

PRODUCT SPECIFICATION

Model No.: FYLP-3535EUVAUVCC

Features:
<ul style="list-style-type: none"> ■ SMD Type ■ Size (mm):3.50*3.50*1.59 ■ Emitting Color:Deep ultraviolet ■ SMT package ■ Suitable for all SMT assembly and soldering method ■ Pb-free Reflow soldering application ■ RoHS Compliant ■ MSL:6

Applications:
<ul style="list-style-type: none"> ■ Ultraviolet disinfection. ■ Phototherapy. ■ Bio-Analysis/Detection. ■ Currency Detectors ■ Insect Trap lamps ■ Mine Identification ■ Plant Growth Lamps



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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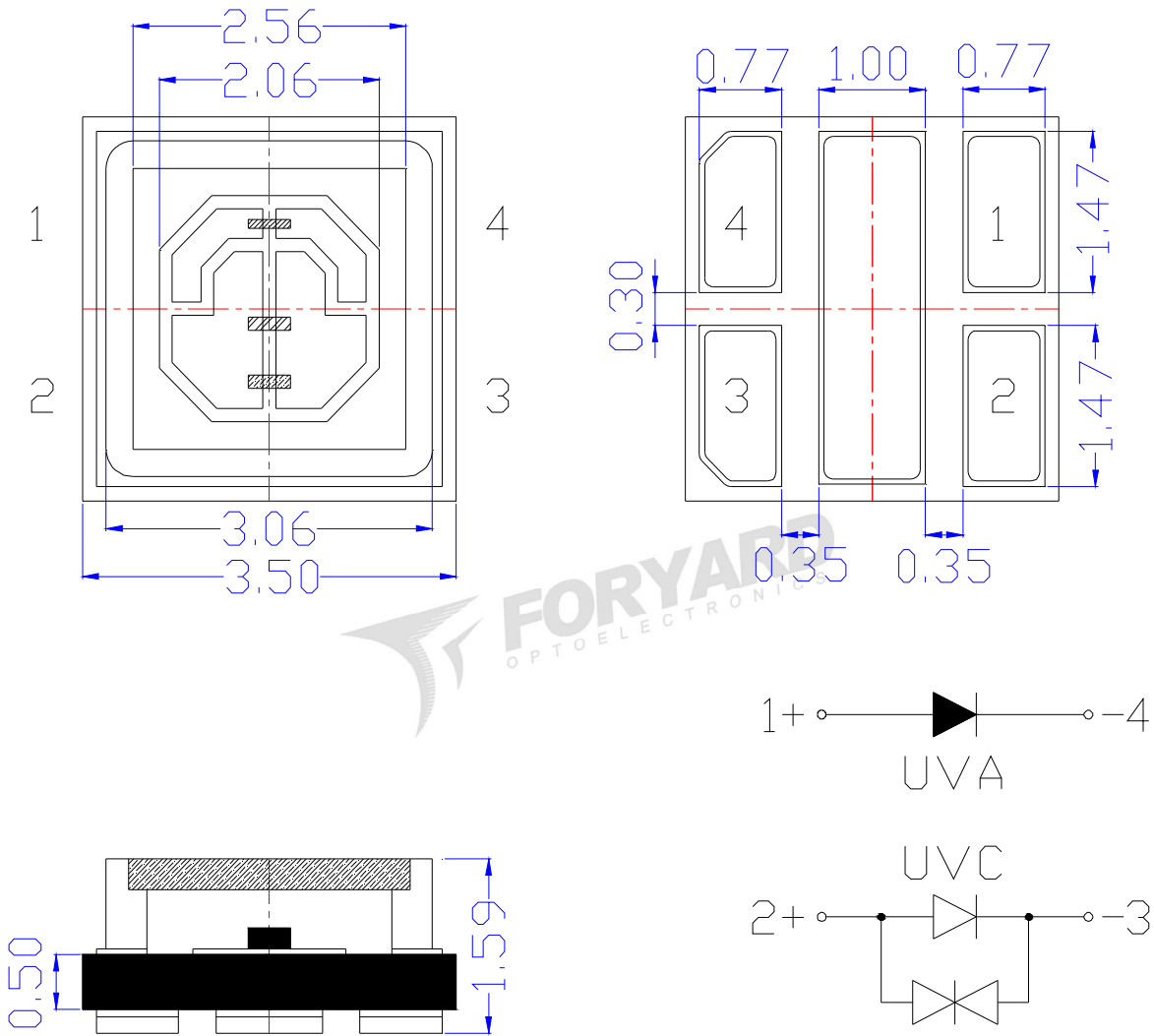
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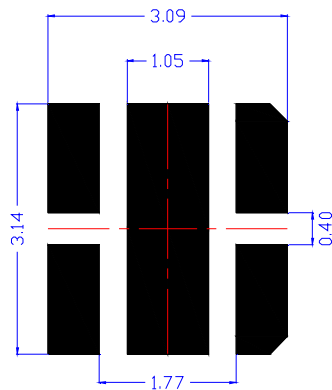
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■ Mechanical Dimensions



