




PRODUCT SPECIFICATION

Model No.: FYLS-2835XXXC-0.5W

Features:	
<ul style="list-style-type: none"> ■ SMD Type ■ Size (mm):3.5*2.8*0.8 ■ Lens Type: Water clear/Red Phosphor/Yellow Phosphor. ■ Viewing Angle(2θ½):120° ■ SMT package ■ Suitable for all SMT assembly and soldering method ■ Pb-free Reflow soldering application ■ RoHS Compliant 	

Applications:
<ul style="list-style-type: none"> ■ Light Strips ■ LCD Backlight ■ Decorative lighting ■ Indicators ■ Interior automotive ■ Illuminations ■ Mobile Phones



CUSTOMER APPROVED SIGNATURES	APPROVED BY	SALES BY	PREPARED BY
			

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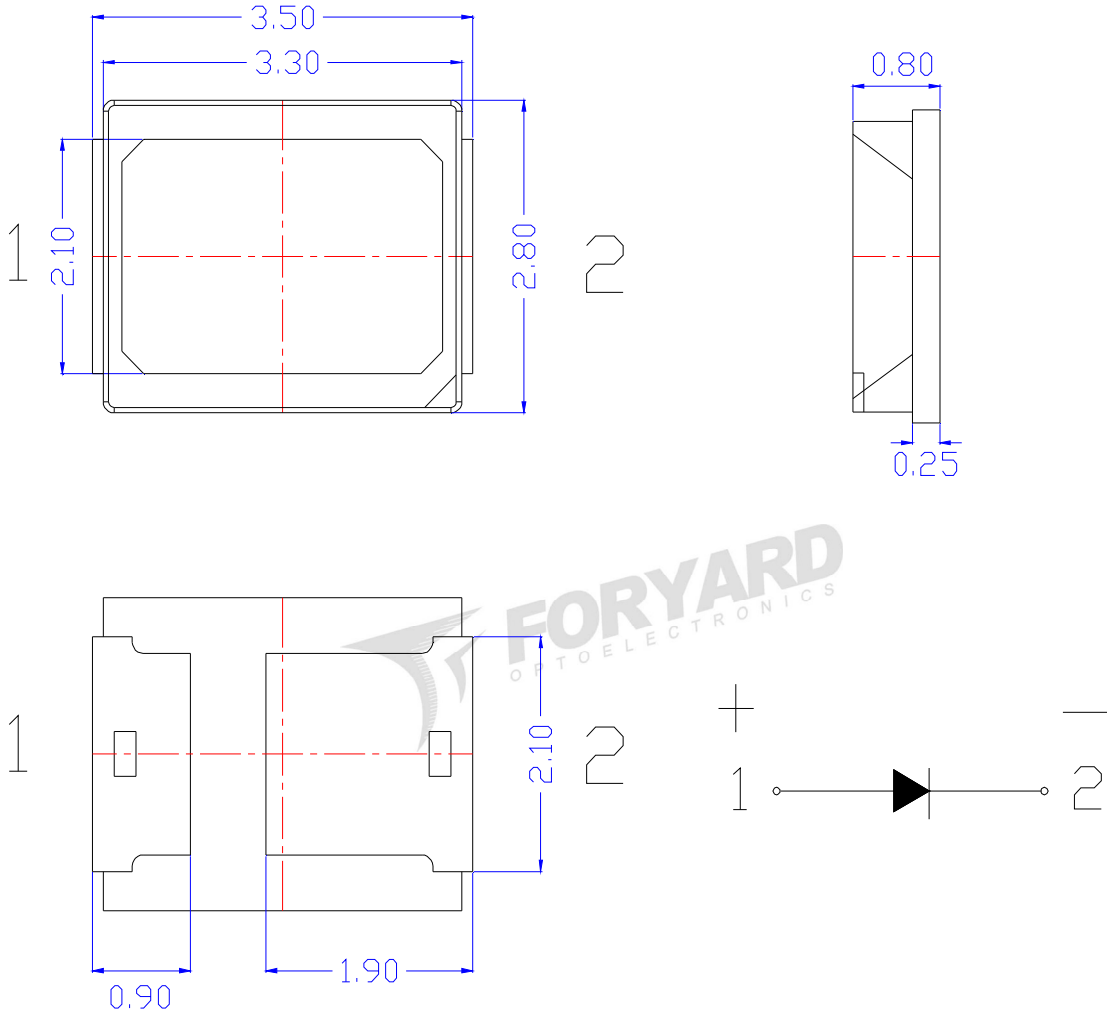
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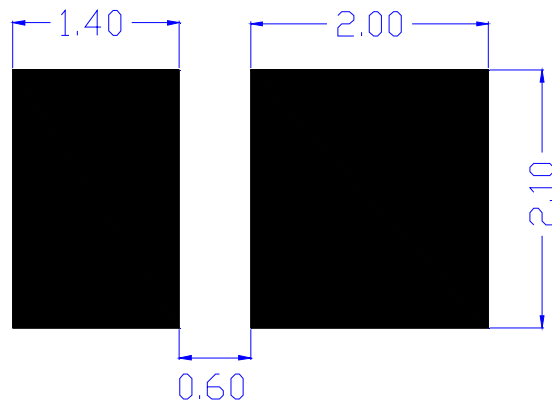
E-mail:Sales@foryard.com (General)

