

# TX-3535WS5FSB2-0G4DB-01H90

## PRODUCT SPECIFICATION

### Features:

- ◆ Excellent transiting heat from LED chip operating under 600 mA.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

### Chip Material:

- ◆ GaN
- ◆ GaN

### Emitting Color:

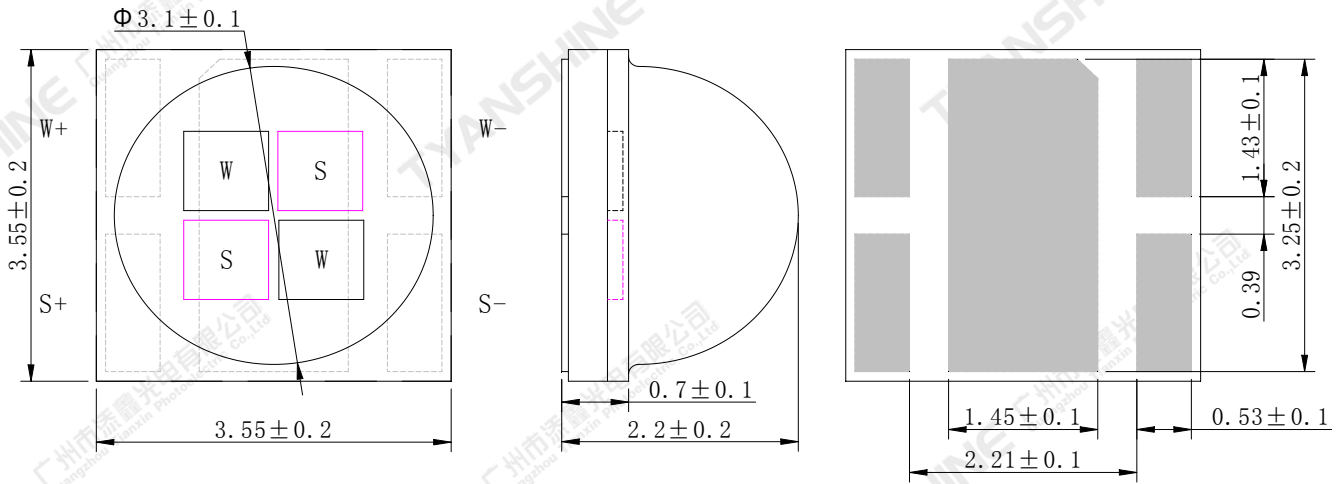
- ◆ white(W)
- ◆ Warm white(S)

### Applications:

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

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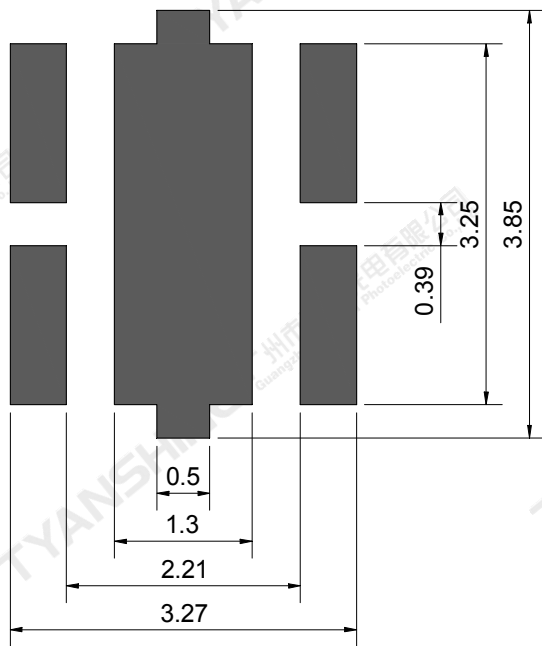
**Package Dimensions:**