■ Recommend Soldering pad design(unit=mm)



Notes:

1. Dimension in millimeter, tolerance is ± 0.10 .
2. Angle: $\pm 5^\circ$
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The drawing is different from the actual one, please refer to the sample.

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Absolute maximum ratings

Parameter	Symbol	MAX.		Unit
		UVA	UVC	
Power Dissipation	PD	260	260	mW
Peak Forward Current*	IFP	150	80	mA
Continuous Forward Current	IF	80	40	mA
Reverse Voltage	VR	5	5	V
Operating Temperature Range	Topr	-30~ +85		°C
Storage Temperature Range	Tstg	-40~ +80		°C
Soldering Temperature	Tsol	Reflow soldering : 260°C , 10s		
		Hand soldering : 300°C , 3s		

*1/10 Duty Cycle, 0.1ms Pulse Width

Typical Electrical & Optical Characteristics(Ta=25°C)

Parameter	Symbol		Test Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I _v	UVA	IF=20mA	8.00		12.00	mW
			IF=30mA	12.00		20.00	
			IF=40mA	20.00		50.00	
	UVC	IF=20mA	1.00	---	2.00		
		IF=30mA	2.00	---	3.00		
		IF=40mA	3.00	---	4.00		
Viewing Angle	2θ _{1/2}	UVA	IF=20mA	---	120	---	Deg
		UVC					
Peak Emission Wavelength	λ _p	UVA	IF=20mA	395	---	405	nm
		UVC		270	---	285	
Forward Voltage	V _F	UVA	IF=20mA	3.00		3.40	V
		UVC		5.00		7.00	
Reverse Current	I _R		VR=5V	---	---	10.00	μA

Material

Item	Reflector	Encapsulate	Wire	Chip
Material	PPA	Silicone	Gold	InGaN

Note:

- 1.Luminous Intensity is based on the Foryard standards.
- 2.Pay attention about static for InGaN

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Electrical-Optical Characteristics-