Model No.: FYLS-2835XXXC-0.5W

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.

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■ **Absolute maximum ratings**

Parameter	Continuous Forward Current	Peak Forward Current*	Power Dissipation
Symbol	IFP	IF	PD
AlGaInP	150	150	500
InGaN	150	150	500
Unit	mA	mA	mW

*Pulse width \leq 1msec duty \leq 1/10

Items	Symbol	Absolute maximum Rating	Unit
Operation Temperature	Topr	-30°C ~ +80°C	°C
Storage Temperature	Tstg	-40°C ~ +85°C	°C
Reverse Voltage	VR	5	V
Soldering Temperature	Tsol	Reflow Soldering: 255°C/10sec	
		Hand Soldering : 350°C/3sec	

■ **Electrical-Optical Characteristics**

● **Color Code & Chip Characteristics:**(Test Condition:IF=150mA)

(Ta=25°C)

Model No.:	Emitting Color	Dice Material	Peak Wave	Peak Wave			Spectral Line	Forward			Luminous Flux (Iv)		
			Length(AP)	Length(λ d) nm			halfwidth	Voltage(VF) Unit:V			Unit:Lm		
			nm	Min.	Typ.	Max.	($\Delta\lambda$ 1/2) nm	Min.	Typ.	Max.	Min.	Typ.	Max.
FYLS-2835ECURC-0.5W	Ultra Red	AlGaInP	630	620	---	625	20	2.00	2.20	2.40	15	---	20
FYLS-2835URR-0.5W	Ultra Red	InGaN	630	615	---	625	30	3.00	3.20	3.40	10	---	20
FYLS-2835LCUY2C-0.5W	Ultra Yellow	AlGaInP	590	590	---	595	20	2.00	2.20	2.40	10	---	20
FYLS-2835UYY-0.5W	Ultra Yellow	InGaN	590	585	---	595	30	3.00	3.20	3.40	45	---	55
FYLS-2835PGC-0.5W	Purea Green	InGaN	520	520	---	525	30	3.00	3.20	3.40	30	---	40
FYLS-2835UBC-0.5W	Ultra Blue	InGaN	470	460	---	465	30	3.00	3.20	3.40	8	---	10
FYLS-2835UWC65-0.5W	Ultra White	InGaN	---	6000K	---	7500K	30	3.00	3.20	3.40	55	---	70

Note:

1.Luminous Intensity is based on the Foryard standards.

