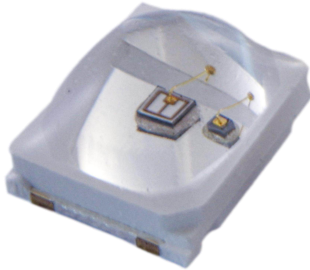


**PLT-UV365XC0.5W-1-2835** **$I_F = 60 \text{ mA}$** **CAUTION**

- Observe Precautions
- For Handling
- Electrostatic
- Discharge
- Sensitive
- Devices

**Applications**

- Nail Lamp
- Curing Light
- Mosquito Lamp
- Money Detector
- The Stage Lights
- The Scorpion Lamp

## Electro-Optical characteristics

(T<sub>a</sub>=25°C, RH=30%)

Items	Symbol	Condition	Bin	Min	Typ	Max	Unit
Forward Current	I <sub>F</sub>				60		mA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 60 mA	V33	3.3	-	3.4	V
			V34	3.4	-	3.5	
			V35	3.5	-	3.6	
			V36	3.6	-	3.7	
Radiant Flux	Φ <sub>e</sub>	I <sub>F</sub> = 60 mA	P070	70	-	80	mW
			P080	80		90	
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> = 60 mA	U36	365	-	375	nm
Viewing Angle	2 θ ½	I <sub>F</sub> = 60 mA			110		deg.
Spectrum Half Width	Δ λ	I <sub>F</sub> = 60 mA			10		nm
Electrostatic Grade	ESD	Contact type (Human Body Model)			8000		V

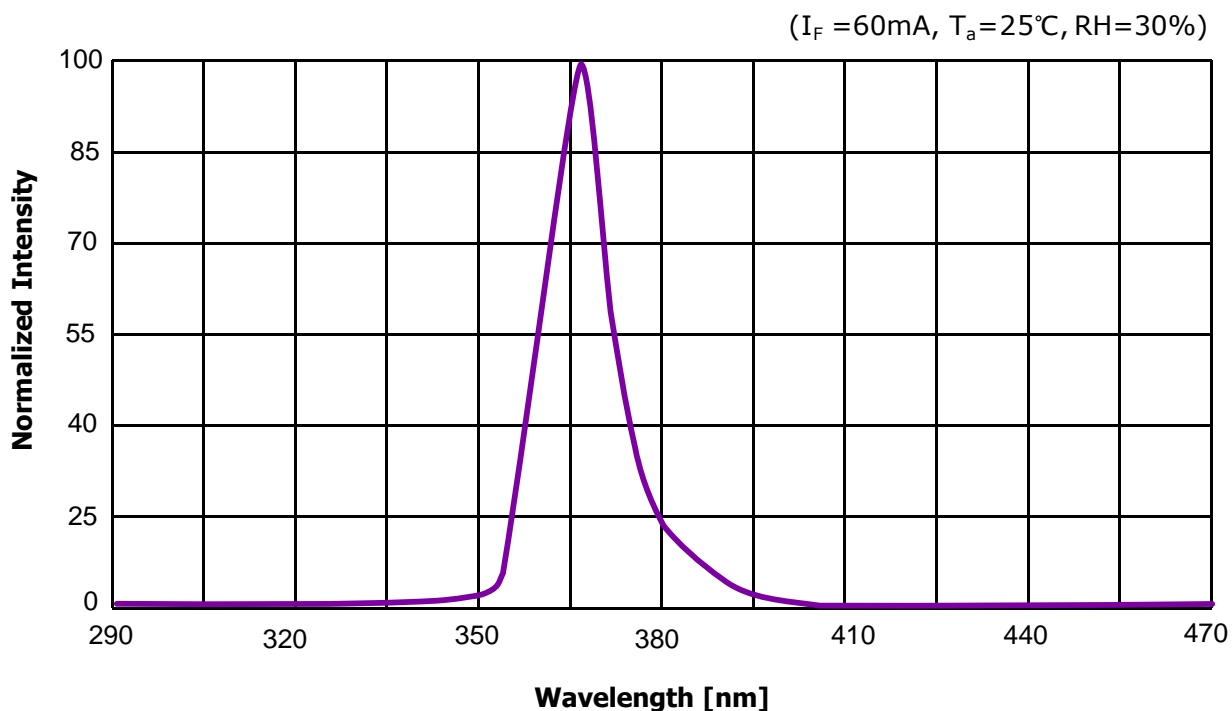
## Absolute Maximum Ratings

Parameter	Symbol	Absolute maximum Rating	Unit
Forward Current	I <sub>F</sub>	150	mA
Power Dissipation	P <sub>D</sub>	550	mW
Junction Temperature	T <sub>j</sub>	115	°C
Operating Temperature	T <sub>opr</sub>	-20~+85	°C
Storage Temperature	T <sub>stg</sub>	-40~+100	°C

