

TX-5050WS10FCB2-NG4DA-01H90

PRODUCT SPECIFICATION

Features:

- ◆ Excellent transiting heat from LED chip operating under 1000 mA.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ GaN
- ◆ GaN

Emitting Color:

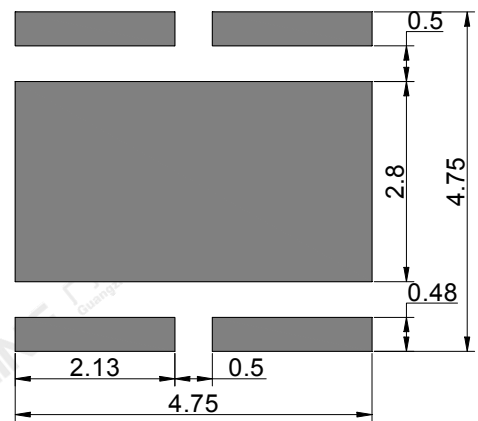
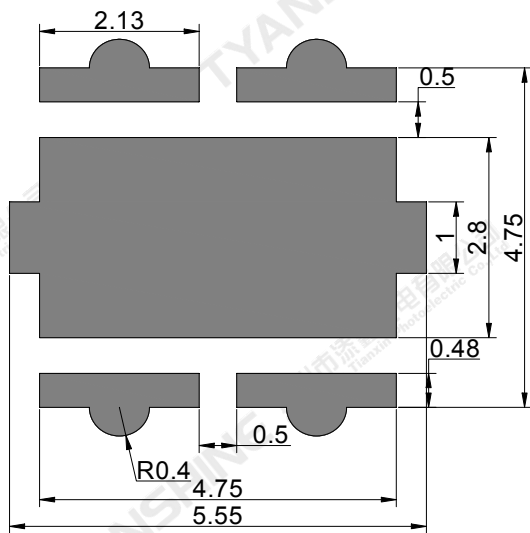
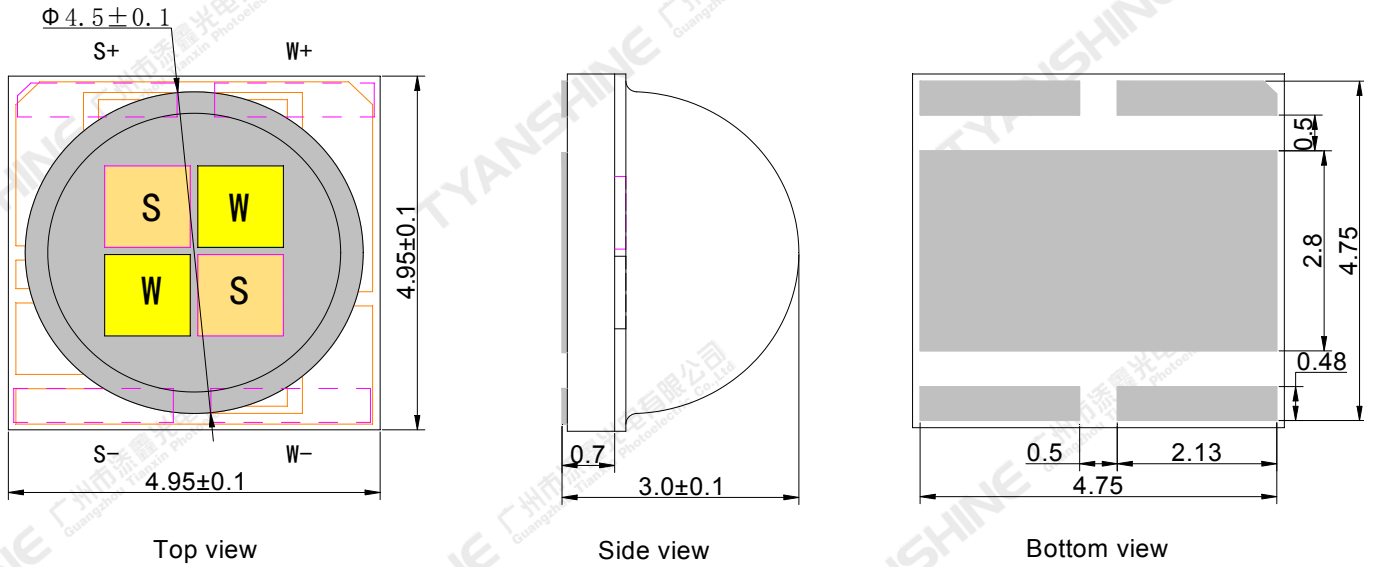
- ◆ white(W)
- ◆ Warm white(S)