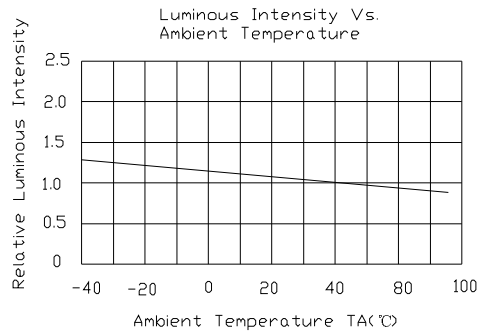
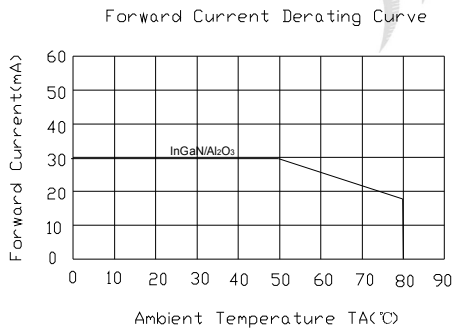
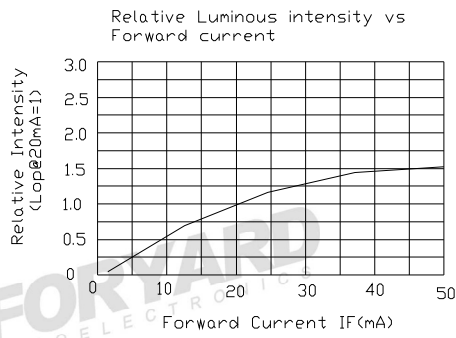
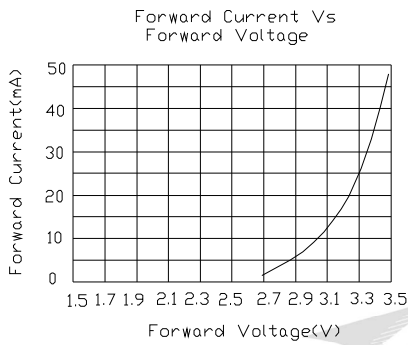
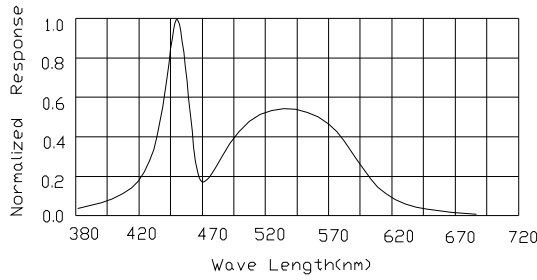
2.Pay attention about static for InGaN

