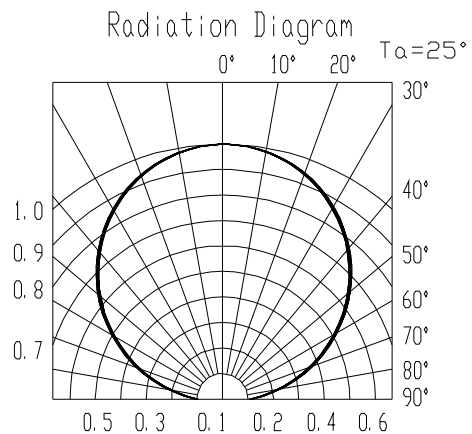
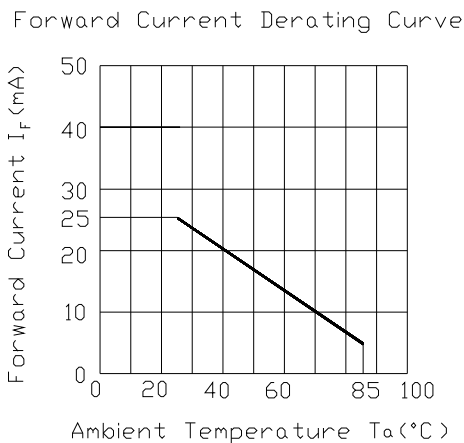
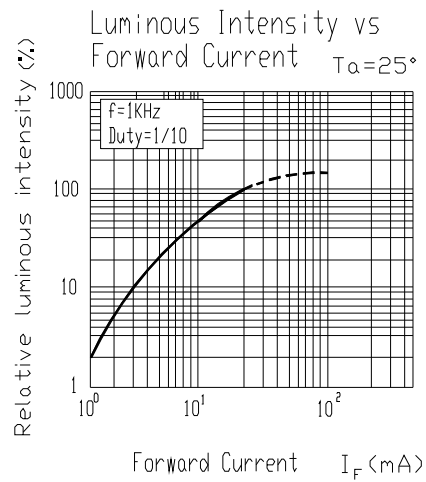
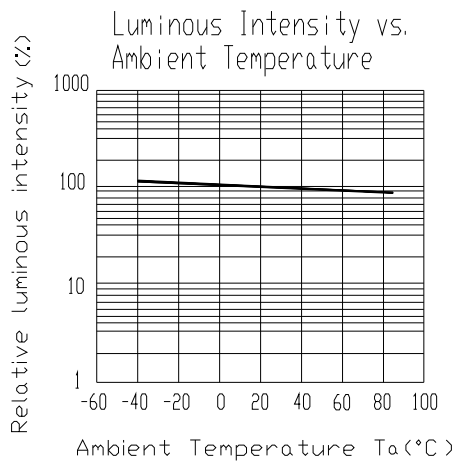
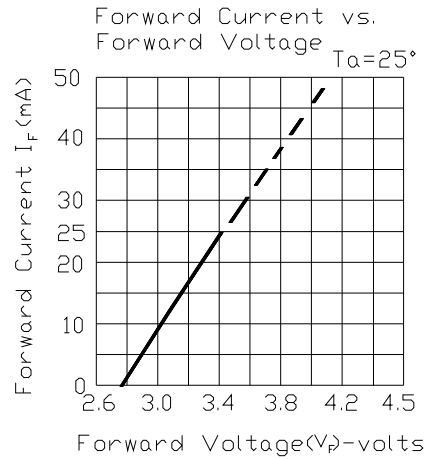
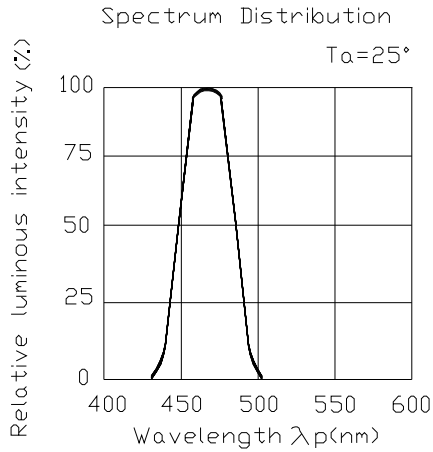
Bin code	Min	Max	Unit	Condition
<b>1-1</b>	2.50	2.55	V	IF=2mA
<b>1-2</b>	2.55	2.60		
<b>2-1</b>	2.60	2.65		
<b>2-2</b>	2.65	2.70		
<b>3-1</b>	2.70	2.75		
<b>3-2</b>	2.75	2.80		
<b>4-1</b>	2.80	2.85		
<b>4-2</b>	2.85	2.90		
<b>5-1</b>	2.90	2.95		
<b>5-2</b>	2.95	3.00		

Specific binning requirements- please contact our home office

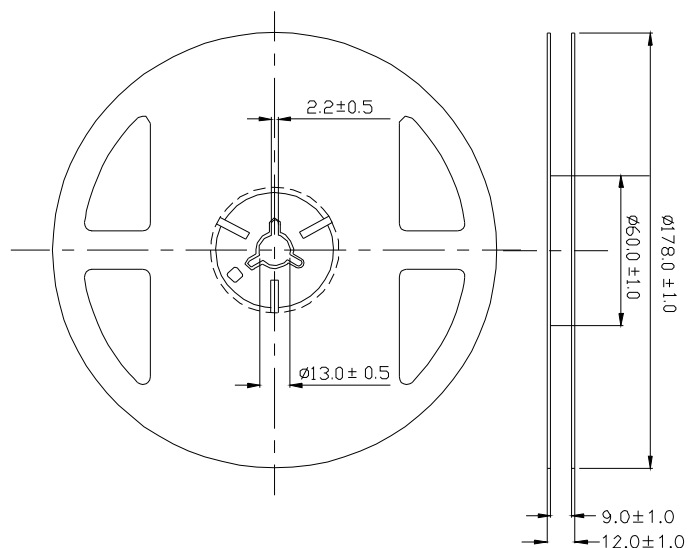
#### Notes:

1. Tolerance of Luminous Intensity  $\pm 10\%$
2. Tolerance of Dominant Wavelength  $\pm 1\text{nm}$
3. Tolerance of Forward Voltage  $\pm 0.05\text{V}$

## Typical Electro-Optical Characteristics Curves

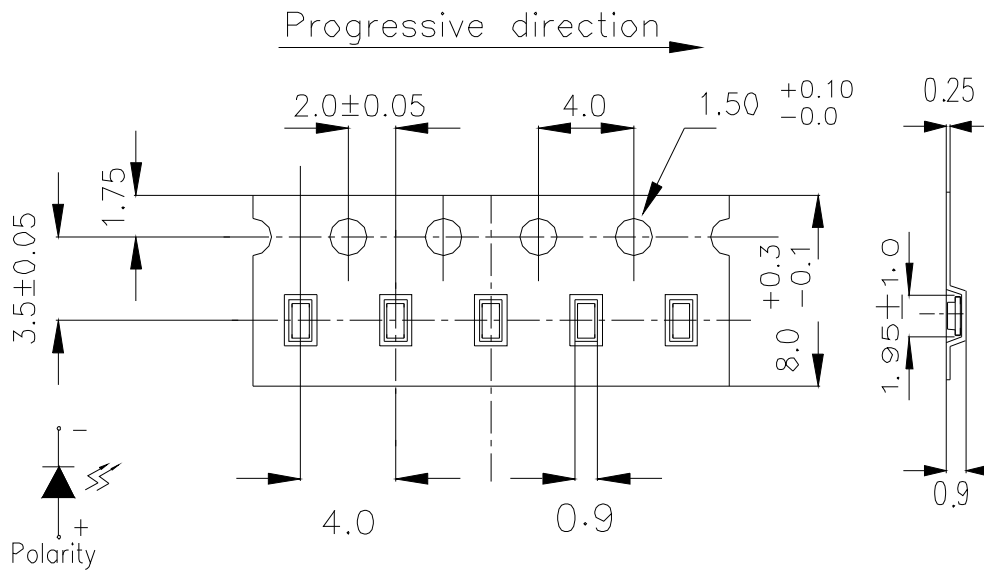


## Reel Dimensions



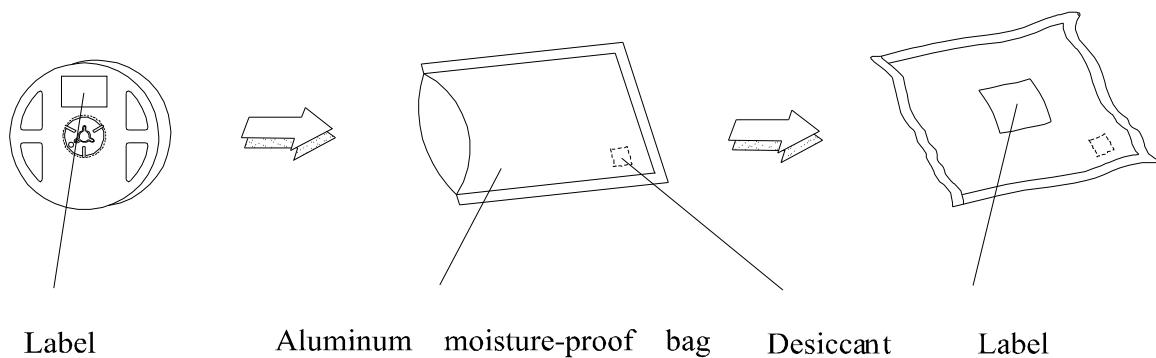
**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm ,Unit = mm

**Carrier Tape Dimensions: Loaded quantity 3000 PCS per reel**



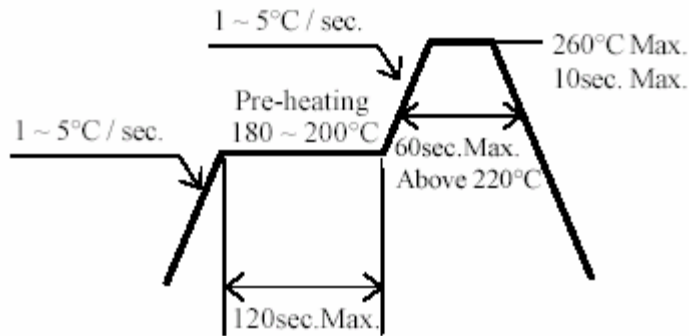
**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm ,Unit = mm

**Moisture Resistant Packaging**



## Soldering Condition

### 1. Pb-free solder temperature profile



2. Reflow soldering should not be done more than two times.
- 3 When soldering, do not put stress on the LEDs during heating.
- 4 After soldering, do not warp the circuit board.

## Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.