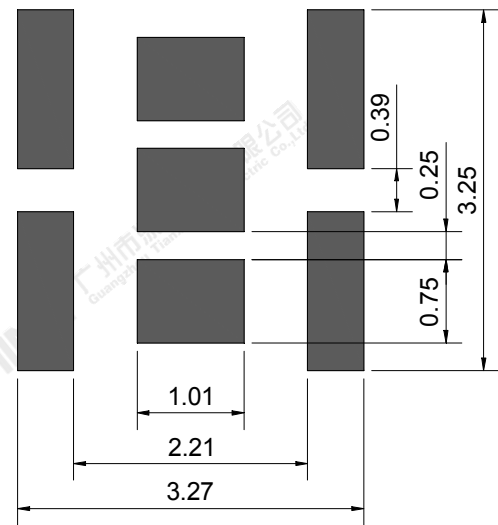
Top view

Side view

Bottom view



Recommended solder pad



Recommended stencil pattern

**Notes:**

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are  $\pm 0.1$ mm .

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**Absolute Maximum Ratings (Tc=25℃)**

Parameter	Symbol		Ratings	Unit
Forward Current	IF	W	600	mA
		S	600	
Reverse Voltage	VR		Not designed for reverse operation	V
Power Dissipation	PD	W	3660	mW
		S	3660	
Junction Temperature	Tj		150	℃
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
DC Withstand voltage test	Vw		1600	V
Storage Temperature	Tstg		-40~+70	℃
Operation Temperature	Topr		-30~+85	

**Notes:**

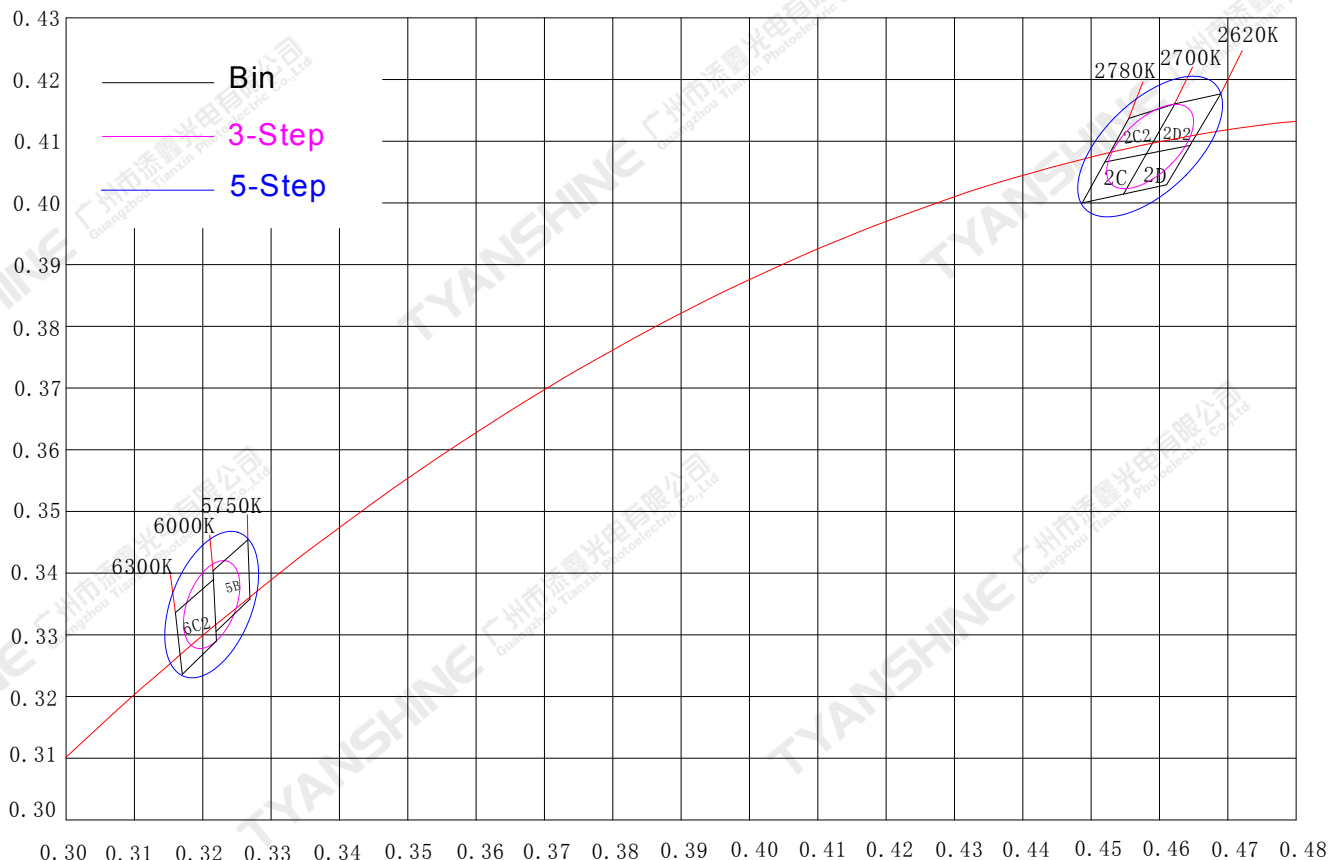
- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- Precautions for ESD:  
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
- The temperature of PCB copper foil within 3mm from the lamp bead shall not exceed 105 ℃. If the input power reaches more than 80% of the maximum input power, the temperature of copper foil within this range shall be controlled within 85 ℃.