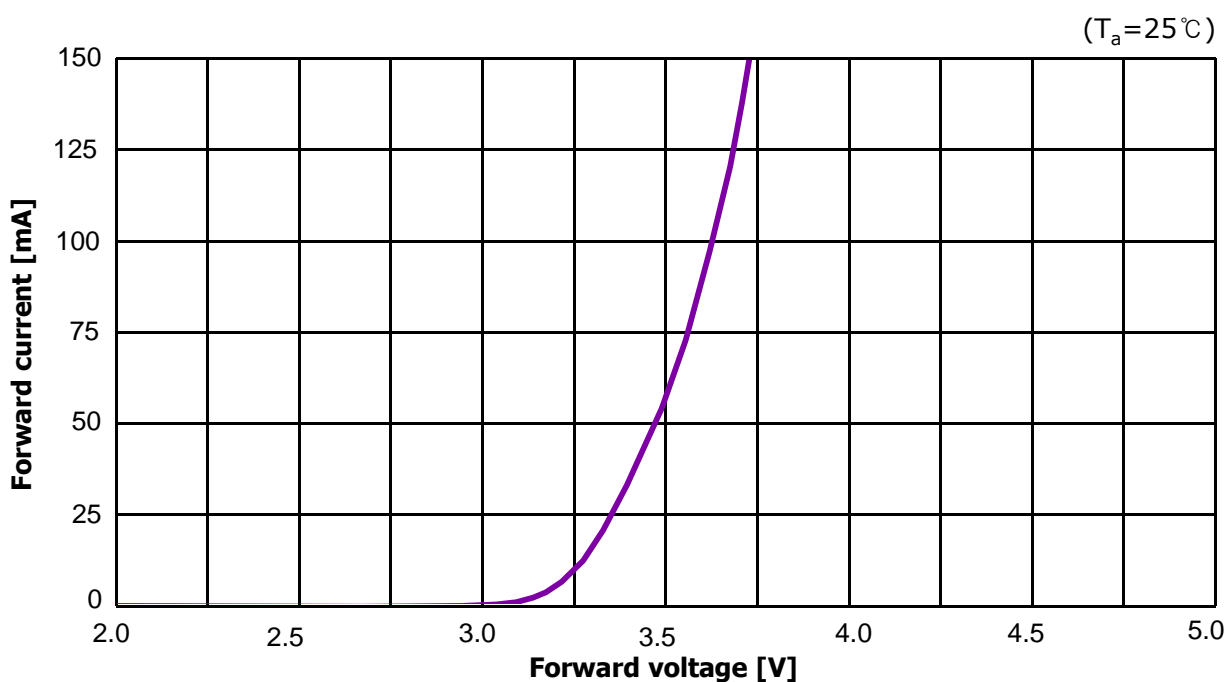
### Notes :

1. Peak Wavelength Measurement tolerance : ±3nm
2. Radiant Flux Measurement tolerance : ± 10%
3. Φ<sub>e</sub> is the Total Radiant Flux as measured with an integrated sphere.
4. Forward Voltage Measurement tolerance : ±3%

