

# TX-3535WS5FC120-OGFENW-01H80

## PRODUCT SPECIFICATION

### Features:

- ◆ Excellent transiting heat from LED chip operating under 400 mA.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

### Chip Material:

- ◆ GaN
- ◆ GaN

### Emitting Color:

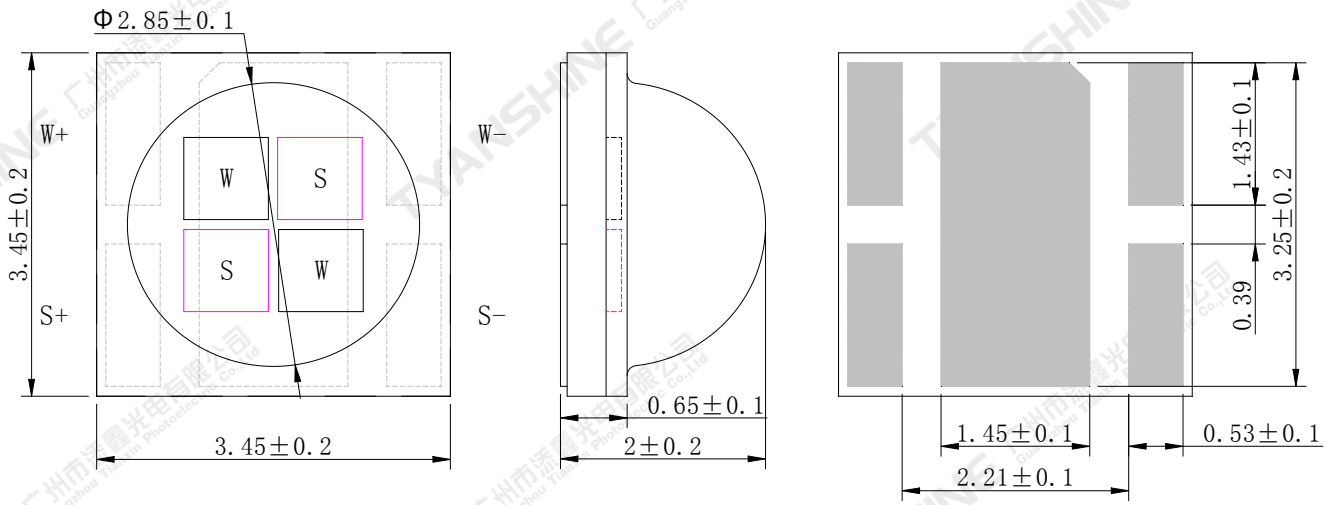
- ◆ white
- ◆ Warm white

### Applications:

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

Part No.	TX-3535WS5FC120-OGFENW-01H80	Spec No.	WKF-BE0893	Page	1 of 10
----------	------------------------------	----------	------------	------	---------

