

TX-5050WS30FC180-NUVENG-03H80

PRODUCT SPECIFICATION

Features:

- ◆ Excellent transiting heat from LED chip operating under W:2.5A*2 S:2.0A*2.
- ◆ Provide uniform cross distribution of positive white and warm white dual color scheme, mixed pure.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ GaN

Emitting Color:

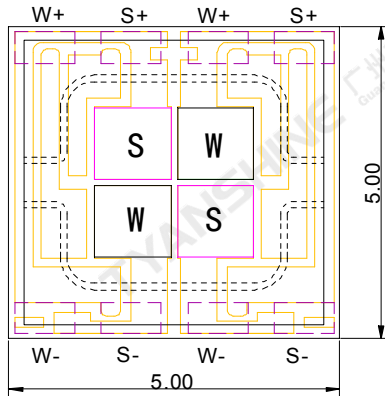
- ◆ White
- ◆ Warm white

Applications:

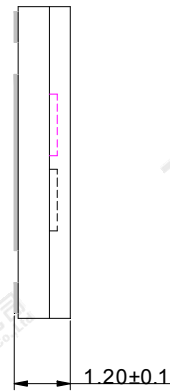
- ◆ Auxiliary lighting
- ◆ Ambient lighting
- ◆ Architectural lighting

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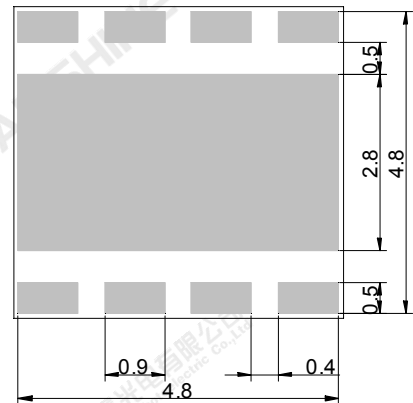
Package Dimensions:



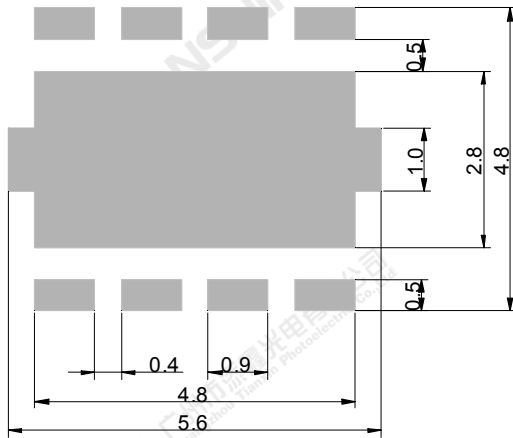
Top view



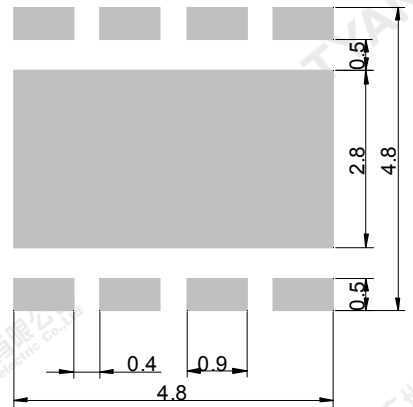
Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are ± 0.1 mm .

Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol		Ratings	Unit
Forward Current	IF	W	2.5	A
		S	2.0	
Reverse Voltage	VR		Not designed for reverse operation	V
Power Dissipation	PD	W	19	W
		S	15.2	
Junction Temperature	Tj	W	150	°C
		S	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	Tstg		-20~+65	°C
Operation Temperature	Topr		-40~+100	

Notes:

- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- Precautions for ESD:
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

Electrical Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	ϕ_v	IF=1.0A	W	400	435	470	lm
		IF=2.5A	W	660	740	820	
		IF=1.0A	S	280	310	340	
		IF=2.0A	S	410	460	510	
Forward Voltage	V_f	If(w)=2.5A*2 If(s)=2.0A*2	W	3.3	3.5	3.8	V
			S	3.3	3.5	3.8	
Correlated Colour Temperature	CCT	IF=1.0A	W	5800	6200	6600	K
			S	2590	2720	2840	
Viewing Angle at 50% IV	$2\theta_{1/2}$	—	W	—	120	—	Deg
			S	—	120	—	
Reverse Current	I_R	—	W	—	—	—	μA
			S	—	—	—	
Thermal Resistance Junction to Case	$R\theta_{J-C}$		W	—	1.8	—	K/W
			S	—	1.8	—	
Temperature Coefficient of Voltage	$V\Delta F/T$	If(w)=2.5A*2 If(s)=2.0A*2	W	—	-4.8	—	mV/°C
			S	—	-6.0	—	
Color Rendering Index	Ra		W	80	82.5	—	—
			S	80	82.5	—	

