Model No.:	SAVLS-1204RGBC
Date / Rev.	2026.03.12 / A

PRODUCT SPECIFICATION

Model No.: SAVLS-1204RGBC

Features:

- SMD Type
- Size (mm):3.20*1.00*1.50
- Emitting Color:Ultra Red;Purea Green;Ultra Blue
- Dice material: AlGaInP;InGaN/GaN;InGaN/GaN
- Lens Color: White Diffused
- SMT package
- Suitable for all SMT assembly and soldering method
- Pb-free Reflow soldering application
- RoHS Compliant
- SIDE LED
- MSL:4

Applications:

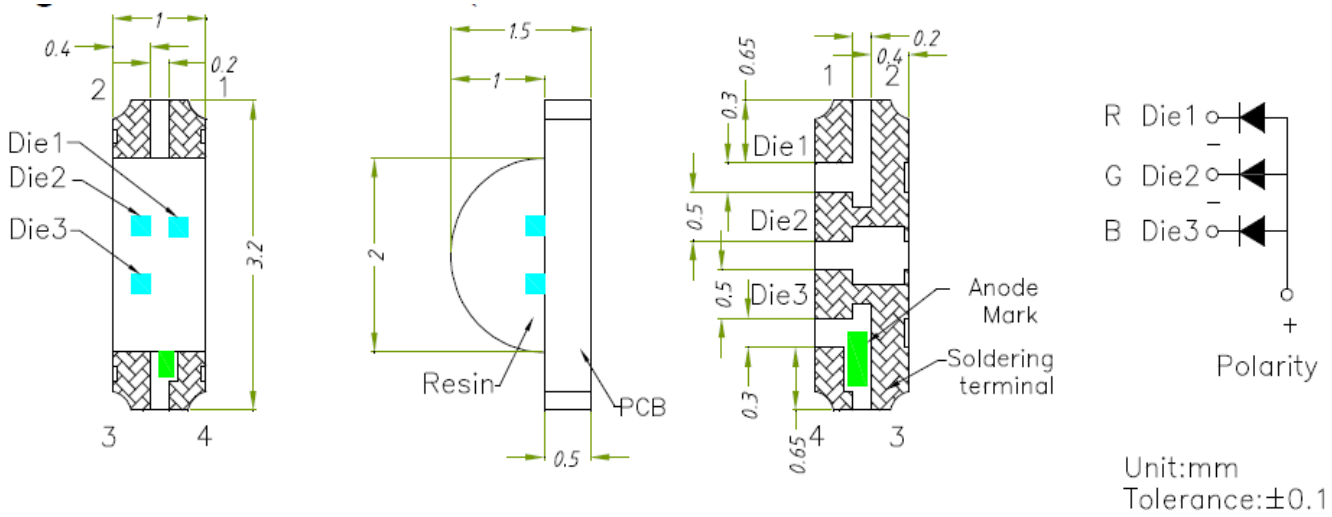
- Light Strips
- LCD Backlight
- Decorative lighting
- Indicators
- Interior automotive
- Illuminations
- Mobile Phones

CUSTOMER APPROVED SIGNATURES	APPROVED BY	SALES BY	PREPARED BY
		Foryard S020 2026.03.12	Foryard E001 2026.03.12

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Tel: 0086-574-87933652 87927870
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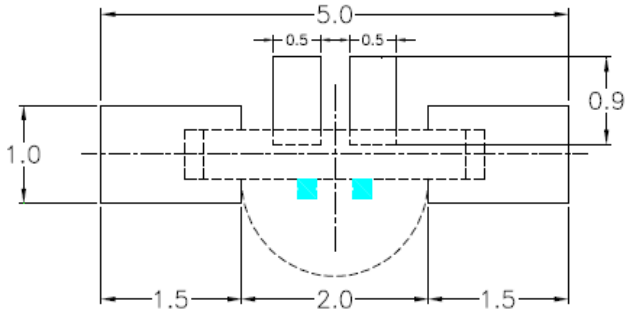
Model No.: SAVLS-1204RGBC

■ Mechanical Dimensions



1. Soldering terminal may shift in x, y direction.

■ 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
		R	G	B	
Power Dissipation	PD	78	84	84	mW
Peak Forward Current*	IFP	100	100	100	mA
Continuous Forward Current	IF	30	20	20	mA
Reverse Voltage	VR	5			V
Operating Temperature Range	Topr	-40~ +85			℃
Storage Temperature Range	Tstg	-40~ +85			℃