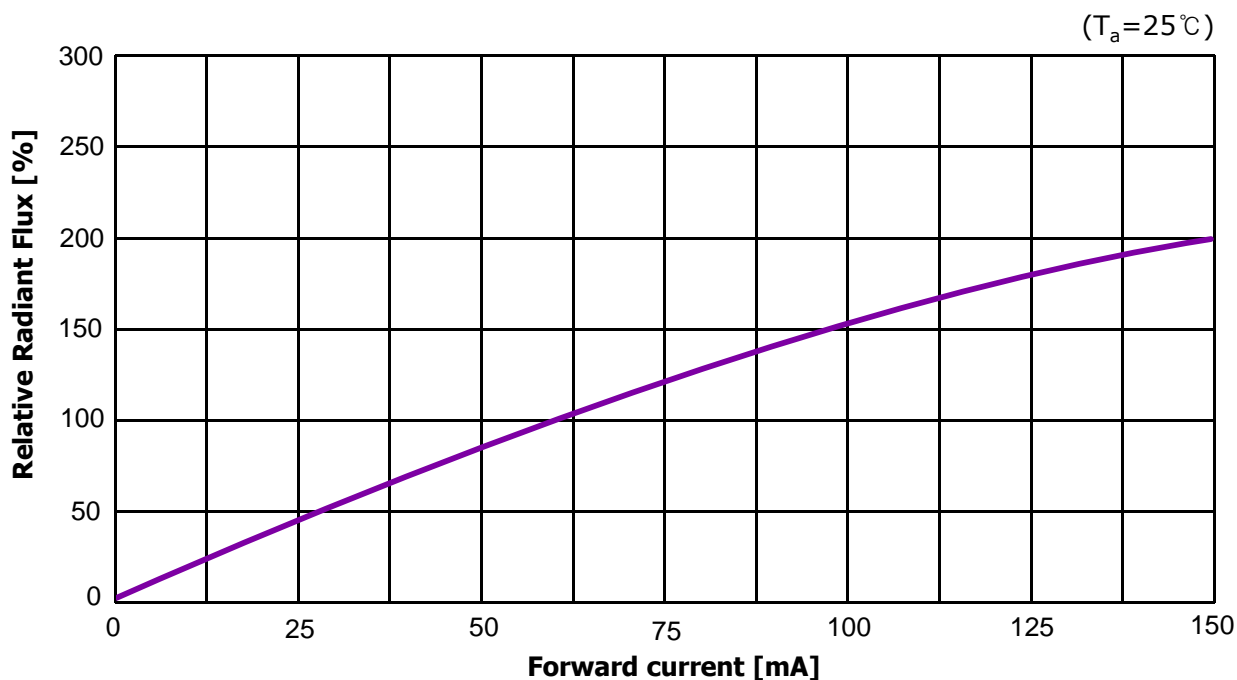
## Spectral Power Distribution



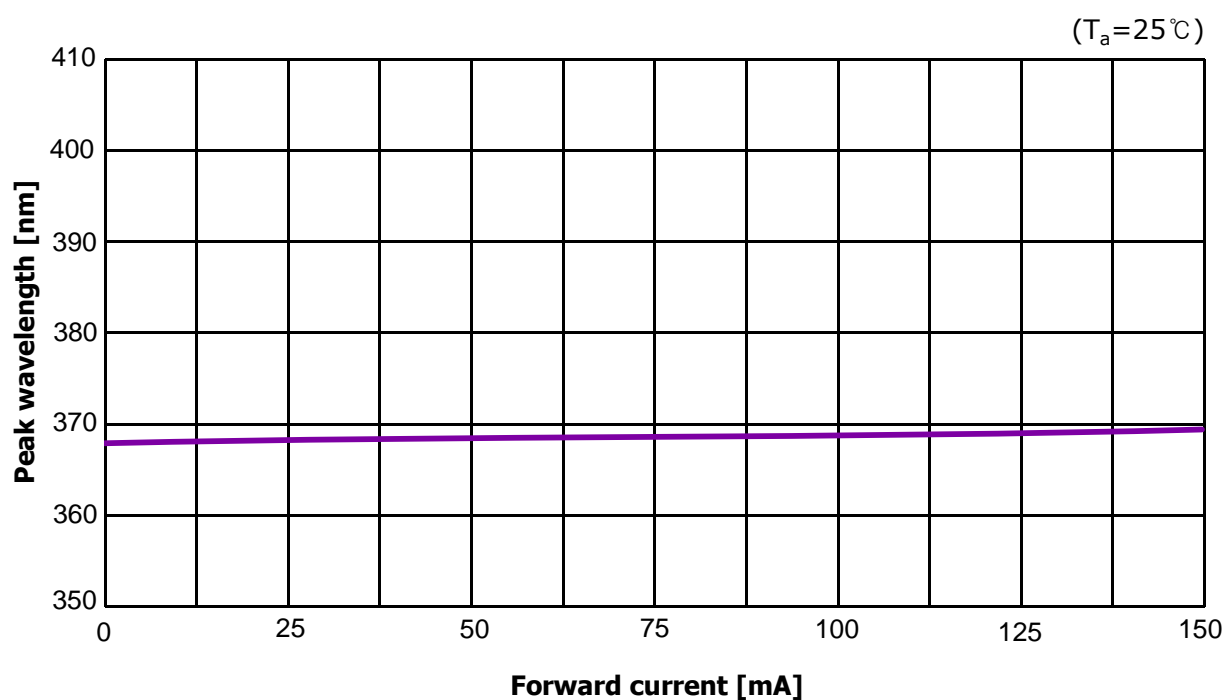