■ **Material**

Item	Reflector	Wire	Encapsulate
Material	/	Gold	Epoxy

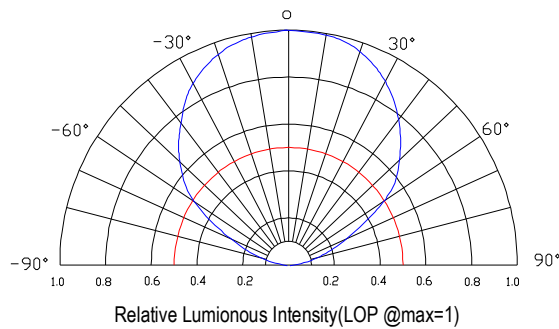
Model No.: FYLS-2835XXXC-0.5W

Electrical-Optical Characteristics-



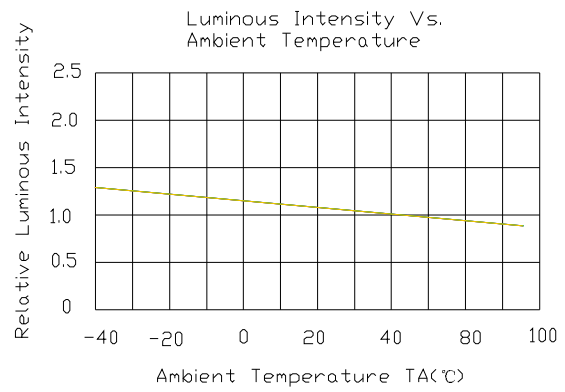
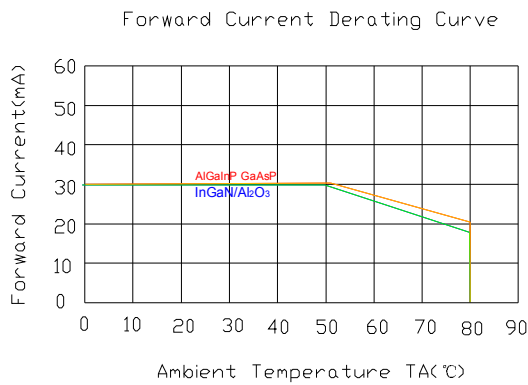
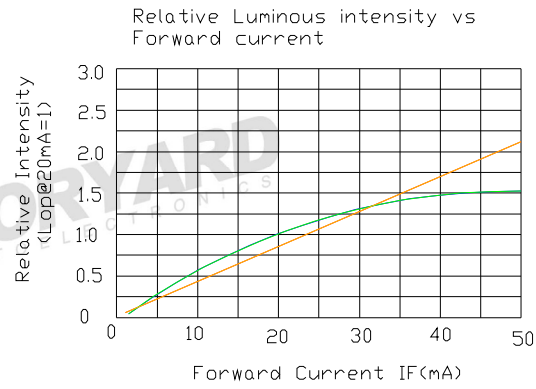
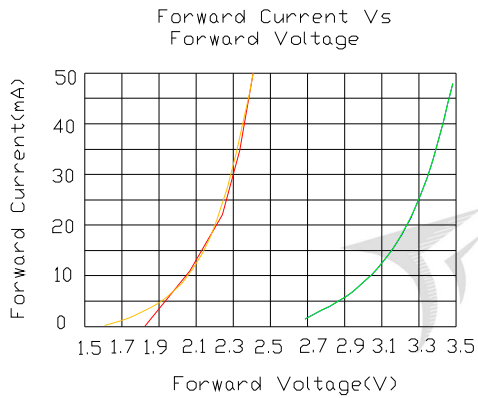
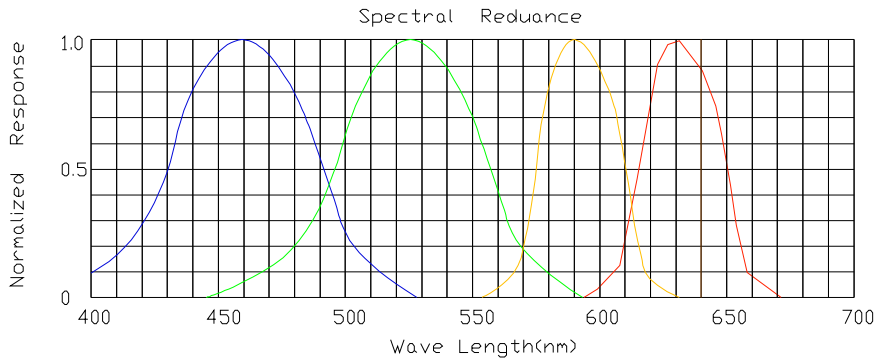
NOTE: 25°C free air temperature unless otherwise specified

Radiation pattern-



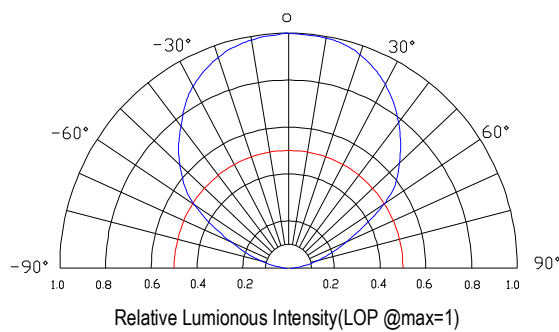
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Electrical-Optical Characteristics-