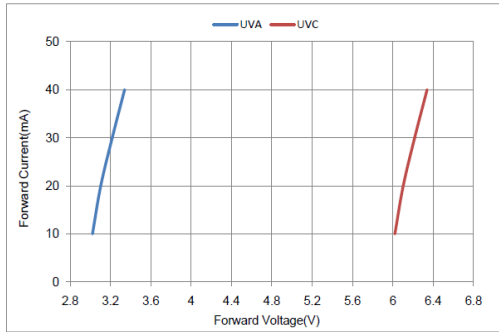


Fig.1- Forward Voltage Vs. Forward Current 伏安特性曲线

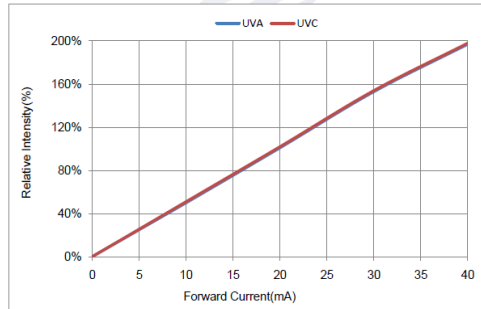


Fig.2- Forward Current Vs. Relative Power 正向电流与相对光功率特性曲线

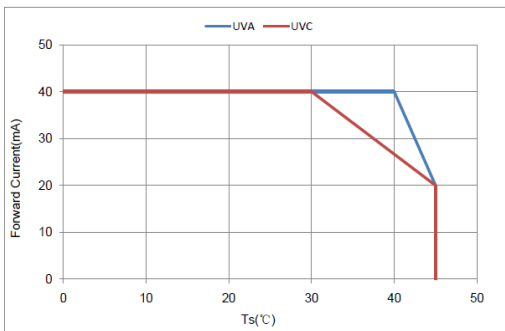


Fig.3-Ts Temperature VS. Forward Current 焊盘温度与正向电流特性曲线

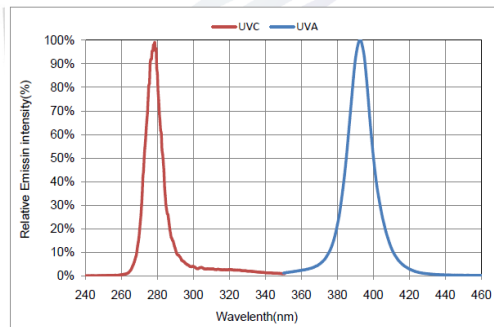


Fig.4-Spectrum Distribution 光谱分布特性曲线

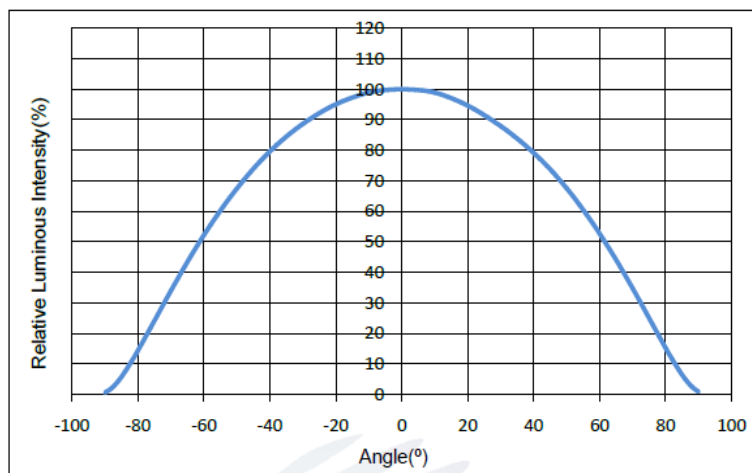


