PRODUCT SPECIFICATION

Model No.: FYLS-2835KUYC-0.2W

Features:

- SMD Type
- Size (mm):3.50*2.80*0.68
- Emitting Color: Yellow.
- Lens Color: Yellow Diffused.
- SMT package
- Suitable for all SMT assembly and soldering method
- Pb-free Reflow soldering application
- RoHS Compliant
- MSL:6

Applications:

- Light Strips
- LCD Backlight
- Decorative lighting
- Indicators
- Interior automotive
- Illuminations
- Mobile Phones

CUSTOMER APPROVED SIGNATURES	APPROVED BY	SALES BY	PREPARED BY
		Foryard S020 2023.05.05	Foryard E001 2023.05.05

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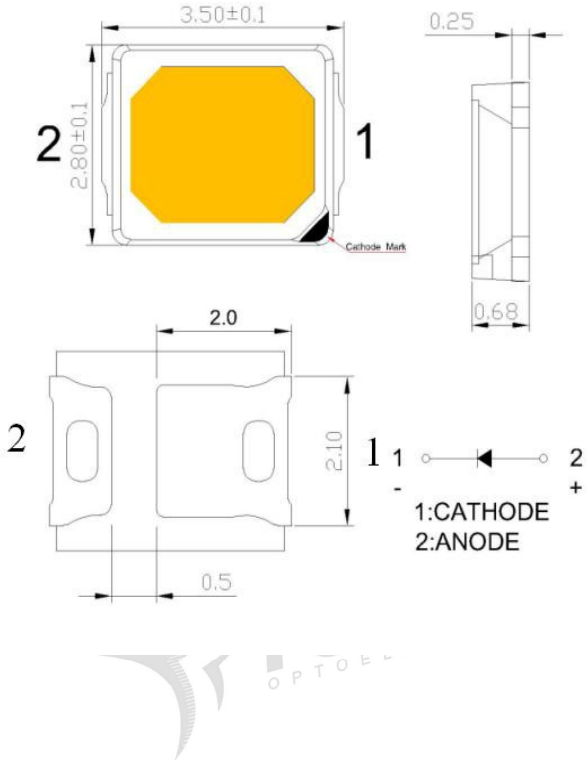
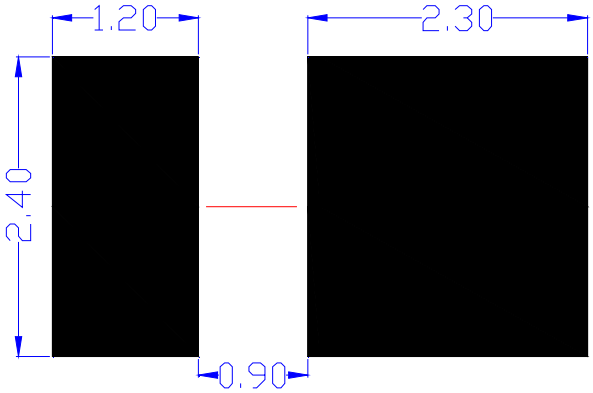
Model No.：FYLS-2835KUYC-0.2W

■ Mechanical Dimensions



■ Recommend Soldering pad design(unit=mm)



Notes:

1. Dimension in millimeter, tolerance is ±0.10.

2.Angle:±5°

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 Maximun Ratings(Ta=25ºC)

Parameter	Symbol	MAX.	Unit
Power Dissipation	PD	200	mW
Peak Forward Current*	IFP	100	mA
Continuous Forward Current	IF	60	mA
Reverse Voltage	VR	5	V
Junction Temperature	TJ	85	℃
Electrostatic Discharge(HBM)	ESD	2000	V
Operating Temperature Range	Topr	-30~ +85	℃
Storage Temperature Range	Tstg	-30~ +100	℃

*1/10 Duty Cycle, 0.1ms Pulse Width

■ Typical Electrical &Optical Charcteristics(Ta=25ºC)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	IF=60mA	2.8	3	3.4	V
Reverse Current	I_R	VR=5V	---	---	10	μA
Dominant Wavelength	λD	IF=60mA	585	---	595	nm
Luminous Flux	Φ	IF=60mA	14	20	---	Lm
Color Rendering Index	Ra	IF=60mA	70	---	---	---
Viewing Angle	$2\theta_{1/2}$	IF=60mA	---	120	---	Deg

■ Material

Item	Reflector	Wire	Encapsulate	Chip
Material	PPA	Gold	Silicone	InGaN/GaN

Note:

1.Luminous Intensity is based on the Foryard standards.