NOTE:25°C free air temperature unless otherwise specified

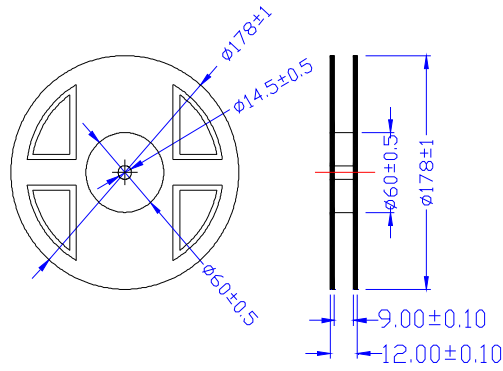
Radiation pattern-



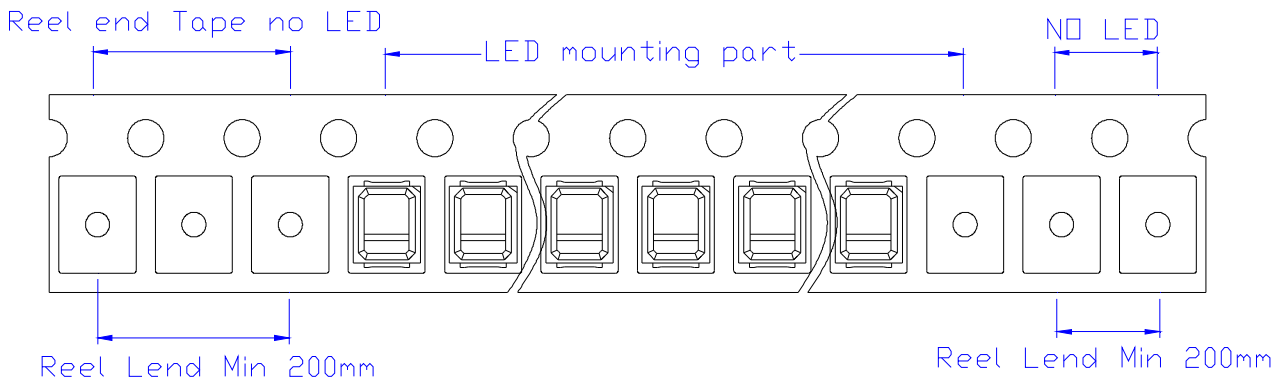
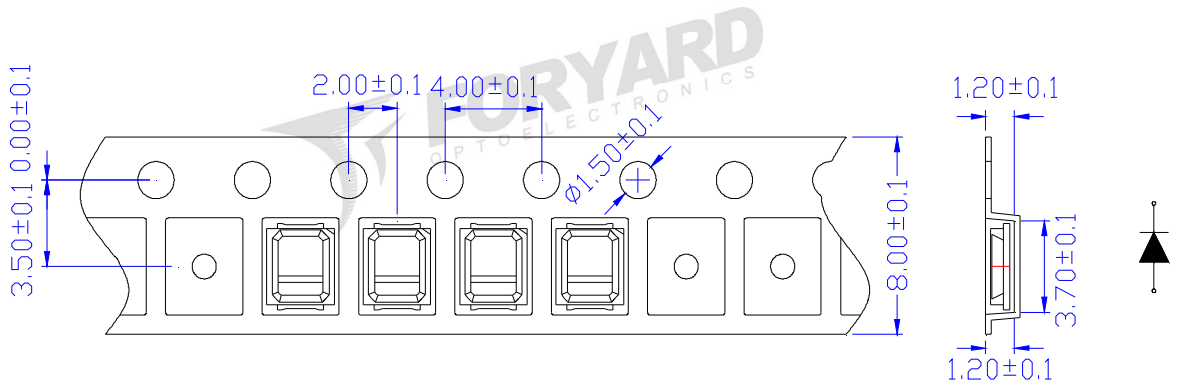
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■ Package-