*1/10 Duty Cycle, 0.1ms Pulse Width

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

Parameter	Color	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	R	V_F	IF=20mA	1.7	2.0	2.4	V
	G			2.6	3.0	3.4	
	B			2.6	3.0	3.4	
Peak Wavelength	R	λp	IF=20mA	---	645	---	nm
	G			---	523	---	
	B			---	468	---	
Dominant Wavelength	R	λD	IF=20mA	617	625	632	nm
	G			520	525	535	
	B			465	470	475	
Luminous Intensity	R	Iv	IF=20mA	72	115	---	mcd
	G			180	500	---	
	B			45	100	---	
Reverse Current	I_R		VR=5V	---	---	10	μA
Viewing Angle	$2\theta_{1/2}$		IF=20mA	---	110	---	Deg

Note:

1.Luminous Intensity is based on the Foryard standards.

2.Pay attention about static for InGaN

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■Luminous Intensity Guide (Unit: mcd) @IF=20mA

R	Code	K	L
	Luminous Intensity(mcd)	72~115	115~180

■Dominate Wavelength Guide (Unit: nm) @IF=20mA

R	Code	1	2	3
	Dominate Wavelength(nm)	617~622	622~627	627~632

■Luminous Intensity Guide (Unit: mcd) @IF=20mA

G	Code	M	N	P	Q	R
	Luminous Intensity(mcd)	180~285	285~450	450~650	650~850	850~1150

■Dominate Wavelength Guide (Unit: nm) @IF=20mA

G	Code	1	2	3
	Dominate Wavelength(nm)	520~525	525~530	530~535

■Luminous Intensity Guide (Unit: mcd) @IF=20mA

B	Code	J	K	L
	Luminous Intensity(mcd)	45~72	72~115	115~180

■Dominate Wavelength Guide (Unit: nm) @IF=20mA

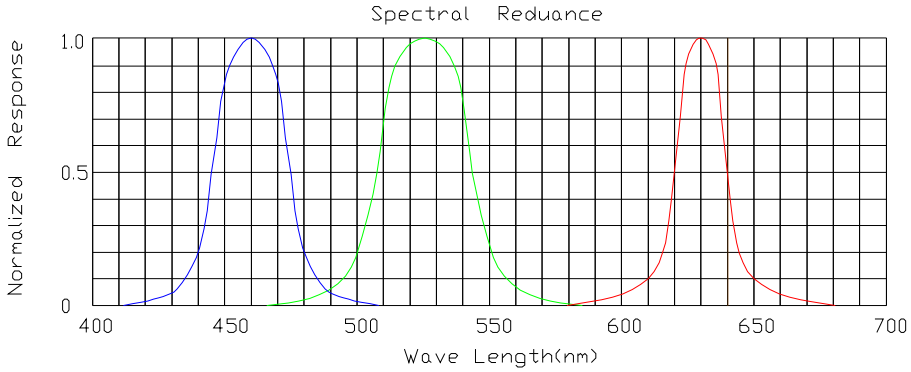
B	Code	1	2
	Dominate Wavelength(nm)	465~470	470~475

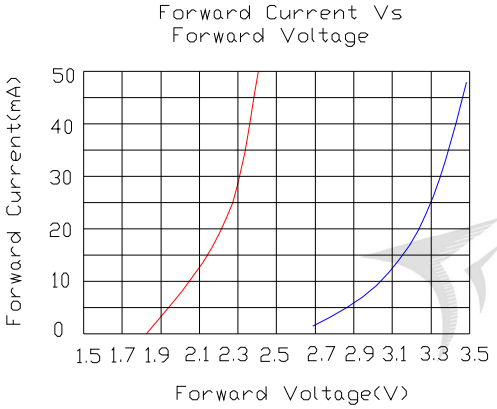
Tolerance of measurement of luminous intensity is ±15%

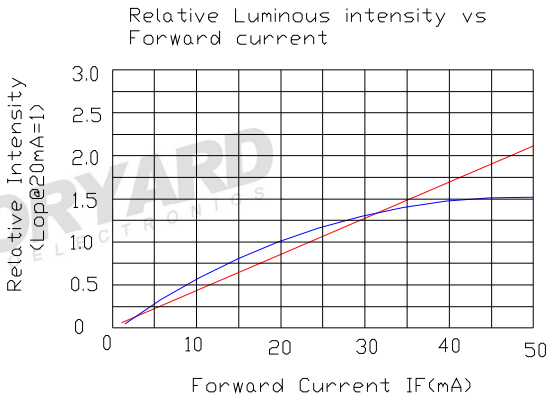
Tolerance for each Dominate Wavelength bin is ±1nm