White light Color coordinate filing IF=1.0A

Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
Q	2590K	2670K	0.4656	0.4072	0.4591	0.4058	0.4655	0.4175	0.4725	0.4188
P	2670K	2780K	0.4591	0.4058	0.4513	0.4041	0.4572	0.4158	0.4655	0.4175
O	2780K	2840K	0.4513	0.4041	0.4463	0.4030	0.4523	0.4147	0.4572	0.4158
G	5800K	6000K	0.3260	0.3328	0.3321	0.3293	0.3213	0.3413	0.3254	0.3419
F	6000K	6400K	0.3221	0.3281	0.3155	0.3225	0.3142	0.3328	0.3214	0.3391
E	6400K	6600K	0.3156	0.3213	0.3126	0.3192	0.3112	0.3285	0.3145	0.3308

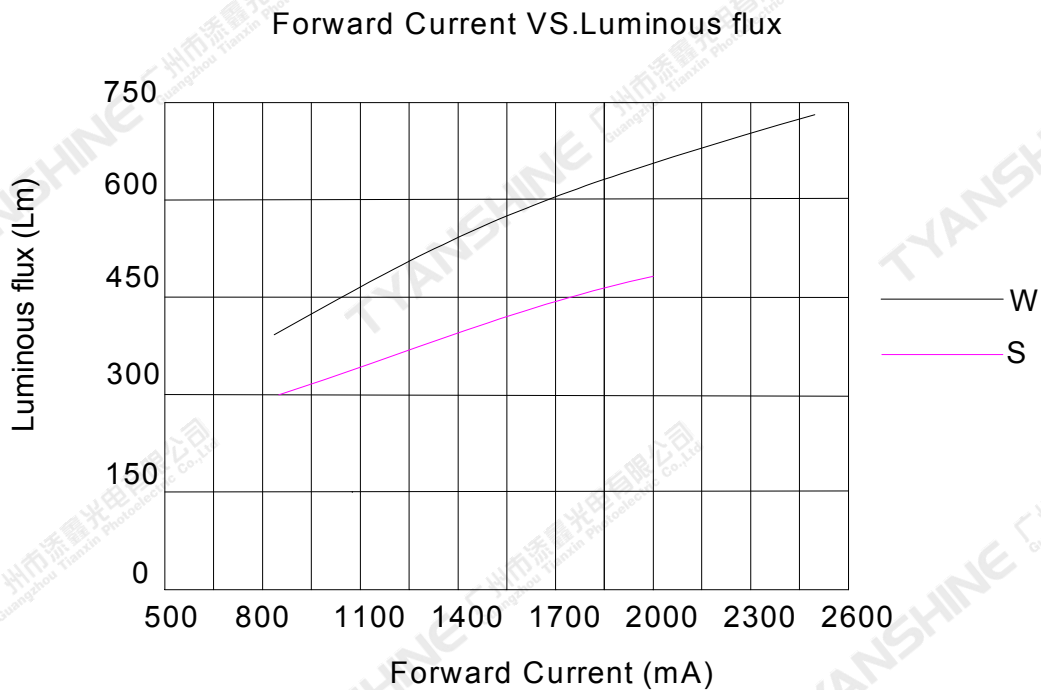
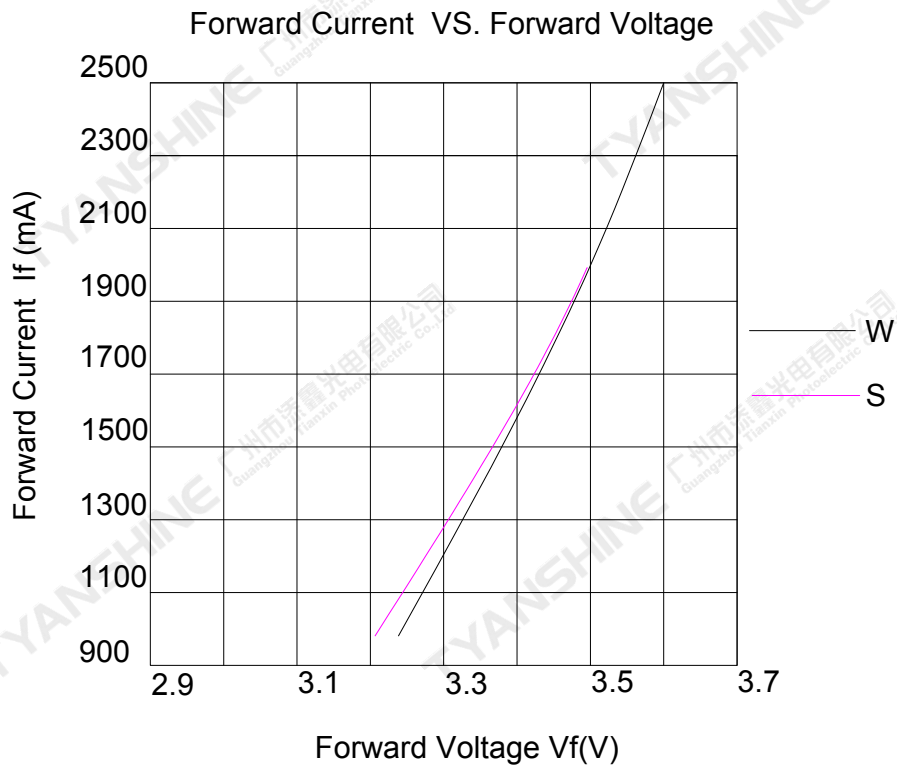
Notes:

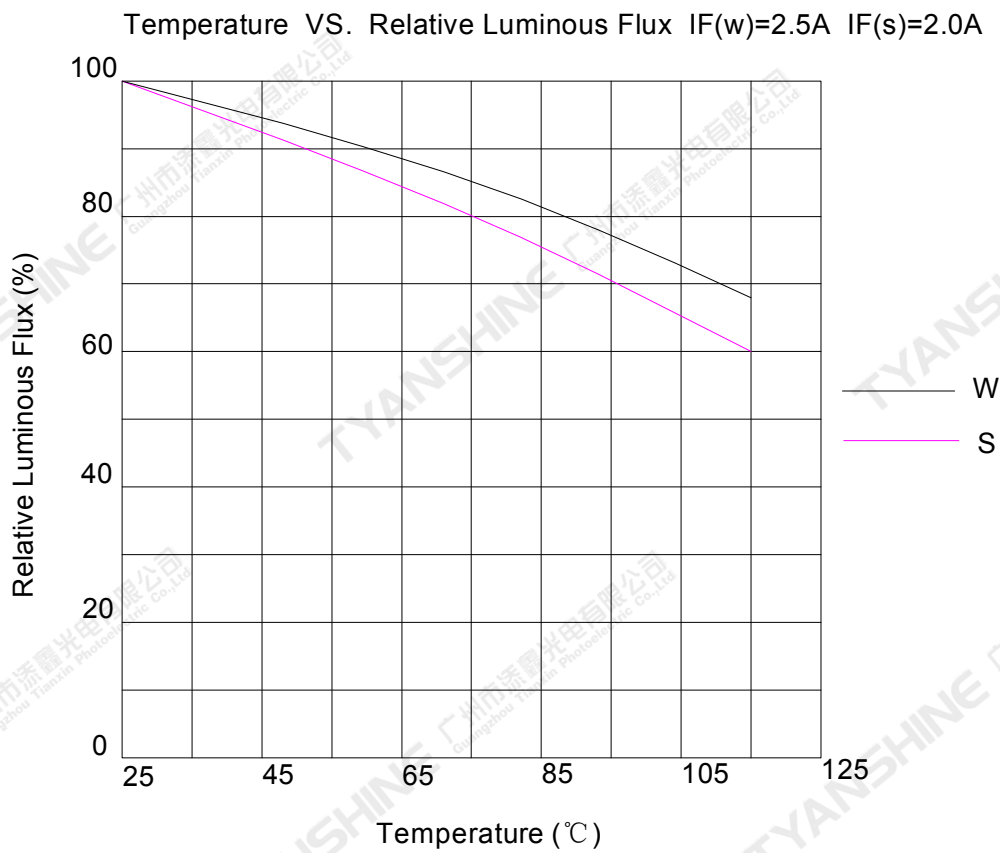
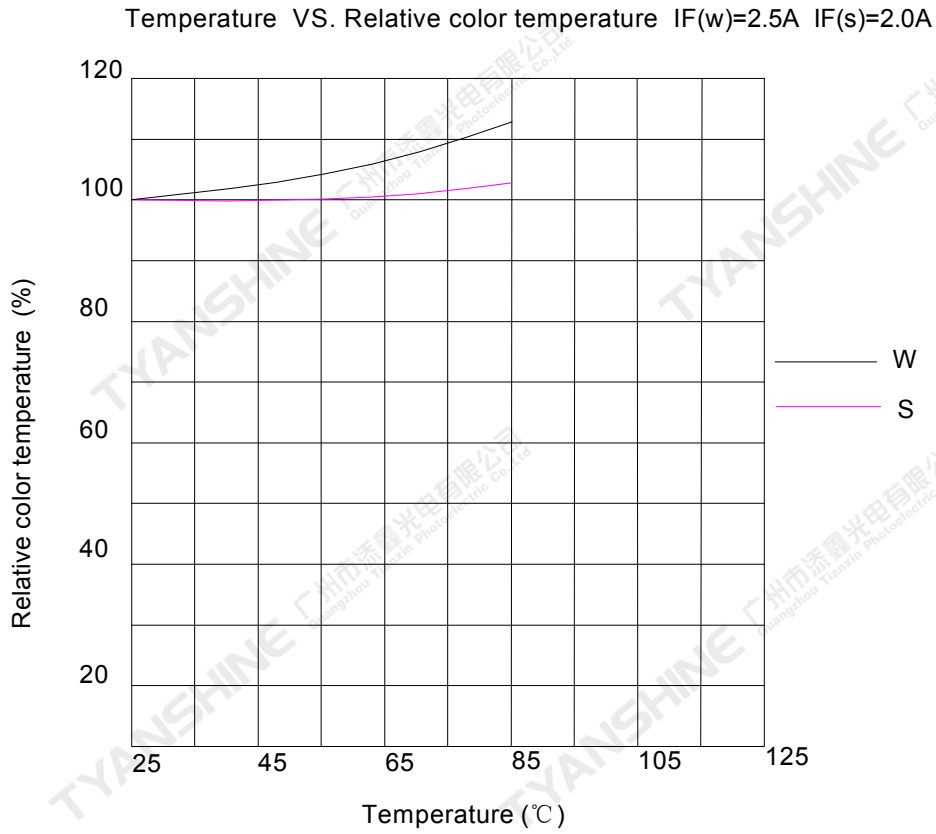
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.Luminous flux measurement tolerance: $\pm 15\%$.
- 4.Forward voltage measurement tolerance: $\pm 0.15V$.