Applications:

- ◆ Auxiliary lighting
- ◆ Architectural lighting
- ◆ General Lighting

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Package Dimensions:



Notes:

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

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Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Ratings	Unit	
Forward Current	IF	W	1000	mA
		S	1000	
Reverse Voltage	VR	Not designed for reverse operation	V	
Power Dissipation	PD	W	6.4	W
		S	6.4	
Junction Temperature	Tj	150	°C	
Electrostatic Discharge Threshold (ESD)	ESD	ESD sensitive device	V	
Storage Temperature	Tstg	-40~+70	°C	
Operation Temperature	Topr	-30~+85		

Notes:

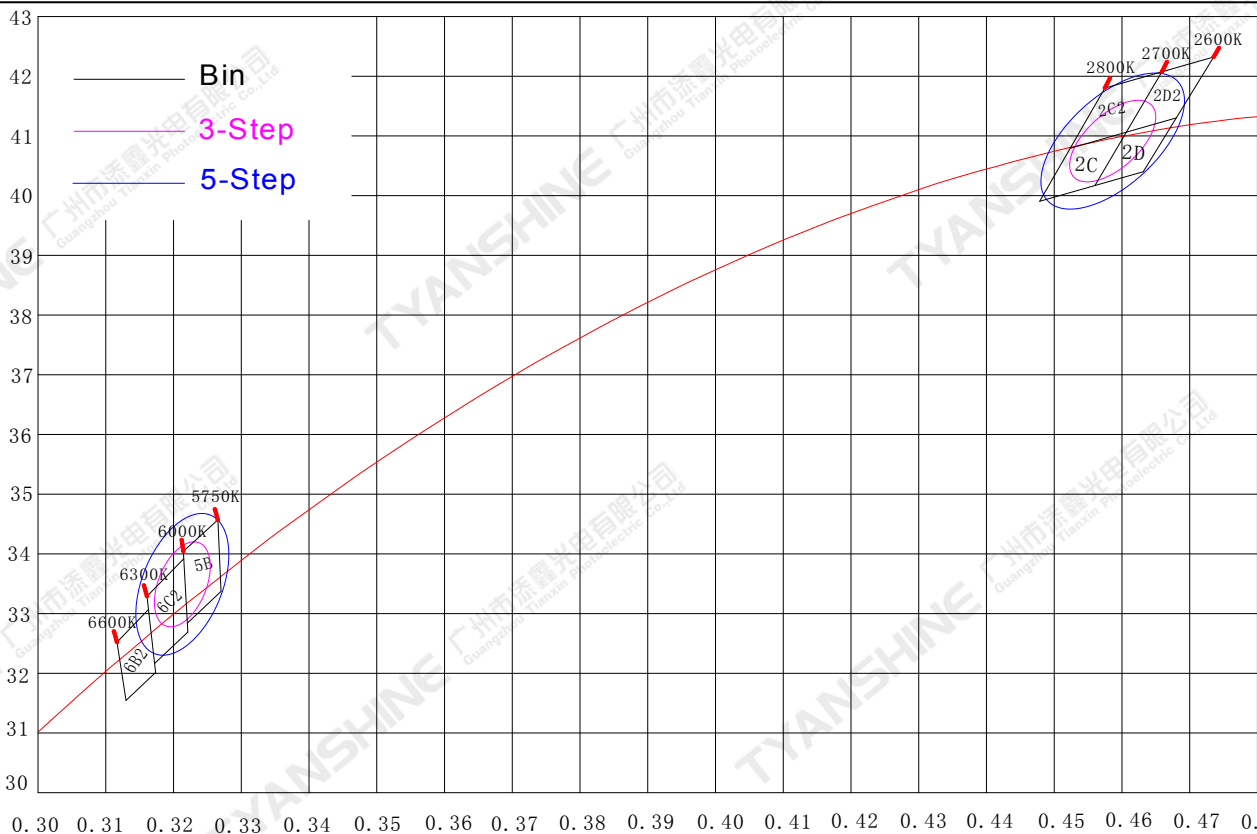
- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- Precautions for ESD:
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic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