## Forward current vs. Forward Voltage



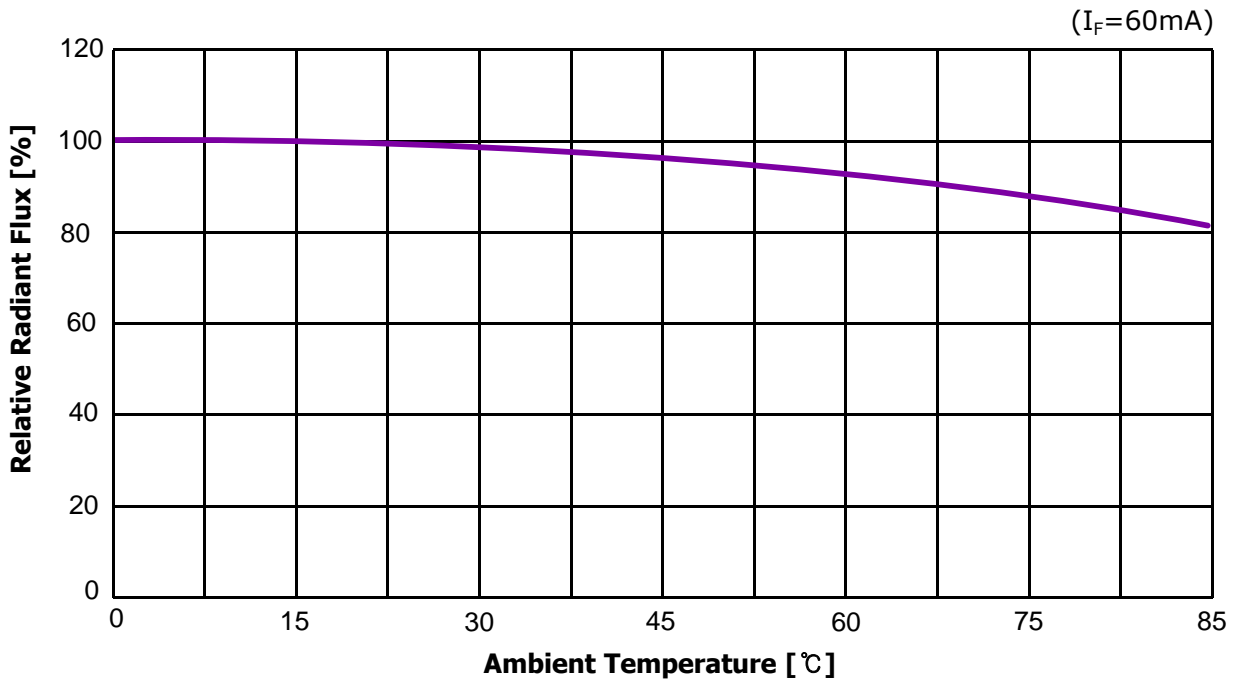
## Relative Radiant Flux vs. Forward Current