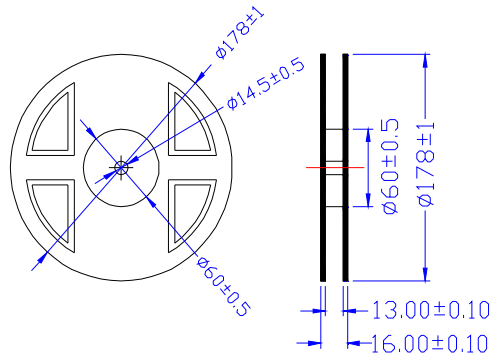
Fig.5- Radiation Diagram 辐射特性曲线

NOTE:25°C free air temperature unless otherwise specified

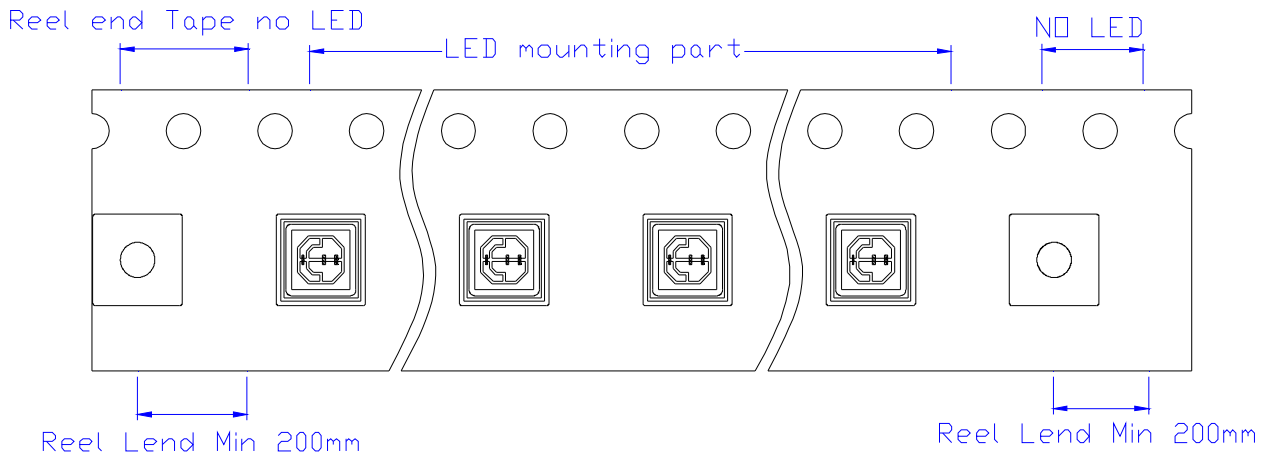
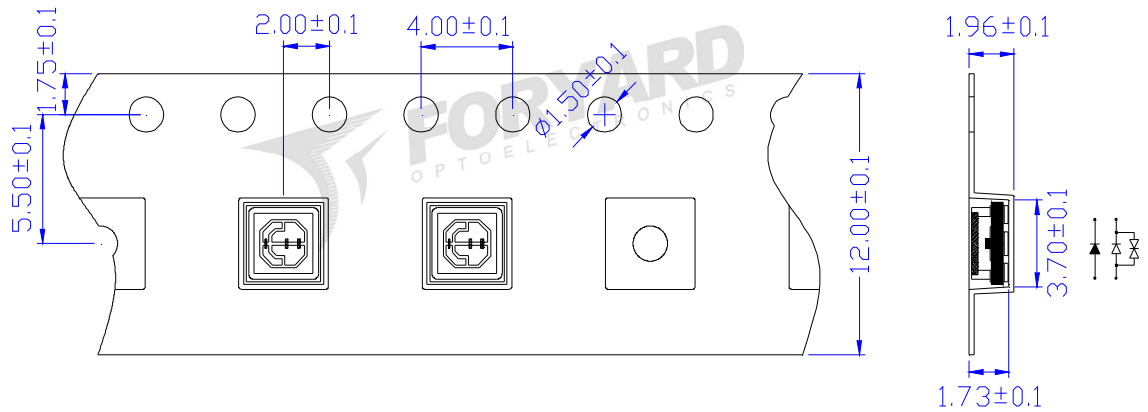
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■ Package-

1. Reel Dimension



2. Tape Dimension

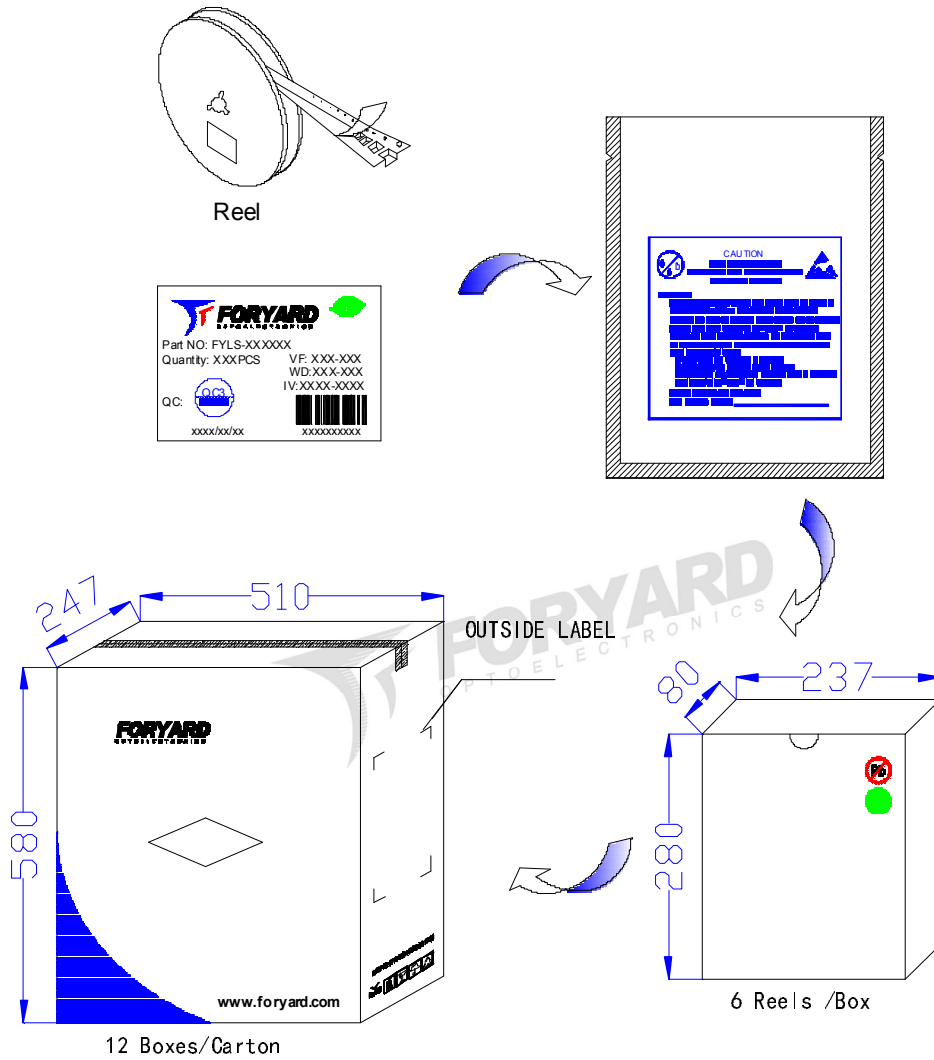
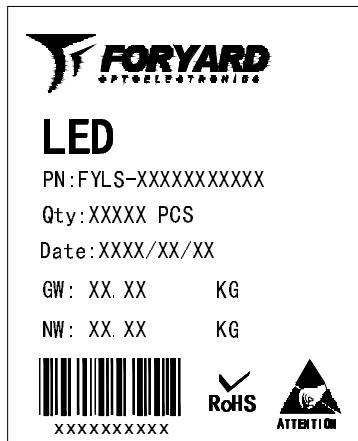