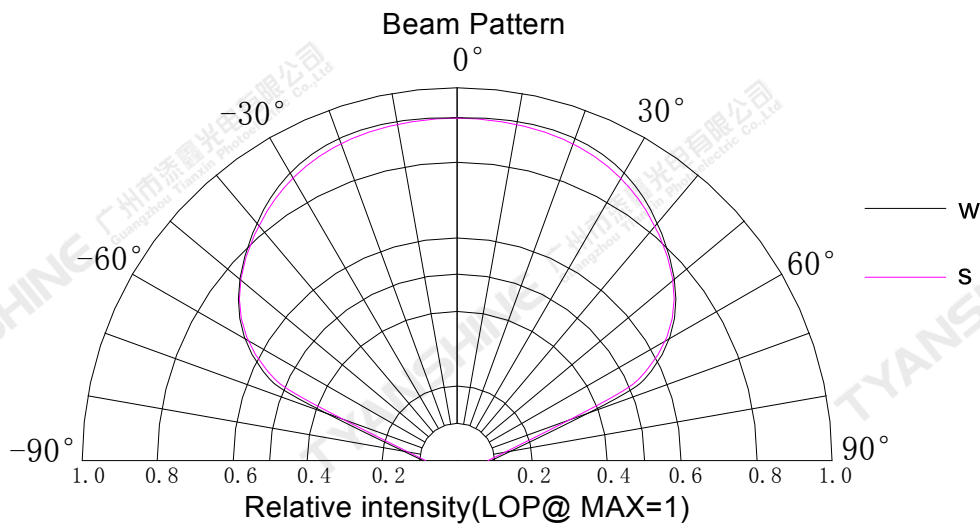
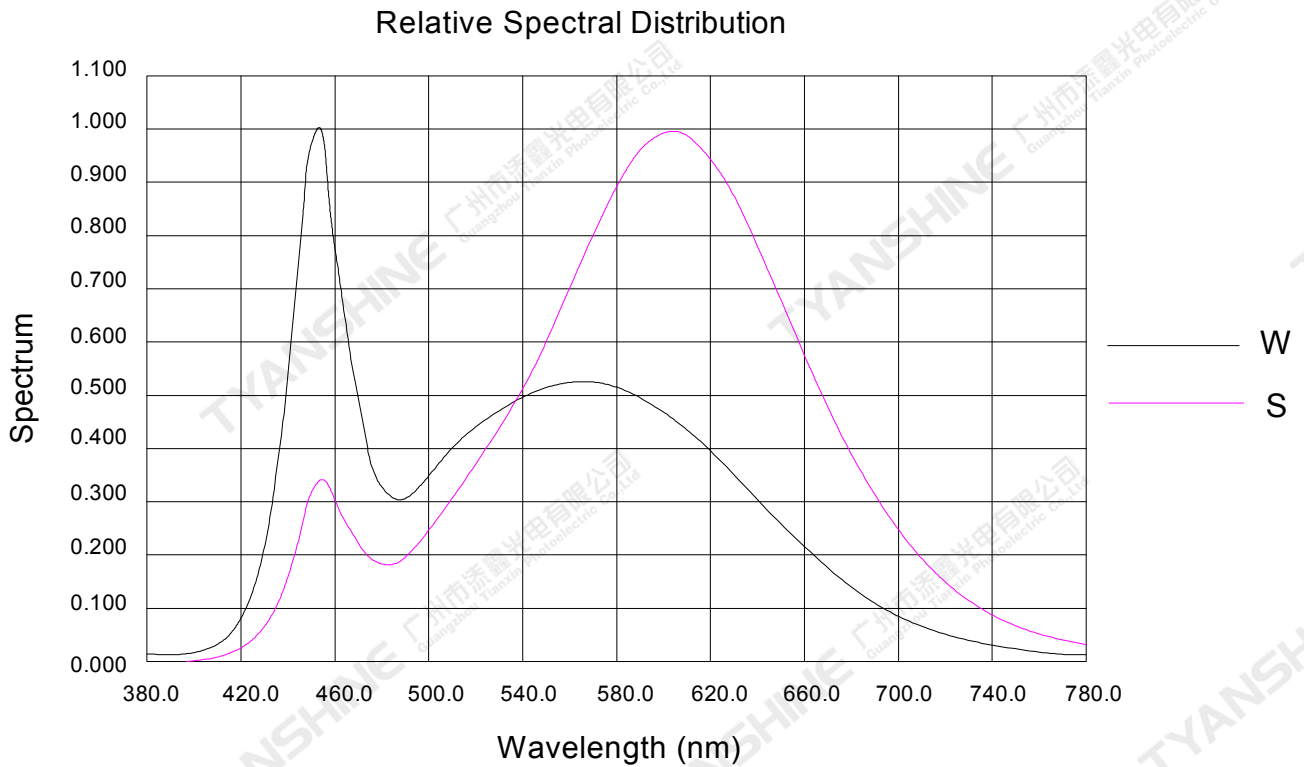
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Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)