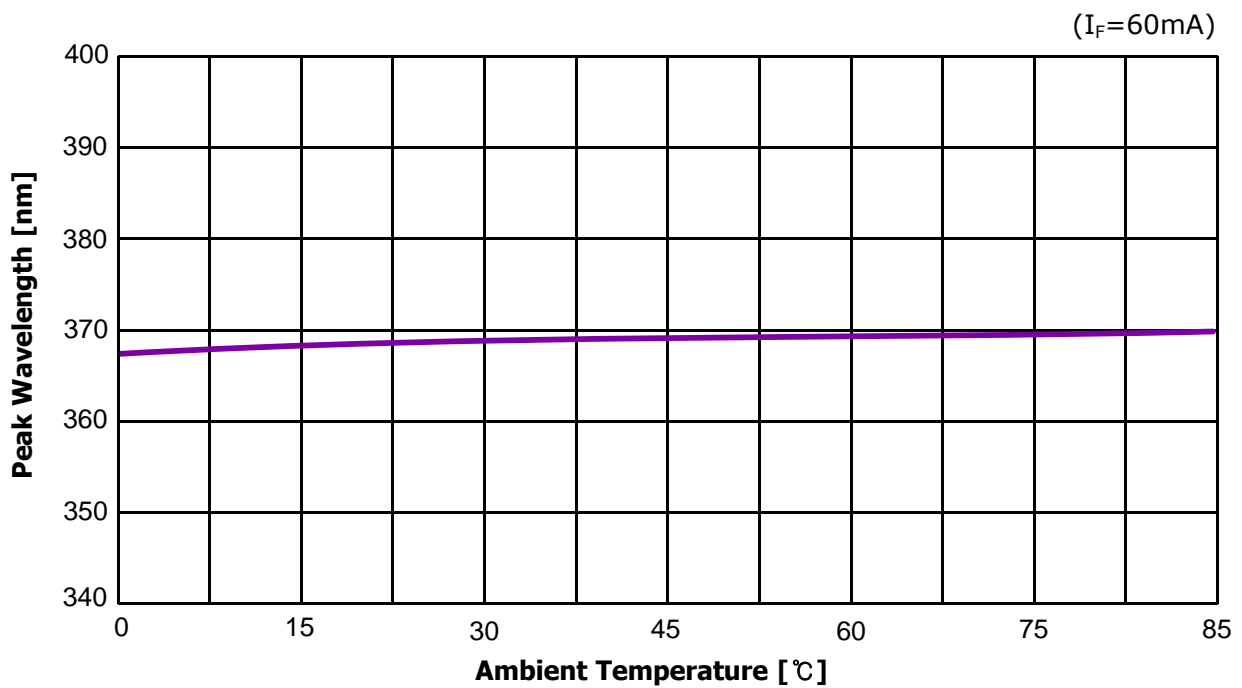
## Peak Wavelength vs. Forward current



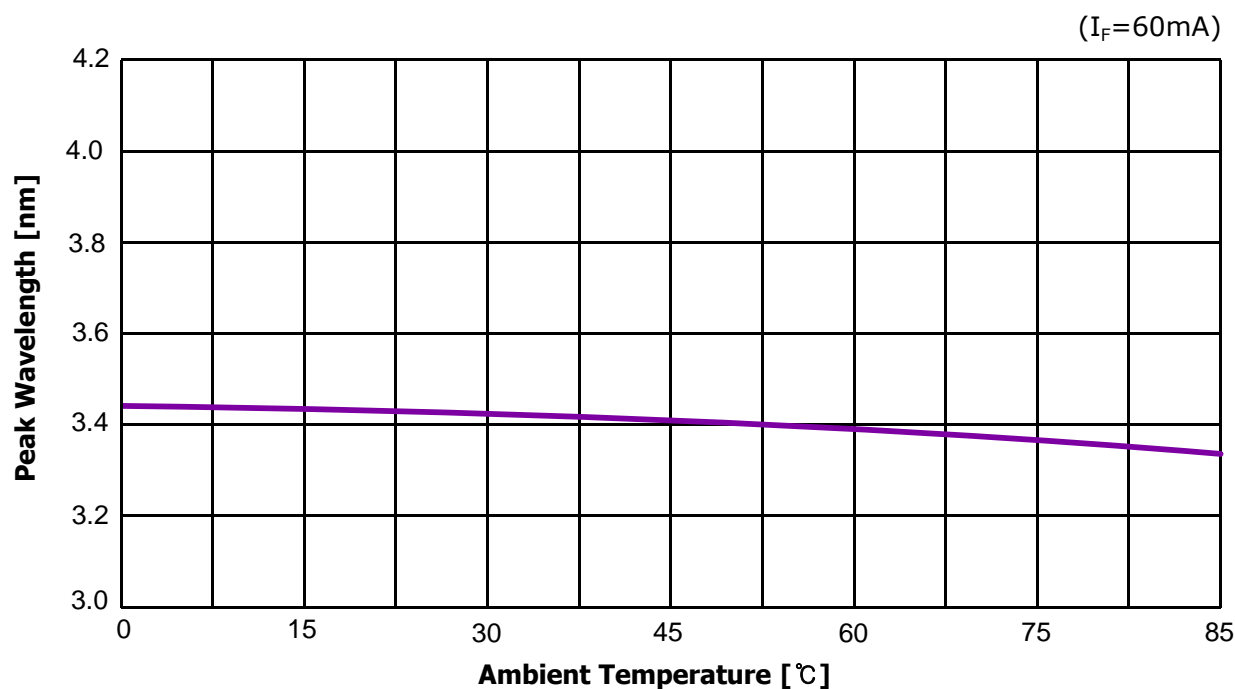
## Relative Radiant Flux vs. Ambient Temperature