**Electrical Optical Characteristics (Tc=25°C , IF=350mA)**

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	$\phi_v$	W	180	210	240	lm
		S	135	155	170	
Correlated Colour Temperature	CCT	W	5750	6000	6300	K
		S	2620	2700	2780	
Color Rendering Index	Ra	W	90	92.5	—	—
		S	90	92.5	—	
Forward Voltage	$V_f$	W	5.8	6.0	6.2	V
		S	5.8	6.0	6.2	
Viewing Angle at 50% IV	$2\theta_{1/2}$	W	—	120	—	Deg
		S	—	120	—	
Reverse Current	$I_R$	—	—	—	—	$\mu A$
		—	—	—	—	
Thermal Resistance Junction to Case	$R\theta_{J-C}$	W	—	5.0	—	K/W
		S	—	5.0	—	
Temperature Coefficient of Voltage	$V\Delta F/T$	W	—	-5	—	mV/°C
		S	—	-3	—	

**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°C , IF=350mA)**

Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
2D2	2620K	2700K	0.4623	0.4160	0.4690	0.4177	0.4645	0.4093	0.4581	0.4079
2D	2620K	2700K	0.4581	0.4079	0.4645	0.4093	0.4610	0.4029	0.4547	0.4014
2C2	2700K	2780K	0.4556	0.4137	0.4623	0.4160	0.4581	0.4079	0.4520	0.4066
2C	2700K	2780K	0.4520	0.4066	0.4581	0.4079	0.4547	0.4014	0.4487	0.4000
5B	5750K	6000K	0.3215	0.3404	0.3266	0.3454	0.3269	0.3358	0.3219	0.3305
6C2	6000K	6300K	0.3160	0.3336	0.3215	0.3389	0.3220	0.3290	0.3170	0.3236