Notice:

1. Tolerance unless mentioned is $\pm 0.2\text{mm}$

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3. Packing Diagram

FORYARD OPTOELECTRONICS

LED

PN: FYLS-XXXXXXXXXX

Qty: XXXXX PCS

Date: XXXX/XX/XX

GW: XX.XX KG

NW: XX.XX KG

Barcode: xxxxxxxxxx

RoHS (with checkmark) and ATTENTION (with triangle symbol) logos.

OUTSIDE LABEL

Notice:

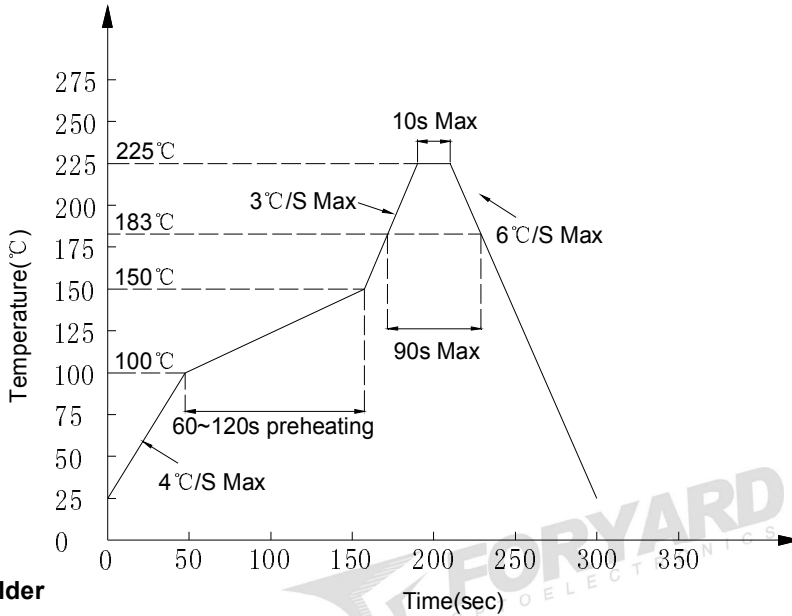
- 1.Quantity:1000 PCS/Reel
- 2.The specifications are subject to change without notice. Please contact us for updated information.

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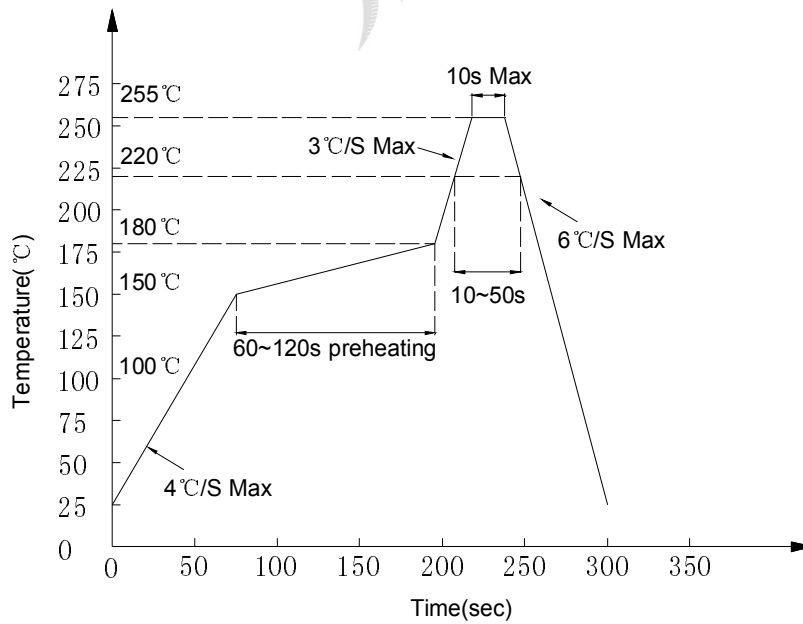
■ Soldering Characteristics-