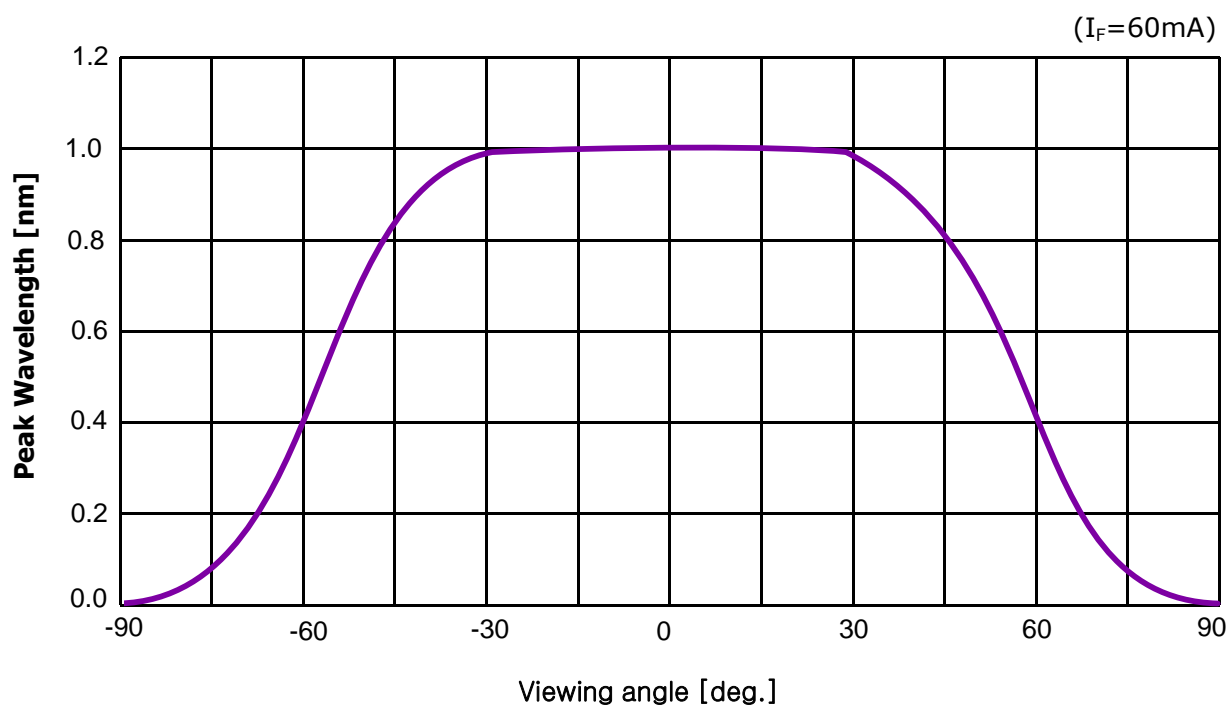
## Peak Wavelength vs. Ambient Temperature



## Forward Voltage vs. Ambient Temperature



## Radiant Pattern



## Precaution for Use

### 1. Storage

To avoid the moisture penetration, we recommend storing LEDs in a dry box (or a desiccator) with a desiccant. The recommended conditions are temperature 5 to 30 degrees Centigrade. Humidity 60% maximum.

### 2. Precaution after opening packing

1. Soldering should be done right after opening the package (within 24Hrs).
2. Keeping of a fraction
  1. - Sealing
  2. - Temperature : less than 30°C, Humidity : less than 30%
- 3.- If the package has been opened than 1 week or the color of desiccant changed Components, should be dried for 10-12 Hrs at  $60 \pm 5^\circ\text{C}$ .

3. Any mechanical force or any excess vibration shall not be accepted to apply during cooling process to normal temperature after soldering.

4. Please avoid rapid cooling after soldering.

5. Components should not be mounted on warped direction of PCB.

6. This device should not be used in any fluid such as water, oil, organic solvent etc. When washing is required, Isopropyl Alcohol should be used.