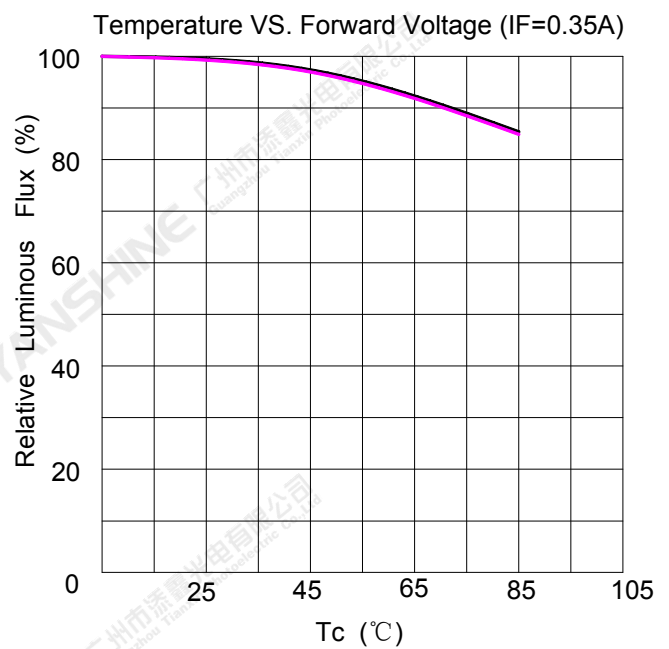
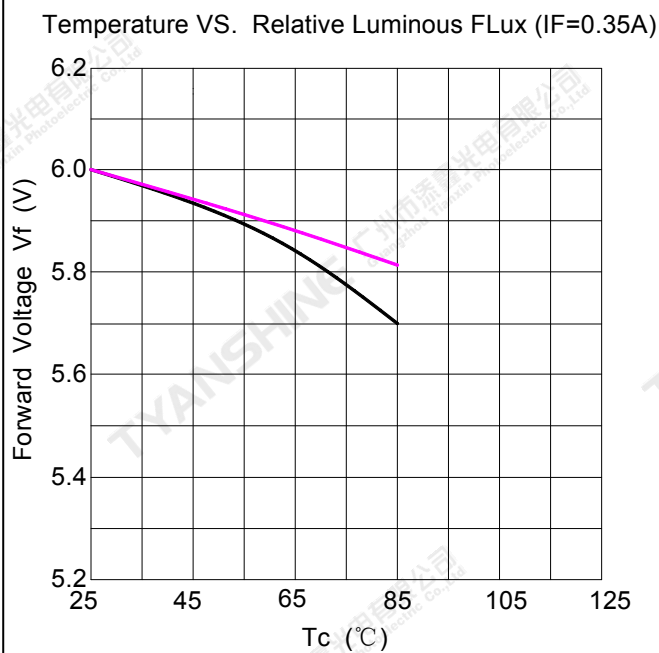
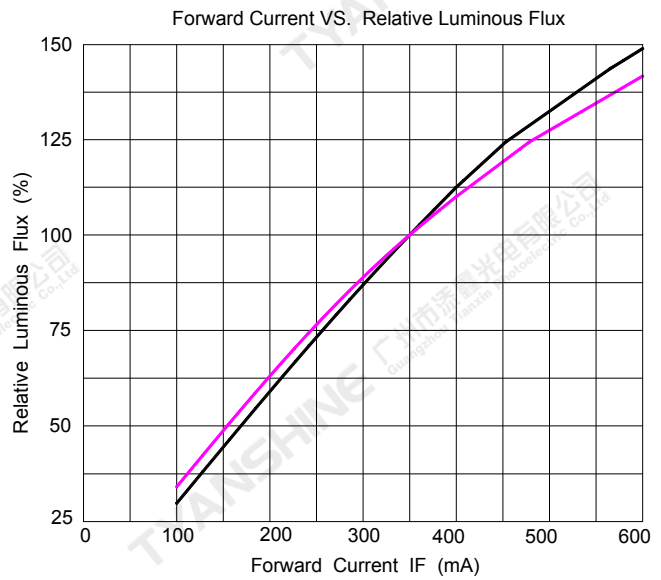
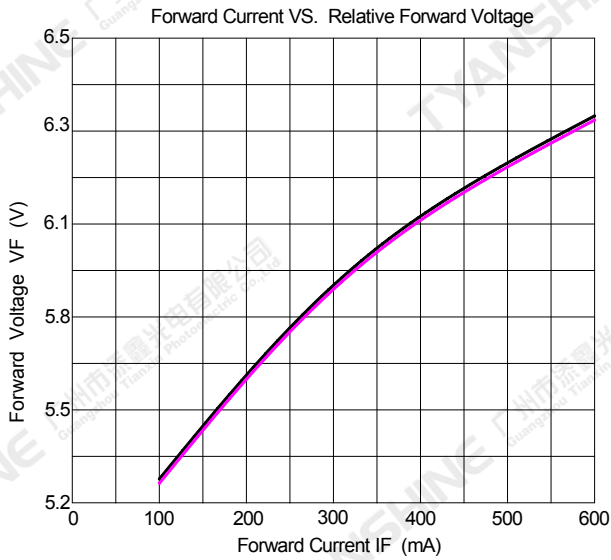
CCT	Center Point		3 step		5 step		Rotation Angle (°)
			Major Axis	Minor Axis	Major Axis	Minor Axis	
	X	Y	a	b	a	b	
2700K	0.4586	0.4091	0.00834	0.0042	0.0139	0.007	48.5
6000K	0.3213	0.3349	0.0074	0.0036	0.0123	0.006	72