Electrical Optical Characteristics (Tc=25°C , 700mA)

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	ϕ_v	W	420	460	500	lm
		S	340	375	410	
Correlated Colour Temperature	CCT	W	5750	6000	6600	K
		S	2600	2700	2800	
Color Rendering Index	Ra	W	90	92.5	—	—
		S	90	92.5	—	
Forward Voltage	V_f	W	5.8	6.1	6.4	V
		S	5.8	6.2	6.4	
Viewing Angle at 50% IV	$2\theta_{1/2}$	W	—	120	—	Deg
		S	—	120	—	
Reverse Current	I_R	—	—	—	—	μA
		—	—	—	—	
Thermal Resistance Junction to Case	$R\theta_{J-C}$	W	—	1.8	—	K/W
		S	—	1.8	—	
Temperature Coefficient of Voltage	$V\Delta F/T$	W	—	-6.0	—	mV/°C
		S	—	-4.8	—	

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:±10%.
- 4.Forward voltage measurement tolerance:±10%V.
- 5.Ra measurement tolerance:±2.



White light Color coordinate filing (Tc=25℃, IF=700mA)

Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
2D	2600K	2700K	0.4631	0.4040	0.4560	0.4017	0.4606	0.4106	0.4680	0.4130
2D2			0.4680	0.4130	0.4606	0.4106	0.4659	0.4207	0.4735	0.4232
2C	2700K	2800K	0.4560	0.4017	0.4479	0.3991	0.4524	0.4079	0.4606	0.4106
2C2			0.4606	0.4106	0.4524	0.4079	0.4575	0.4180	0.4659	0.4207
5B	5750K	6000K	0.3270	0.3337	0.3220	0.3284	0.3214	0.3404	0.3265	0.3457
6C2	6000K	6300K	0.3221	0.3269	0.3172	0.3216	0.3161	0.3329	0.3215	0.3392
6B2	6300K	6600K	0.3174	0.3201	0.3130	0.3155	0.3117	0.3252	0.3163	0.3307

CCT	Center Point		3 step		5 step		Rotation Angle (°)
			Major Axis	Minor Axis	Major Axis	Minor Axis	
	X	Y	a	b	a	b	
2700K	0.4586	0.4091	0.00834	0.0042	0.0139	0.007	48.5
6000K	0.3213	0.3349	0.0074	0.0036	0.0123	0.006	72

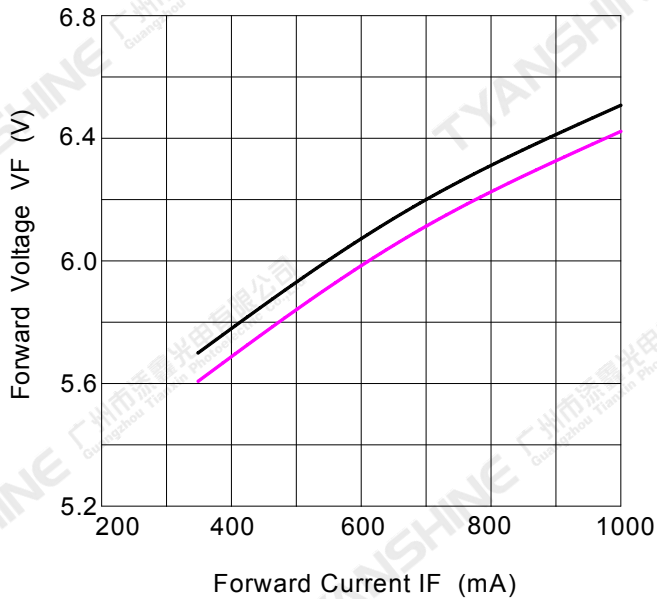
Notes:

1. chromaticity (x, y) measurements tolerance: ±0.005.