7. Avoid touching Resin parts especially by sharp tools such as pincette.

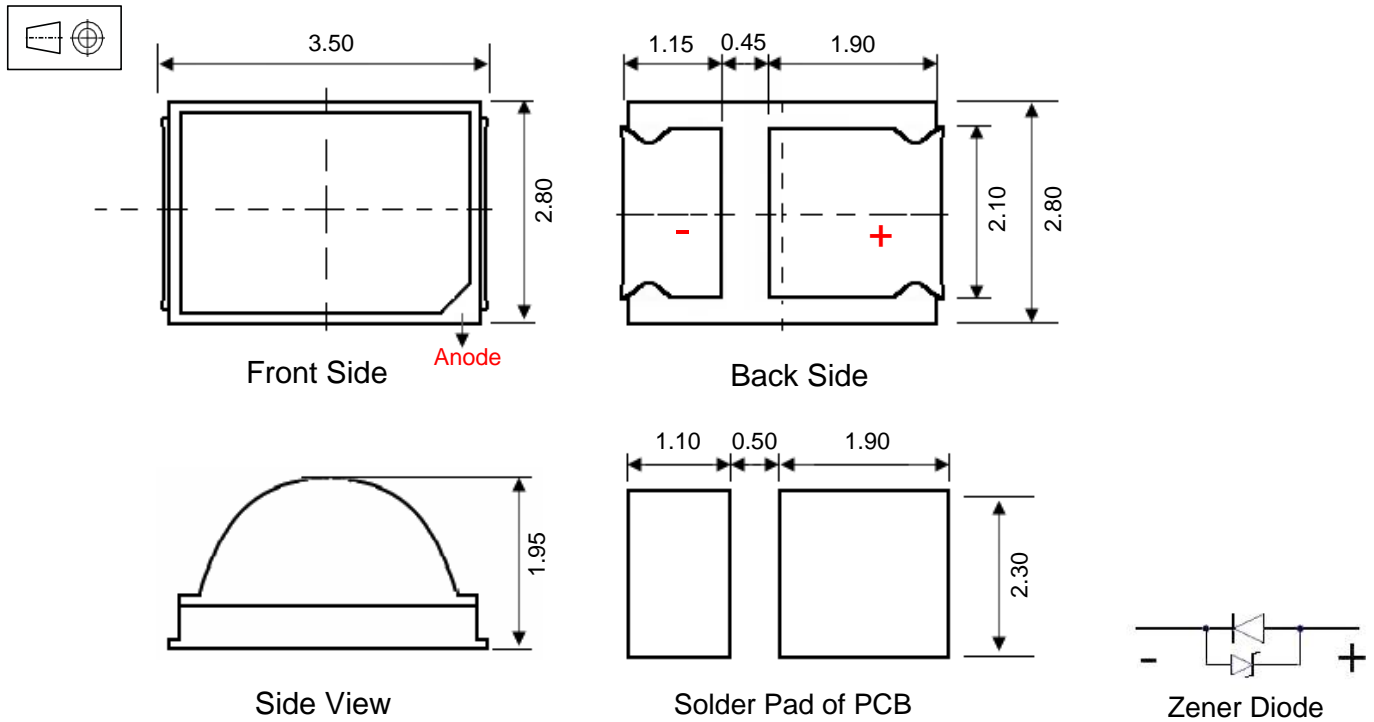
8. Please do not force over 1000g impact or pressure diagonally on the silicone resin. It will cause fatal damage on this product.

9. Please do not cover the silicone resin of the LEDs with other resin

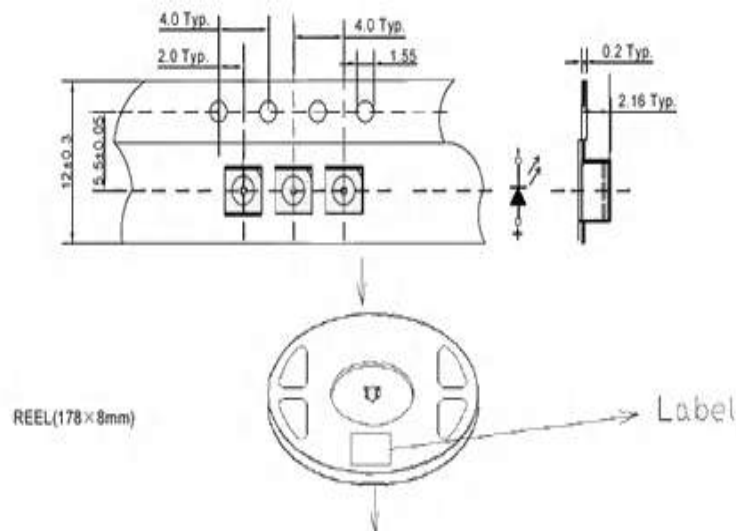
10. Do not use metal suction nozzle, rubber or silica gel suction nozzle is recommended.