Notes:

1. $2\theta_{1/2}$ is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. View angle tolerance is $\pm 5^\circ$.

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Usage Precautions

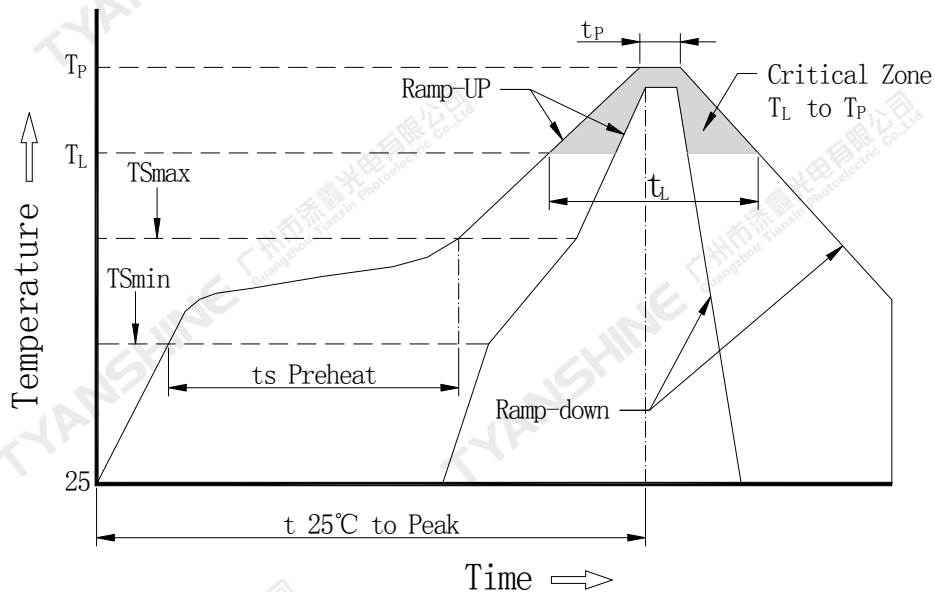
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