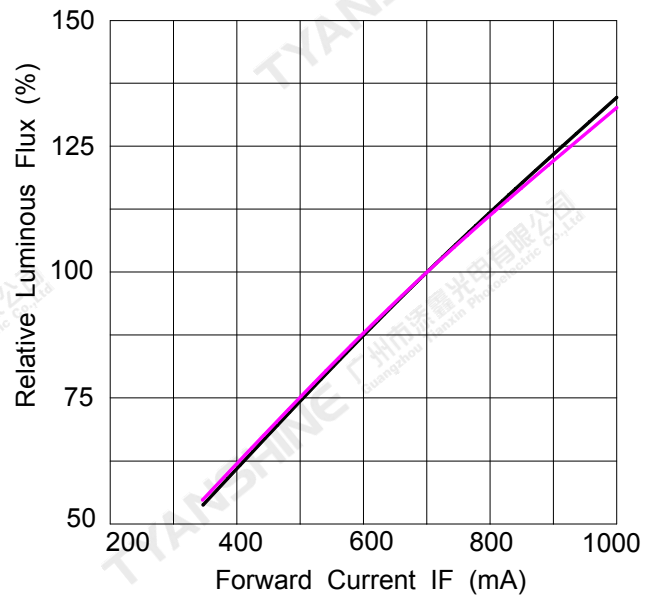
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

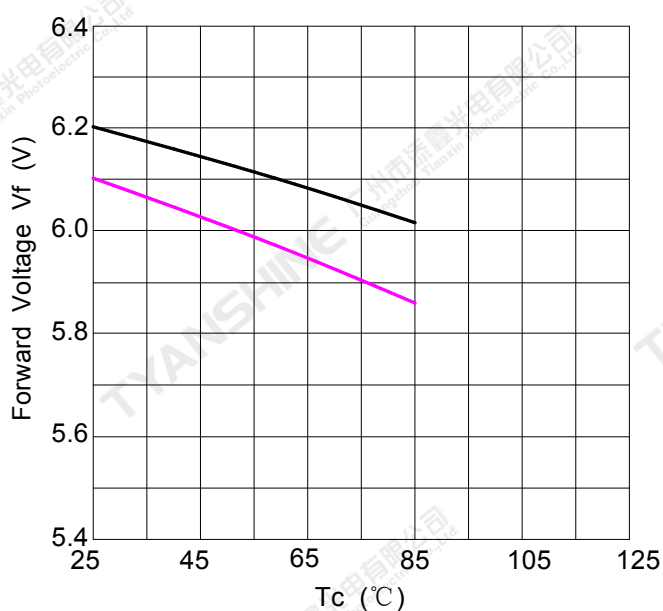
Forward Current VS. Relative Forward Voltage



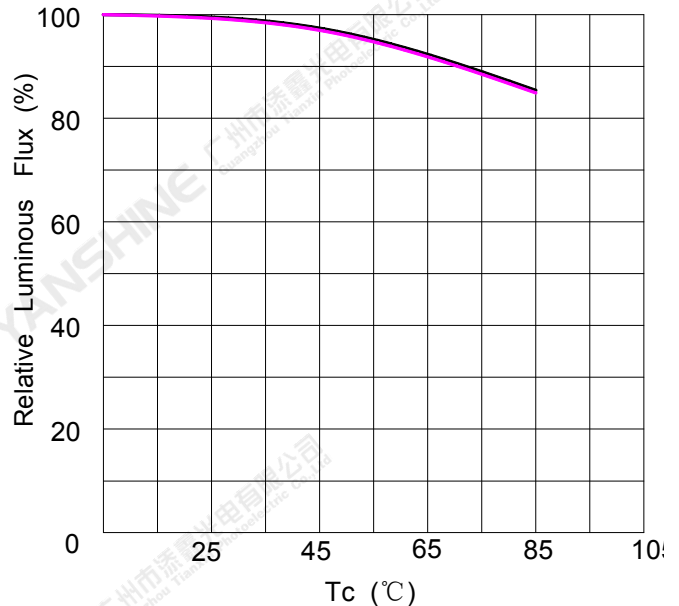
Forward Current VS. Relative Luminous Flux