1. Reel Dimension



2. Tape Dimension

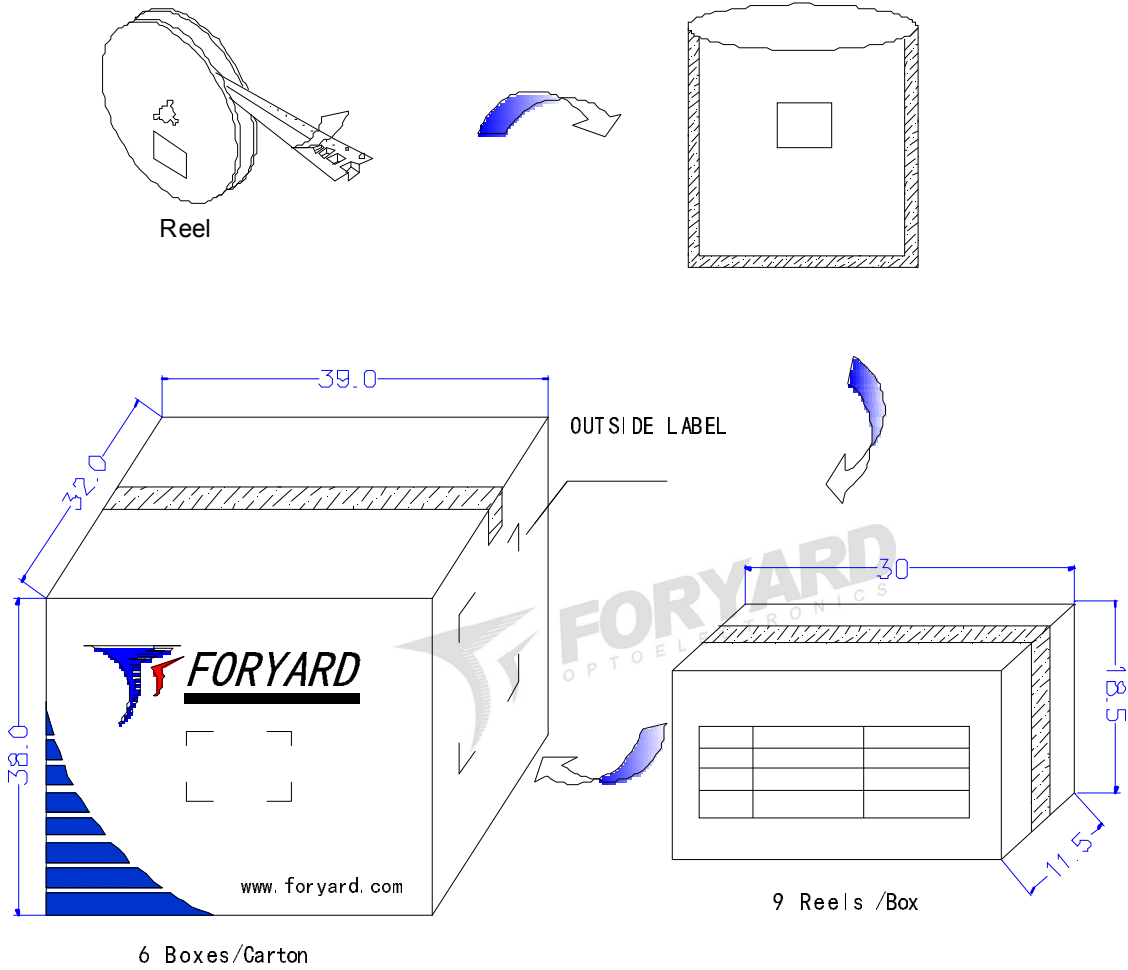


Notice:

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

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3. Packing Diagram



OUTSIDE LABEL

Notice:

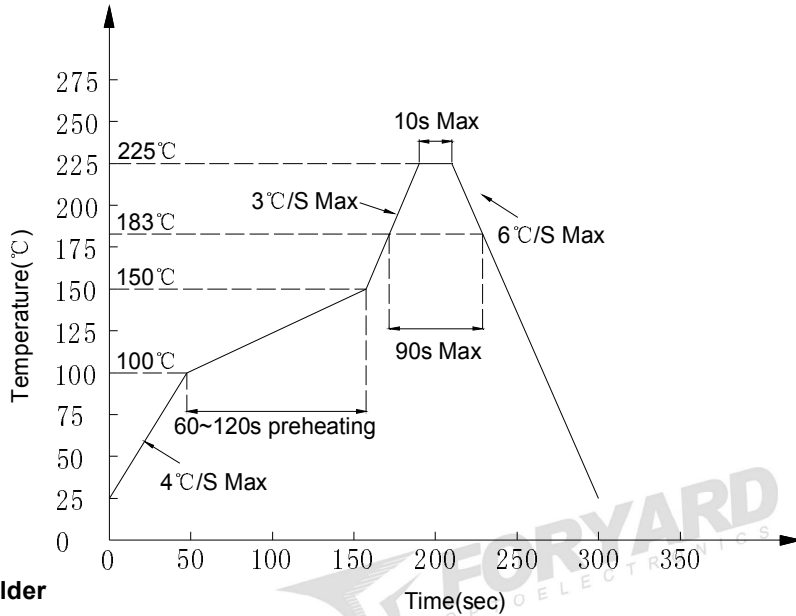
- 1.Quantity:4000 PCS/Reel
- 2.The specifications are subject to change without notice. Please contact us for updated information.