2.Pay attention about static for InGaN

■The Luminous Flux Grade of Products(Unit: Lm) ;Test Condition：IF=60mA,Ta=25℃

Code	L1	L3	L5
Luminous Flux (Lm)	14~16	16~18	18~20

Tolerance of measurement of luminous intensity is ±15%

■Forward Voltage Grade of Products (Unit: V); Test Condition：IF=60mA,Ta=25℃

Code	V7	V8	V9	V10	V11	V12
Forward Voltage(V)	2.8~2.9	2.9~3.0	3.0~3.1	3.1~3.2	3.2~3.3	3.3~3.4

Tolerance of measurement of forward voltage is ±0.1V

■Dominate Wavelength Grade of Products (Unit: nm); Test Condition：IF=60mA,Ta=25℃

Code	UY1	UY2
Dominate Wavelength(nm)	585~590	590~595

Tolerance for each Dominate Wavelength bin is ±1nm

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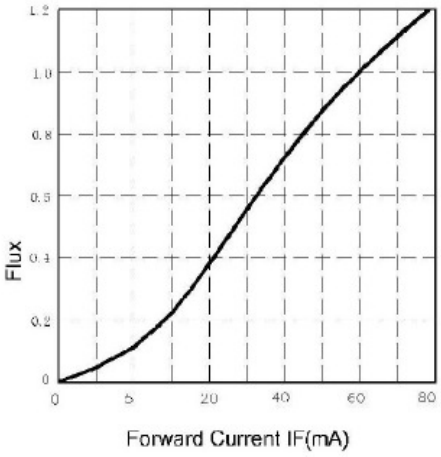
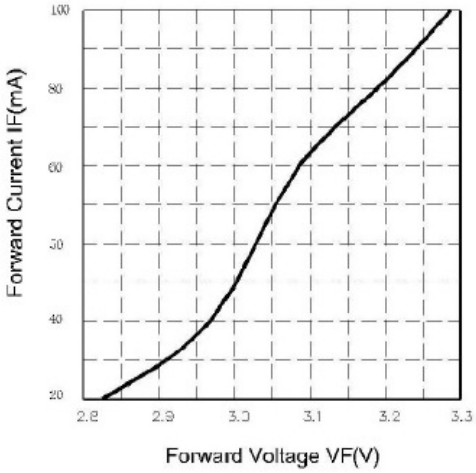
■ **Electrical-Optical Characteristics-**