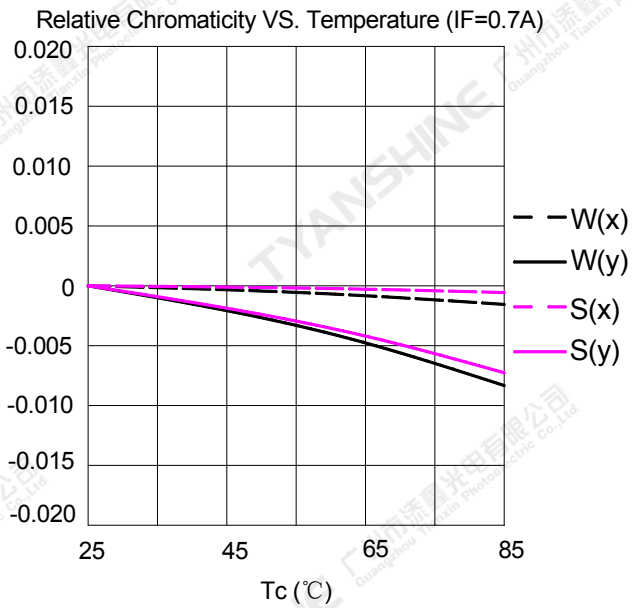
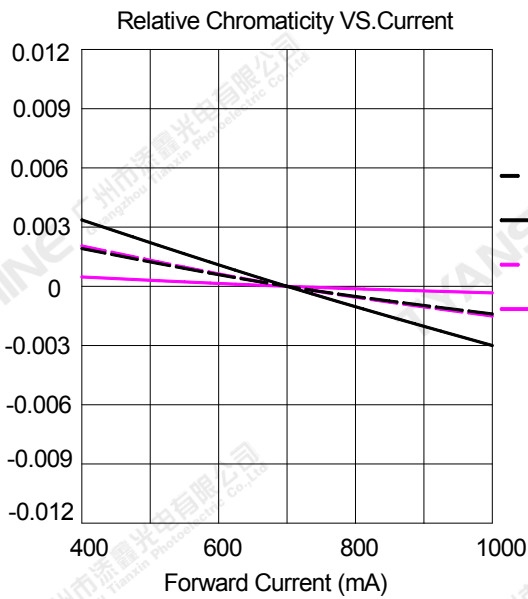
Temperature VS. Forward Voltage ($I_F=0.7A$)