● Reflow Soldering

● Lead Solder



● Lead-free Solder



Notes:

1. Although the recommended soldering conditions are specified in above table, reflow or hand soldering at the lowest possible temperature is desired for the LEDs.
2. A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.
3. All temperatures refer to solder Pad.

● Hand Soldering

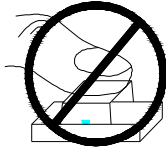
Soldering temperature	300°C Max. (25W Max.)	One time only
Soldering time	5 ±1sec	

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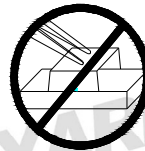
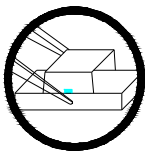
■ **Handling of Silicone Resin LEDs-**

● **Handling Indications**

When handling the product, do not touch it directly with bare hands as it may contaminate the surface and affect on optical characteristics. In the worst cases, excessive force to the product might result in catastrophic failure due to package damage and/or wire breakage.

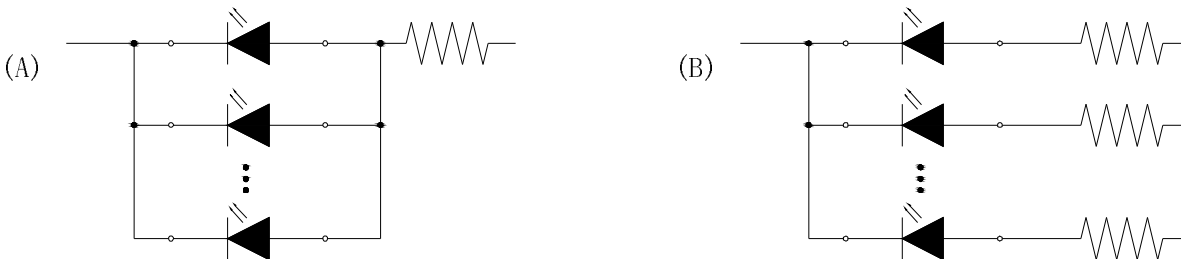


When handling the product with tweezers, LEDs should only be handled from the side and make sure that excessive force is not applied to the resin portion of the product. Failure to comply can cause the resin portion of the product to be cut, chipped, delaminated and/or deformed, and wire to be broken, and thus resulting in catastrophic failure.



■ **Recommended circuit-**

● In designing a circuit, the current through each LED must not exceed the absolute maximum rating specified for each LED. It is recommended to use Circuit B which regulates the current flowing through each LED. In the meanwhile, when driving LED with a constant voltage in Circuit A, the current through the LEDs may vary due to the variation in forward voltage (VF) of the LEDs. In the worst case, some LED may be subjected to stresses in excess of the absolute maximum rating.



● This product should be operated in forward bias. A driving circuit must be designed so that the product is not subjected to either forward or reverse voltage while it is off. In particular, if a reverse voltage is continuously applied to the product; such operation can cause migration resulting in LED damage.

■ **Storage-**

● **Storage Conditions**

1. Unopened moisture barrier bag (MBB) shall be stored at temperature below 5°C~30°C, with humidity below 60%RH.
2. Before the MBB be opened, check if have the air leakage, if have, then need to bake at 65°C~70°C for 24hours.
3. After the MBB has been opened, the LEDs which need for reflow soldering or other soldering methods, must be used according to below:
 - a: Must finish the soldering in 12hours
 - b: Stored with the humidity below 30%RH
 - c: If not finish the soldering in 12hours, need to bake the LED again at 65°C~70°C for 24hours