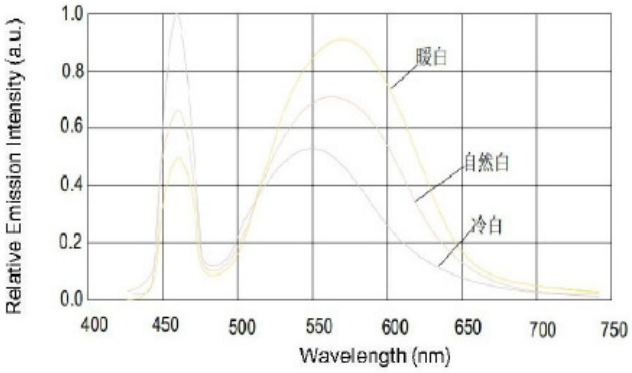
Flux vs. Forward Current



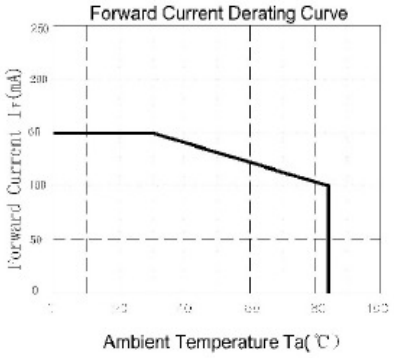
Forward Voltage VS Forward Curent



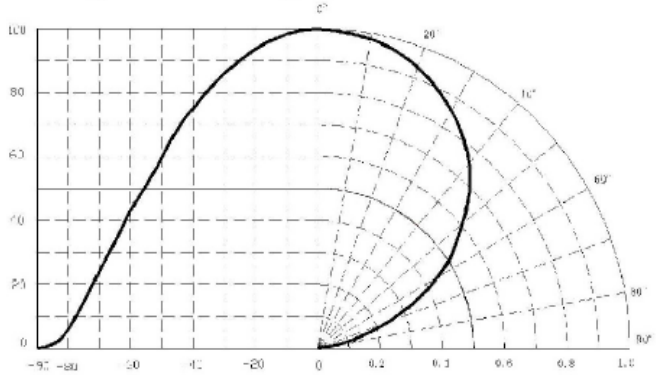
Relative Emission Intensity VS Wavelength



Forward Current Derating Curve



Typical Lambertian Type Radiation Pattern



NOTE:25°C free air temperature unless otherwise specified

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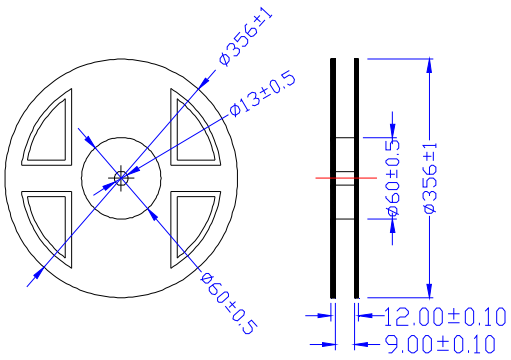
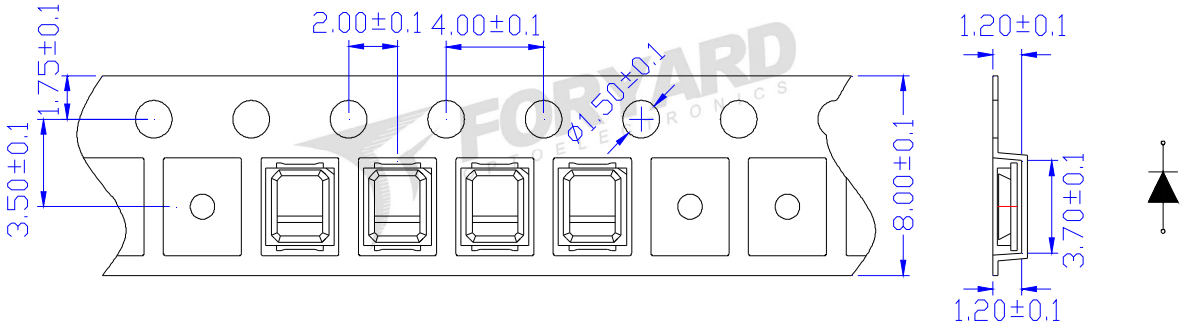
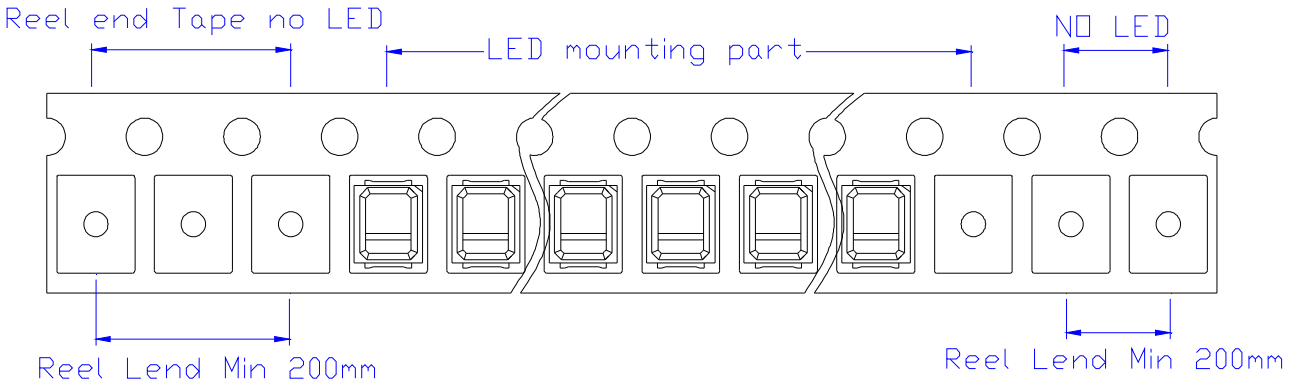
■ Package-