**Notes:**

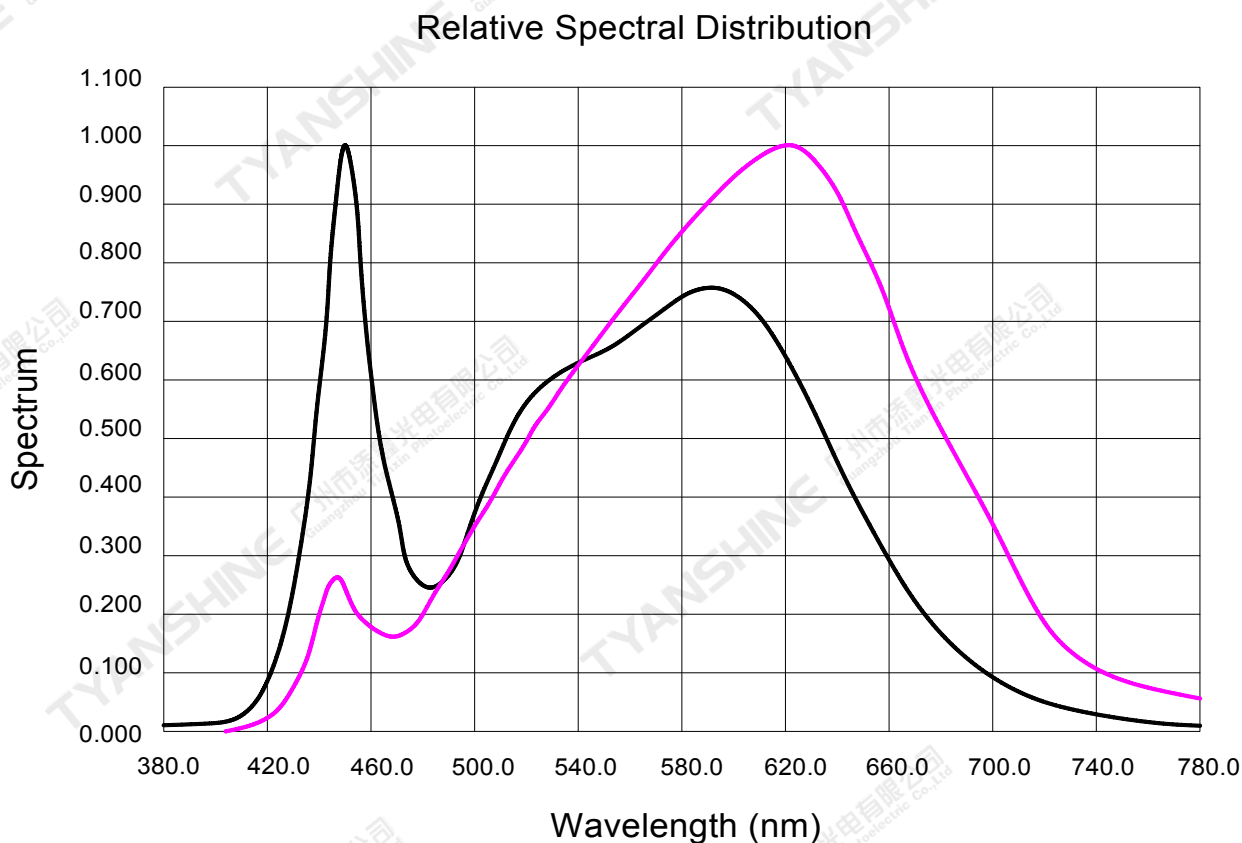
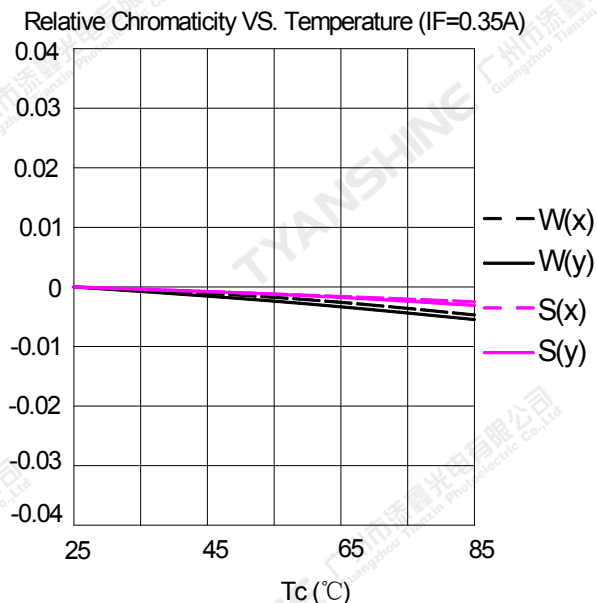
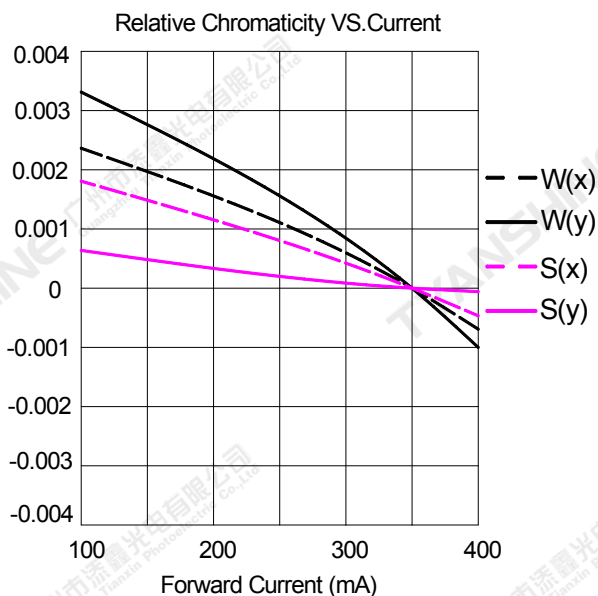
1. chromaticity (x, y) measurements tolerance: ±0.005.

# Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



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



**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

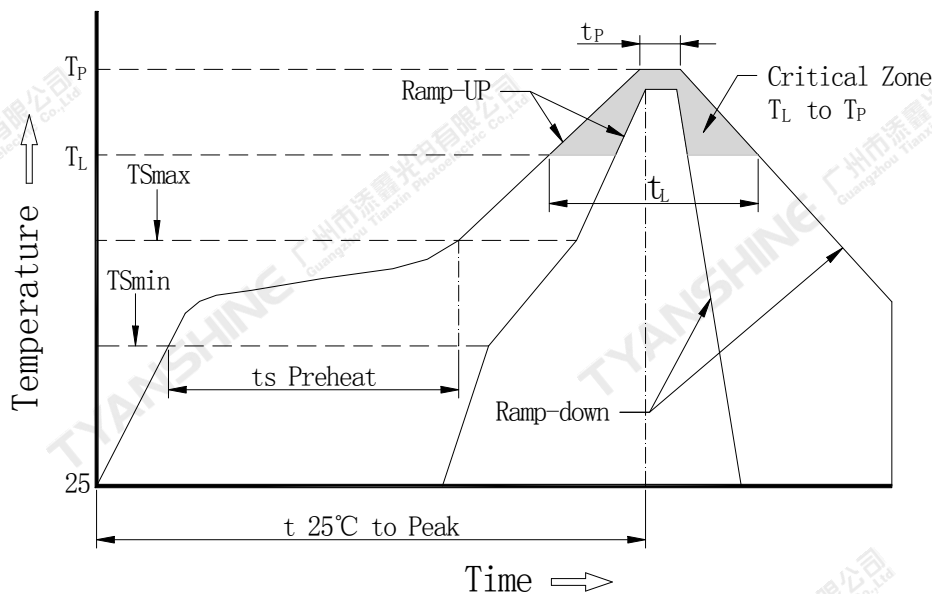
### Storage Environment Condition

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	Pb-Free Solderr(SnBi35Ag0.3)
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.