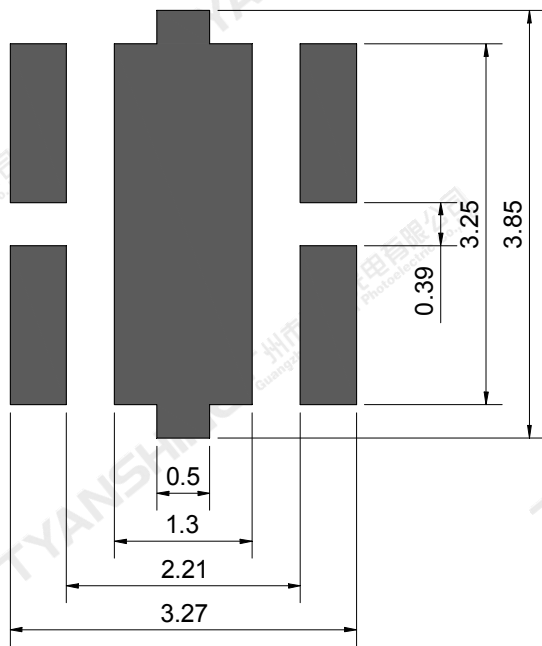
**Package Dimensions:**



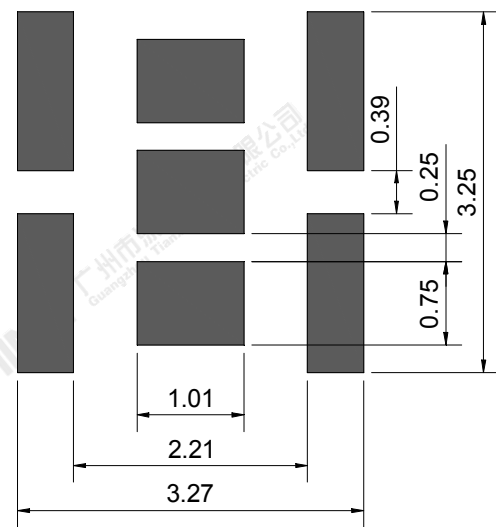
Top view

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 .

**Absolute Maximum Ratings (Tc=25°C)**

Parameter	Symbol		Ratings	Unit
Forward Current	IF	W	400	mA
		S	400	
Reverse Voltage	VR		Not designed for reverse operation	V
Power Dissipation	PD	W	3040	mW
		S	3040	
Junction Temperature	Tj		150	°C
Electrostatic Discharge Threshold (ESD)	ESD		ESD sensitive device	V
Storage Temperature	Tstg		-40~+70	°C
Operation Temperature	Topr		-30~+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	$\phi_v$	If=350mA	W	190	215	240	lm
			S	145	165	185	
Correlated Colour Temperature	CCT		W	5400	5900	6500	K
			S	2690	2850	3000	
Color Rendering Index	Ra		W	80	82.5	—	—
			S	80	82.5	—	
Forward Voltage	$V_f$		W	5.5	5.8	6.1	V
			S	5.5	5.8	6.1	
Viewing Angle at 50% IV	$2\theta_{1/2}$		W	—	120	—	Deg
			S	—	120	—	
Reverse Current	$I_R$	W	—	—	2.0	$\mu A$	
		S	—	—	2.0		
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	—	-6.0	—	mV/°C	
		S	—	-4.8	—		

**White light Color coordinate filing (IF=350mA)**

Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
2C	2690K	2780K	0.4608	0.4111	0.4539	0.4088	0.4596	0.4205	0.4670	0.4235
2B	2780K	2900K	0.4519	0.4049	0.4420	0.4006	0.4470	0.4112	0.4573	0.4157
2A	2900K	3000K	0.4420	0.4006	0.4341	0.3973	0.4394	0.4079	0.4470	0.4112
5C	5400K	5700K	0.3345	0.3418	0.3280	0.3336	0.3274	0.3497	0.3350	0.3588
5B	5700K	6100K	0.3280	0.3327	0.3206	0.3238	0.3192	0.3388	0.3274	0.3487
6C	6100K	6500K	0.3208	0.3220	0.3146	0.3145	0.3125	0.3293	0.3194	0.3373