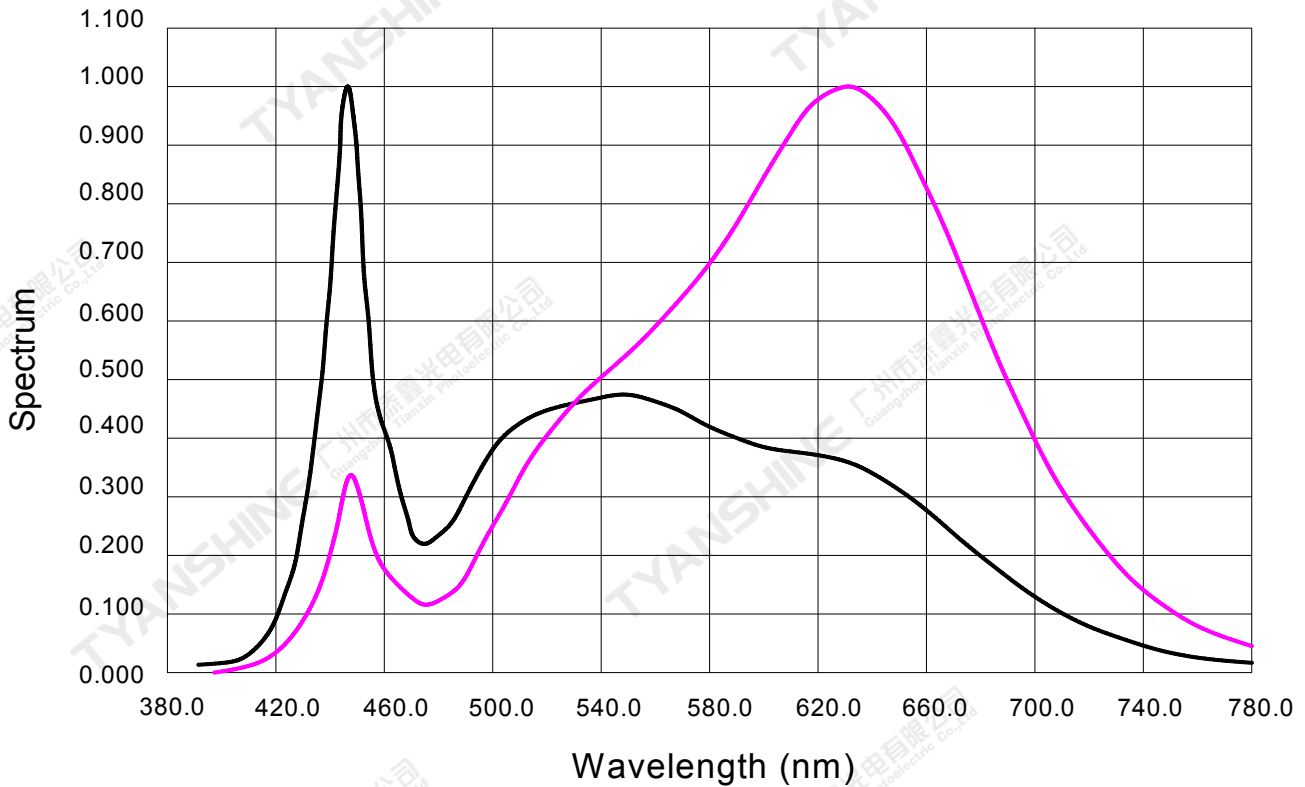
Temperature VS. Relative Luminous FLux ($I_F=0.7A$)



Notes: — White (W) ; — Warm white (S) ;



Relative Spectral Distribution



Notes: — White (W) ; — Warm white (S) ;

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

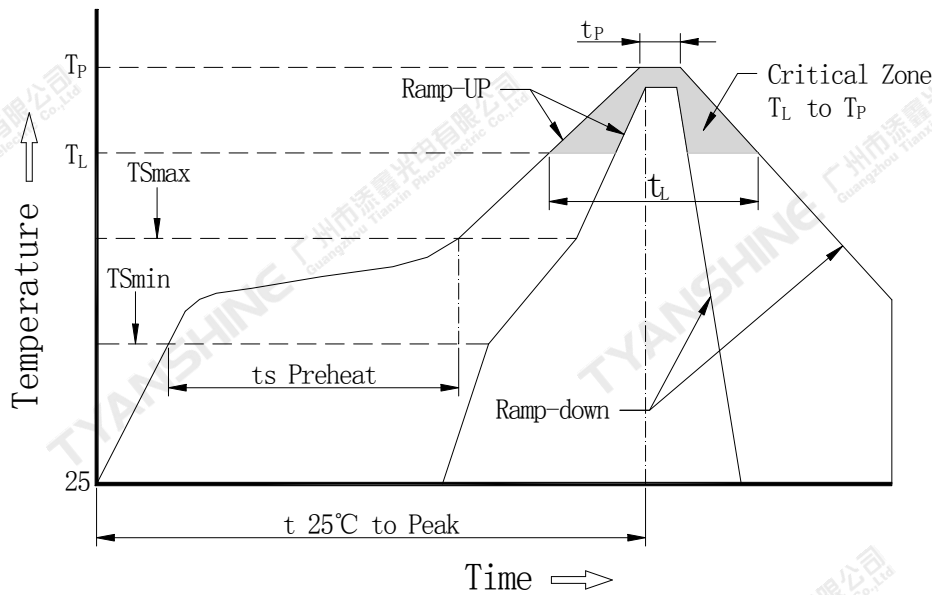
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