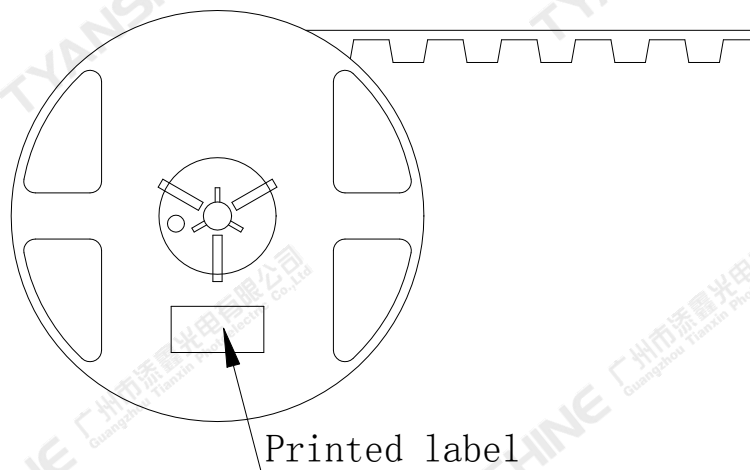
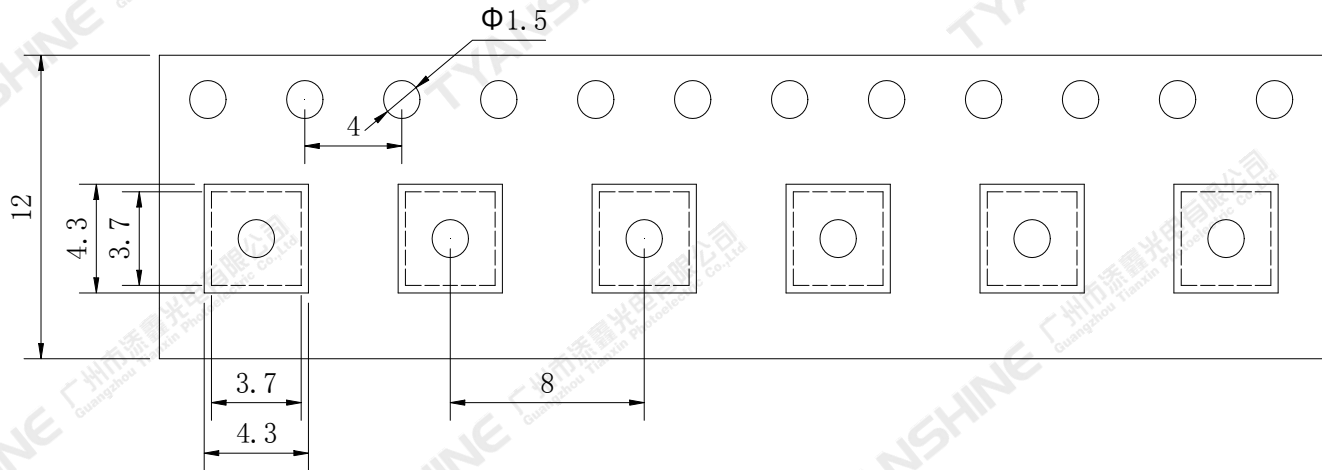
#### Note:

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



**Dimensions For Cannulation And Packaging**

**Quantity:1000 PCS**



**Notes:**

1. All dimensions are in millimeters.
2. Tolerances are  $\pm 2.0$  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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