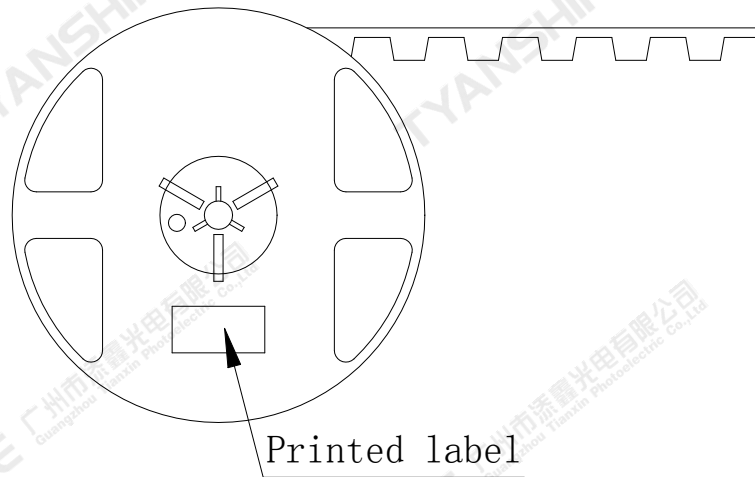
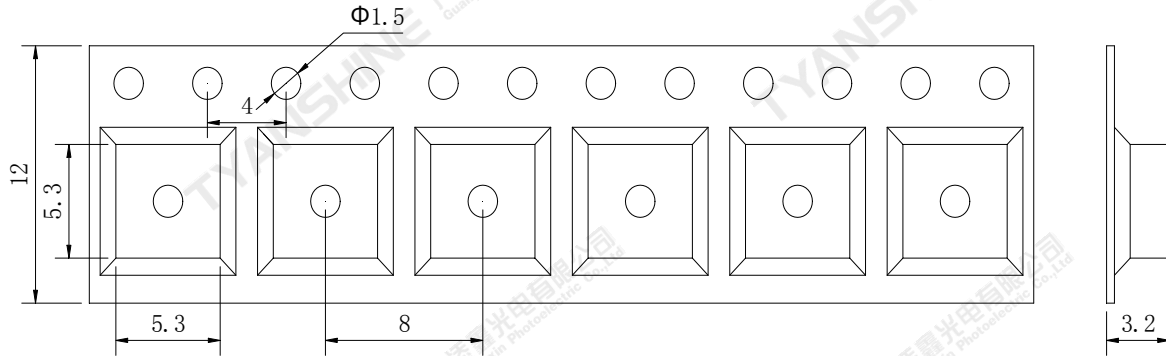
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (TSmax to TP)	3°C/second max.
Preheat: Temperature Min (TSmin)	100°C
Preheat: Temperature Max (TSmax)	150°C
Preheat: Time (TSmin to TSmax)	60-120 seconds
Time Maintained Above: Temperature (TL)	183°C
Time Maintained Above: Time (TL)	60-150 seconds
Peak/Classification Temperature (TP)	225°C
Time Within 5°C of Actual Peak Temperature (TP)	10-30 seconds
Ramp-Down Rate	6°C/second max.
Time 25°C to Peak Temperature	6 minutes max.

Note:

All temperatures refer to topside of the package, measured on the package body surface.

Dimensions For Cannulation And Packaging

Quantity:500PCS



Notes:

1. All dimensions are in millimeters.
2. Tolerances are ± 2.0 mm unless otherwise noted.
3. The products are packaged together with silica gel, Transport, not to the weight of welding LED light-emitting area, As a result of the weight of LED light-emitting zone in the quality of, Irresponsible of the Company.

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