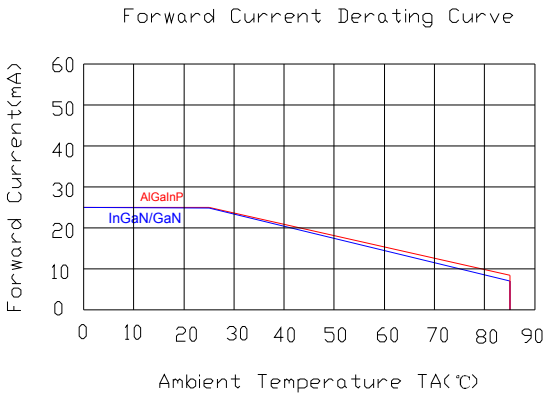
Model No.: SAVLS-1204RGBC

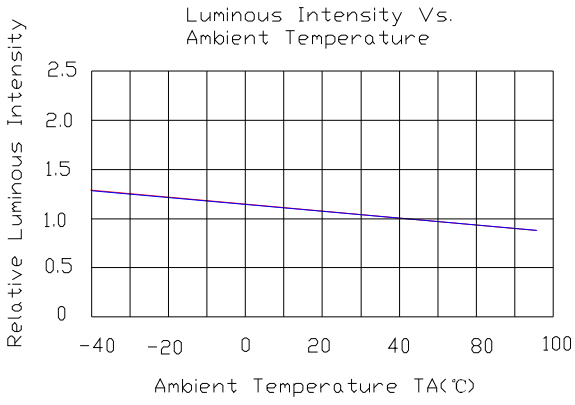
■ Electrical-Optical Characteristics-





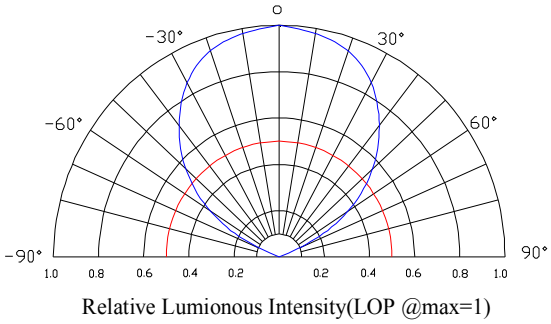






NOTE:25°C free air temperature unless otherwise specified

■ Radiation pattern-

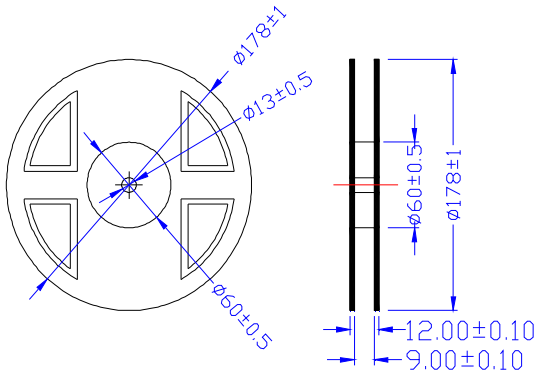


Relative Lumionous Intensity(LOP @max=1)

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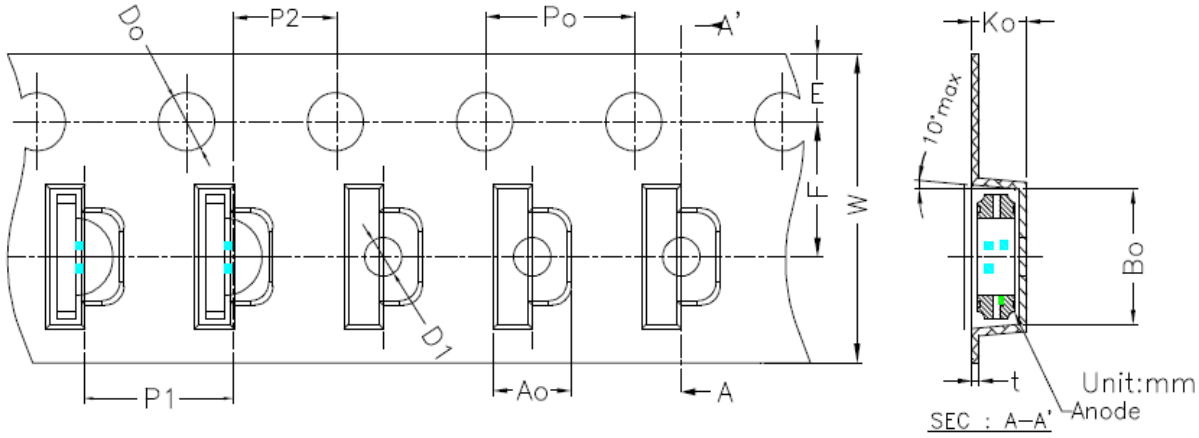
■ Package-