1. Reel Dimension



2. Tape Dimension





Notice:

1.Tolerance unless mentioned is ±0.2mm

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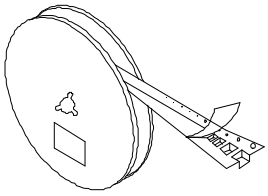
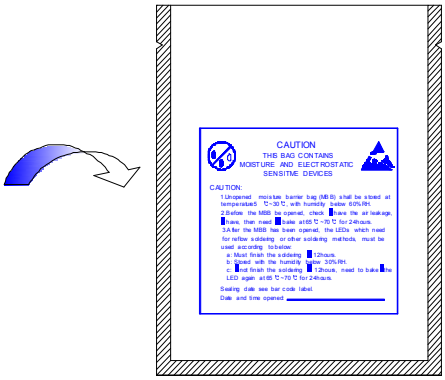
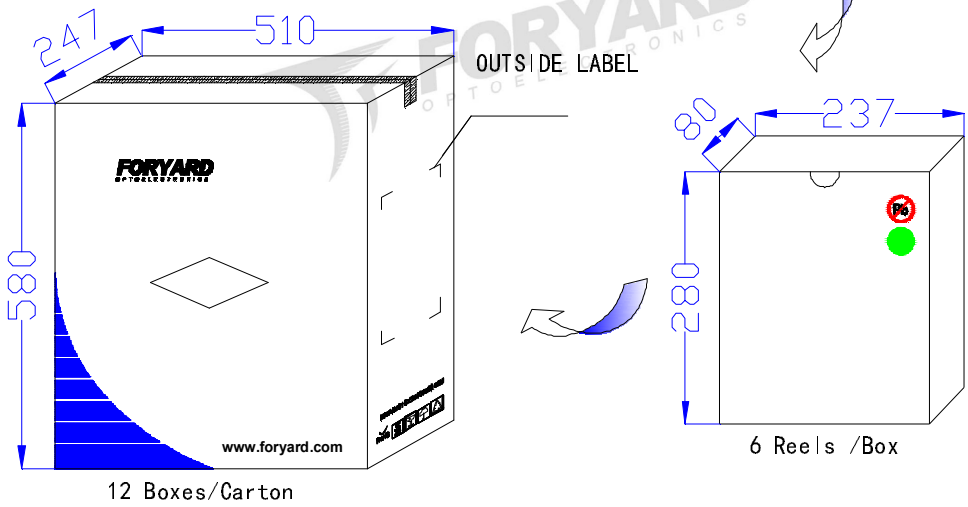
3. Packing Diagram



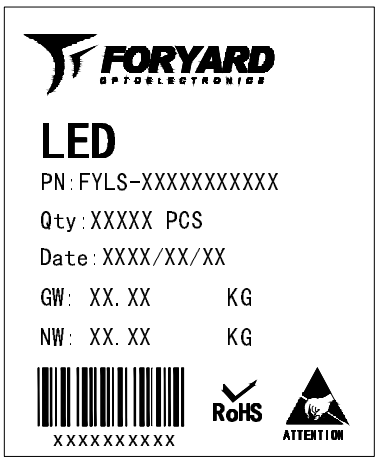
Reel





12 Boxes/Carton

6 Reels /Box



OUTSIDE LABEL

Notice:

1.Quantity:16000 PCS/Reel

2.The specifications are subject to change without notice. Please contact us for updated information.