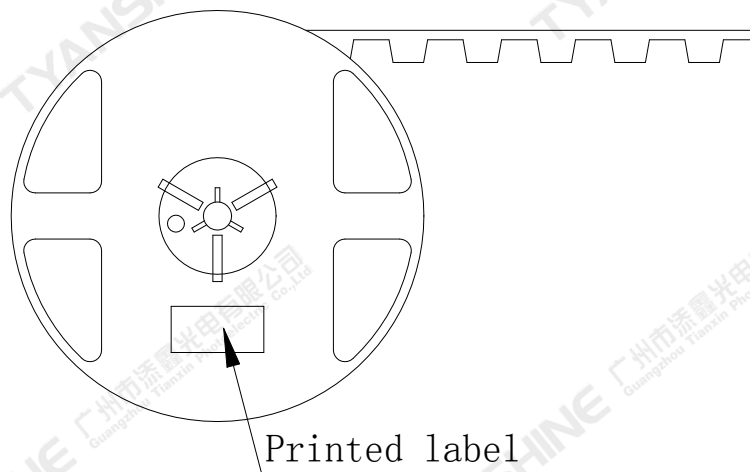
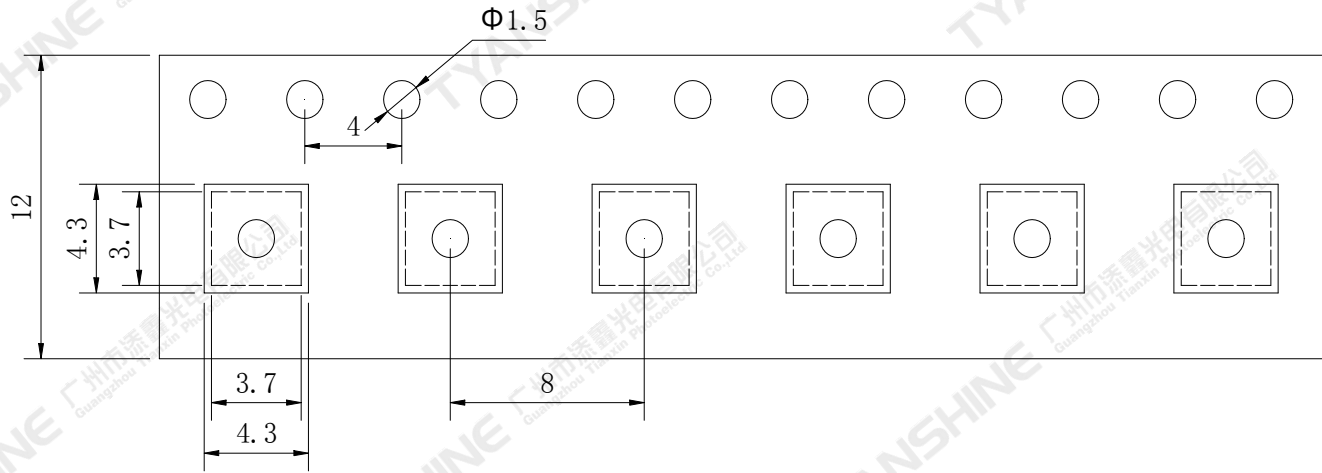
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	225°C
Time Within 5°C of Actual Peak Temperature (T_P)	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:1000 PCS



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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