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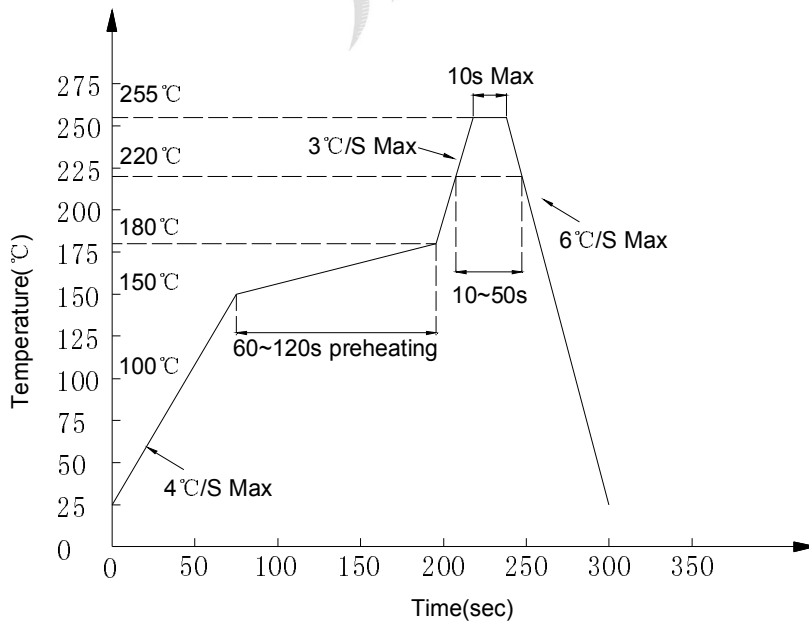
■ Soldering Characteristics-

● 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

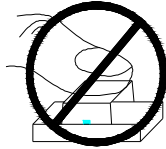
Soldering temperature	350	One time only
Soldering time	3 sec	

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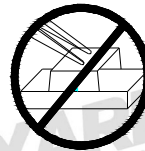
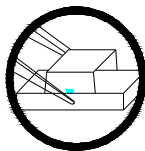
■ **Handling of Silicone Resin LEDs-**

● **Handling Indications**

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

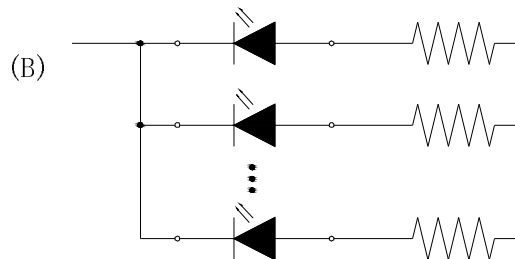
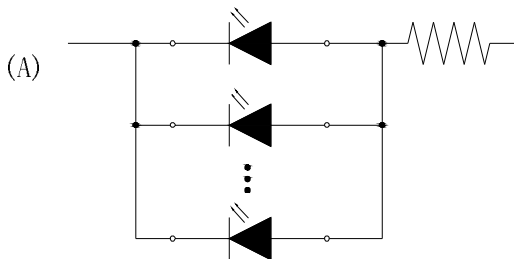


When handling the product with tweezers, LEDs should only be handled from the side and make sure that excessive force is not applied to the resin portion of the product. Failure to comply can cause the resin portion of the product to be cut, chipped, delaminated and/or deformed, and wire to be broken, 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 70°C±5°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 24hours
 - b: Stored with the humidity below 30%RH
 - c: If not finish the soldering in 24hours, need to bake the LED again at 70°C±5°C for 24hours