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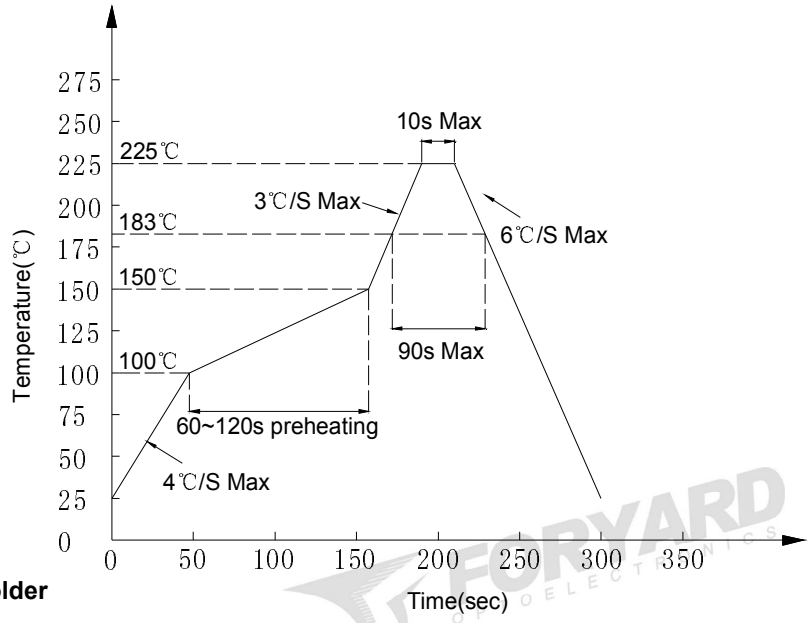
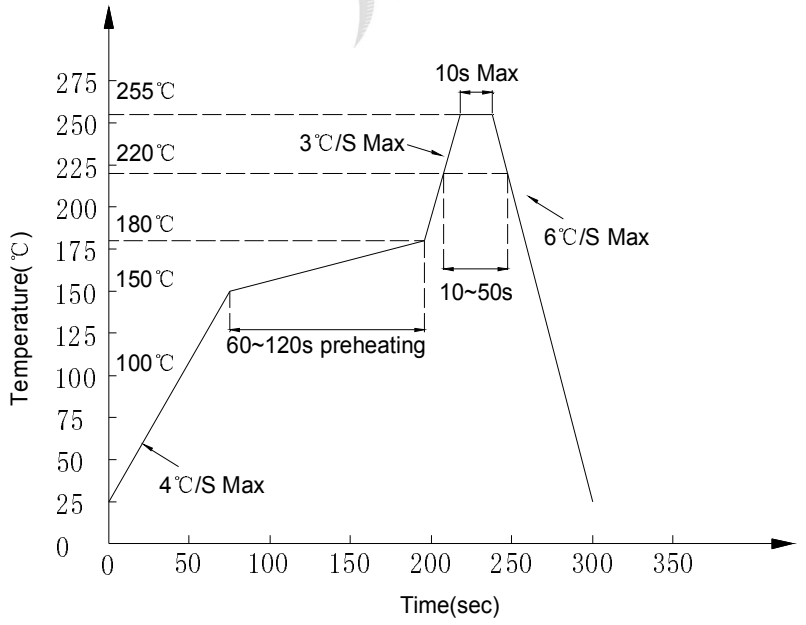
■ **Soldering Characteristics-**

● **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℃ Max.（25W Max.）	One time olny
Soldering time	5 ±1sec	

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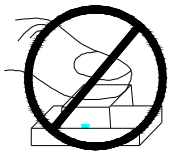
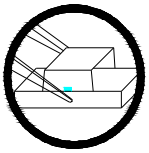
■ Handling of Silicone Resin LEDs-

● **Handling Indications**

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



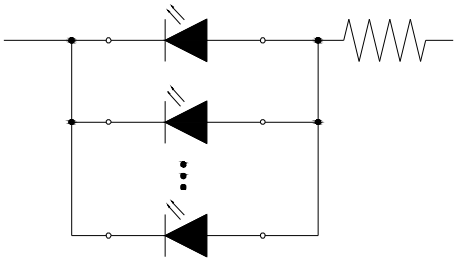
When handling the product with tweezers,LEDs should only be handled from the side and make sure that excessive force is not applied to the resin portion of the pordct. Failure to comply can cause the resin portion of the product to be cut,chipped,delaminated and/or deformed, and wire to be broken, and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



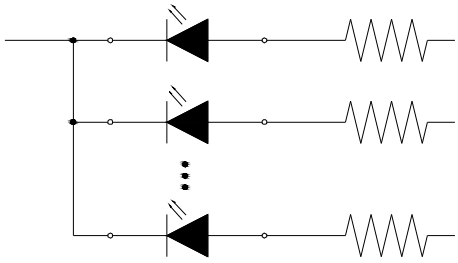
■ Recommended circuit-

- 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 LE 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.

(A)



(B)



- 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℃~30℃, 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℃~70℃ 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℃~70℃ for 24hours