1. Reel Dimension



2. Tape Dimension

Packing Size													
Item	W	P1	E	F	Do	D1	Po	10Po	P2	Ao	Bo	Ko	t
Spec.	8.00	4.00	1.75	3.50	1.50	1.00	4.00	40.00	2.00	1.75	3.40	1.25	0.23
Tolerance	+0.30 −0.10	±0.10	±0.10	±0.05	+0.10 −0.00	+0.25 −0.00	±0.10	±0.20	±0.05	±0.10	±0.10	±0.10	±0.02

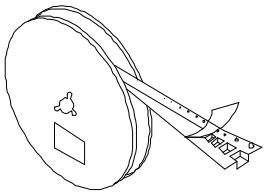


Notice:

1.Tolerance unless mentioned is ±0.2mm

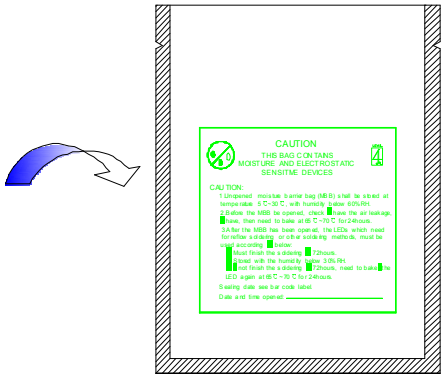
Model No.: SAVLS-1204RGBC

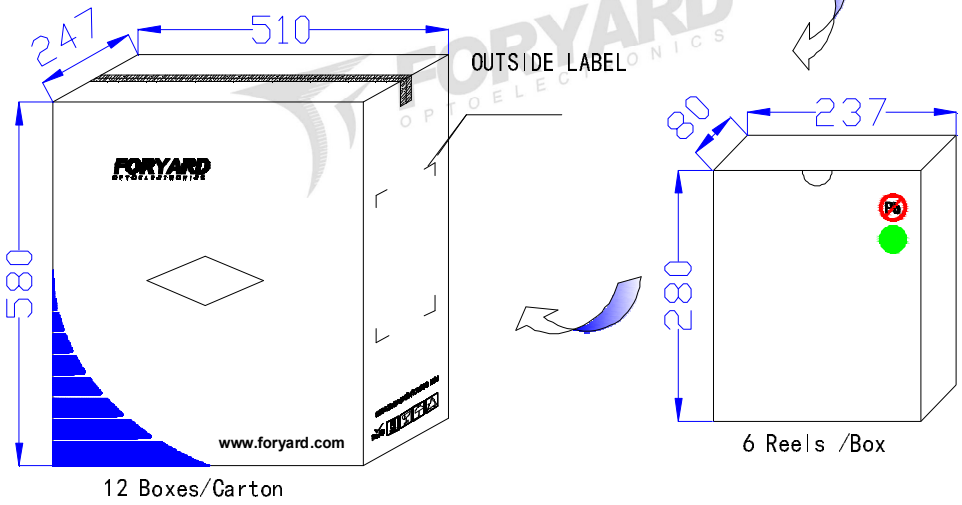
3. Packing Diagram



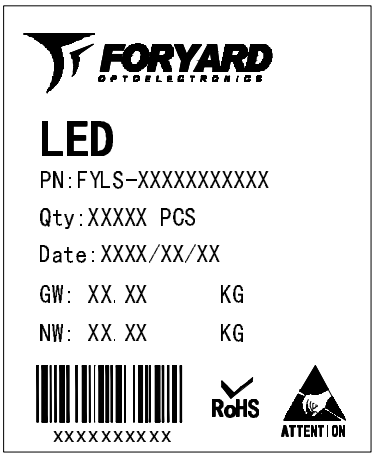
Reel







12 Boxes/Carton



OUTSIDE LABEL

Notice:

1.Quantity:3000 PCS/Reel

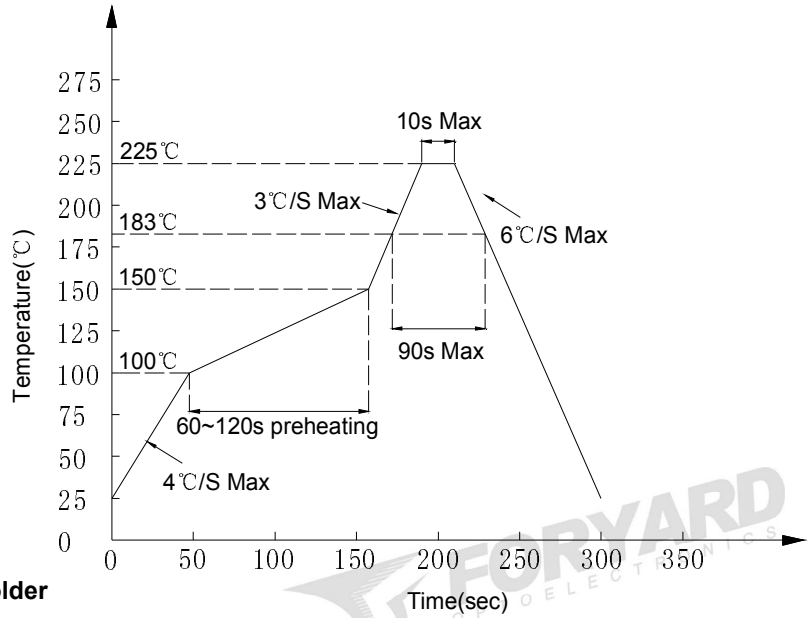
2.The specifications are subject to change without notice. Please contact us for updated information.

Model No.: SAVLS-1204RGBC

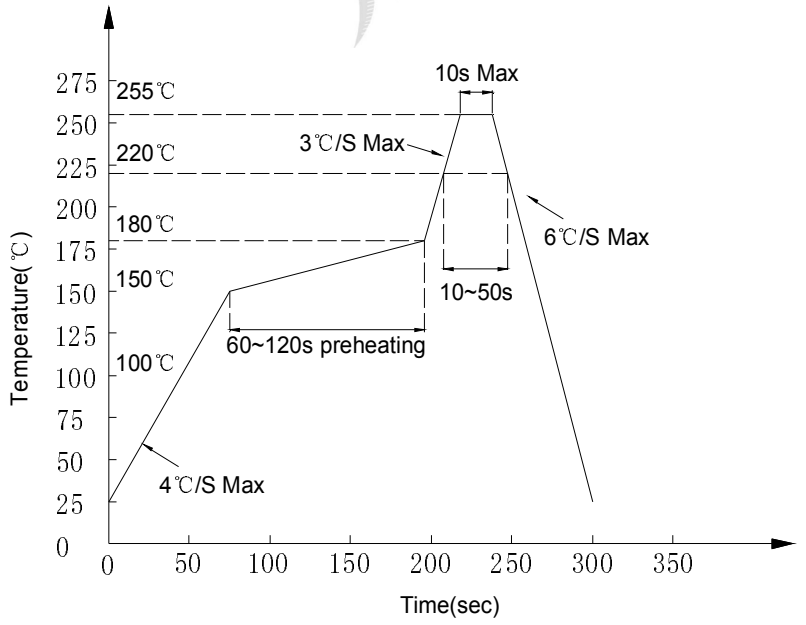
■ **Soldering Characteristics-**

● **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**

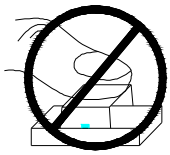
Soldering temperature	300℃ Max.（25W Max.）	One time olny
Soldering time	5 ±1sec	

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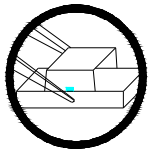
■ Handling of Silicone Resin LEDs-

● **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.

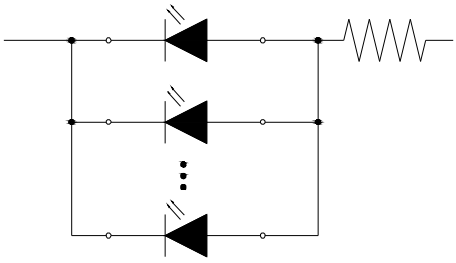




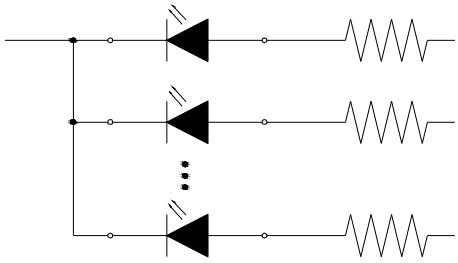
■ Recommended circuit-

- 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 72hours

b: Stored with the humidity below 30%RH

c: If not finish the soldering in 72hours, need to bake the LED again at 65℃~70℃ for 24hours