11. Do not stack PCBs or assemblies containing the LEDs so that anything rests on the LED resin. Force applied to the LED resin may result in the resin being knocked off. PCBs or assemblies containing the LEDs should be stacked in a way to allow at least 2 cm clearance above the LED resin.

## Dimensions (in mm)



## Tape Specifications (in mm)

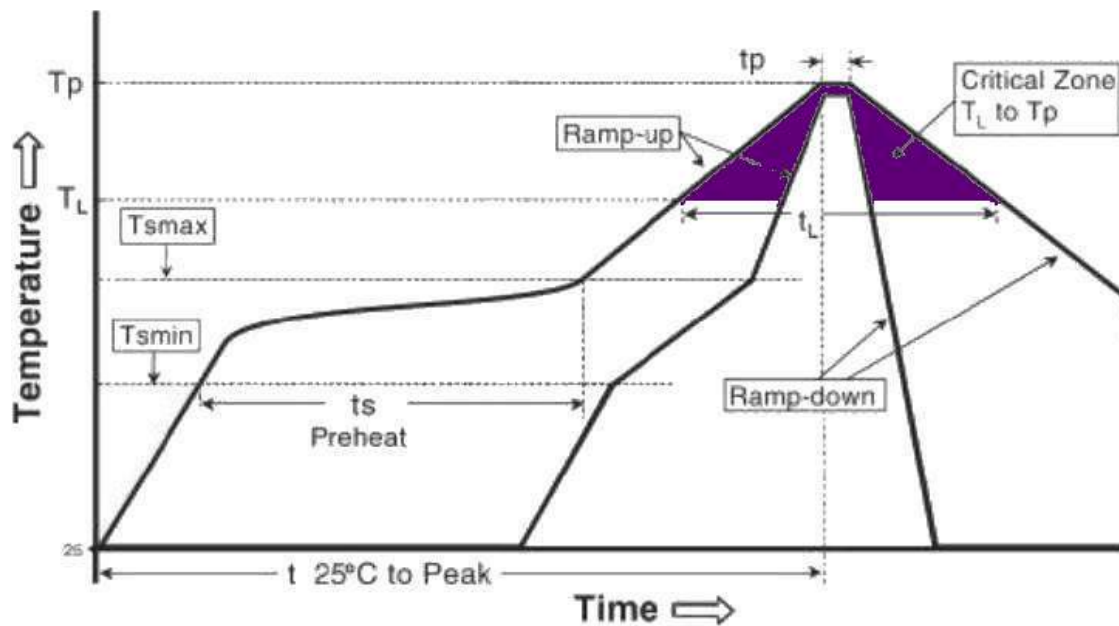


### Notes :

- [1] All dimensions are in millimeters.
- [2] Scale : none
- [3] Undefined tolerance is  $\pm 0.2\text{mm}$



## Reflow Soldering Characteristics



Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Average ramp-up rate ( $T_{smax}$ to $T_p$ )	3°C/second max.	3°C/second max.
Preheat <ul style="list-style-type: none"> <li>- Temperature Min (<math>T_{smin}</math>)</li> <li>- Temperature Max (<math>T_{smax}</math>)</li> <li>- Time (<math>T_{smin}</math> to <math>T_{smax}</math>) (<math>t_s</math>)</li> </ul>	100 °C 150 °C 60-120 seconds	150 °C 200 °C 60-180 seconds
Time maintained above: <ul style="list-style-type: none"> <li>- Temperature (<math>T_L</math>)</li> <li>- Time (<math>t_L</math>)</li> </ul>	183 °C 60-150 seconds	217 °C 60-150 seconds
Peak Temperature ( $T_p$ )	215 °C	260 °C
Time within 5°C of actual Peak Temperature ( $t_p$ )	10-30 seconds	20-40 seconds
Ramp-down Rate	6 °C/second max.	6 °C/second max.
Time 25°C to Peak Temperature	6 minutes max.	8 minutes max.

### \* Caution

1. Reflow soldering should not be done more than one time.
2. Repairs should not be done after the LEDs have been soldered. When repair is unavoidable, suitable tools must be used.
3. Die slug is to be soldered.
4. When soldering, do not put stress on the LEDs during heating.
5. After soldering, do not warp the circuit board.
6. Recommend to use a convection type reflow machine with 6 ~ 8 zones.