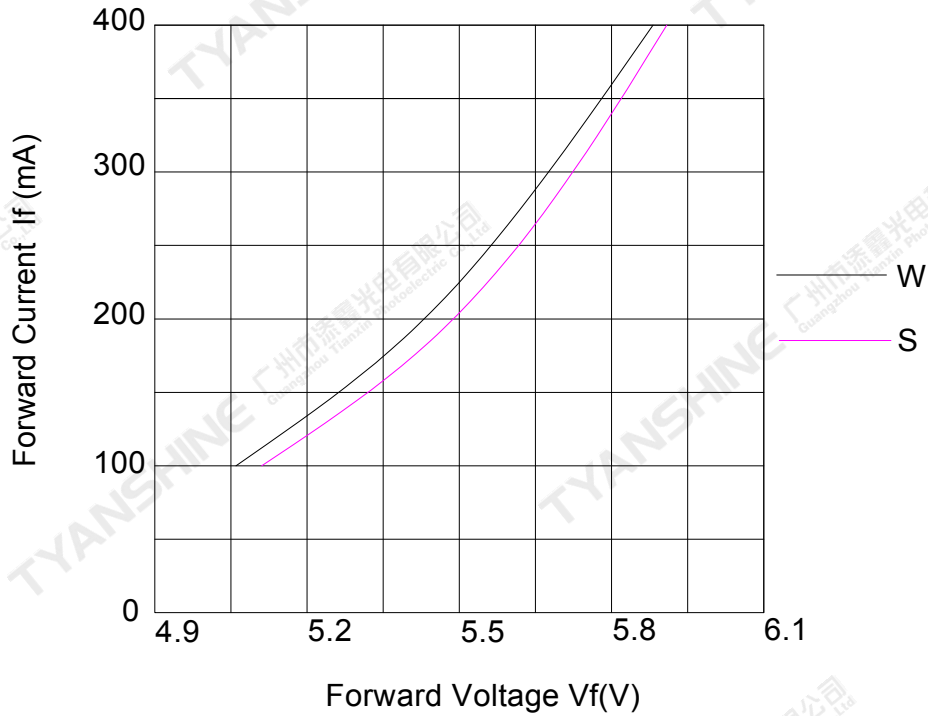
**Notes:**

- 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: $\pm 0.15V$ .

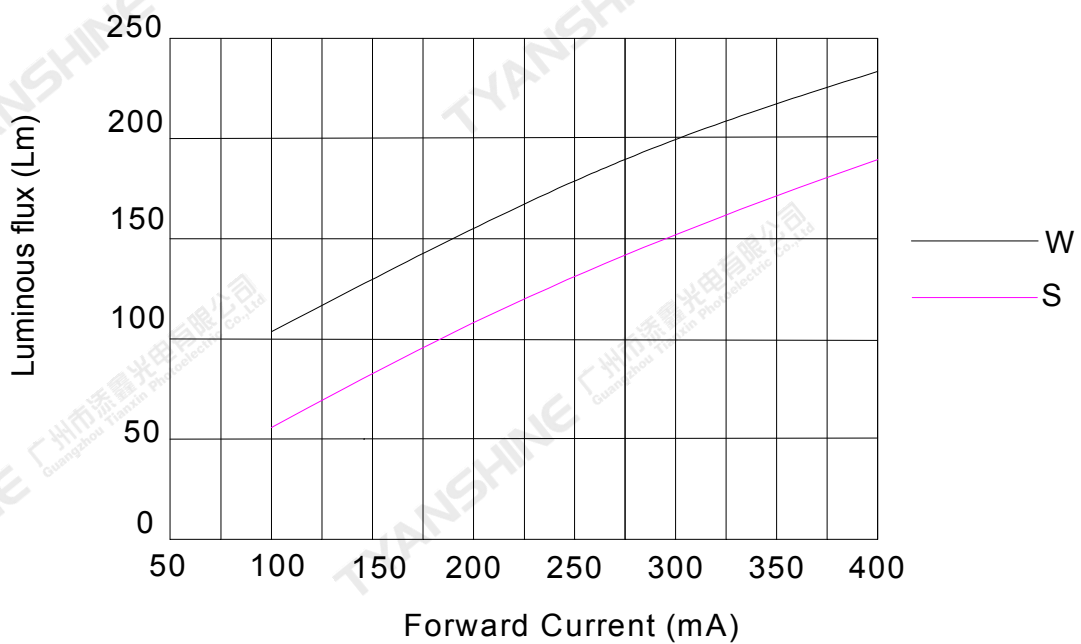
**Typical Electrical/Optical Characteristics Curves**

(25°C Ambient Temperature Unless Otherwise Noted)

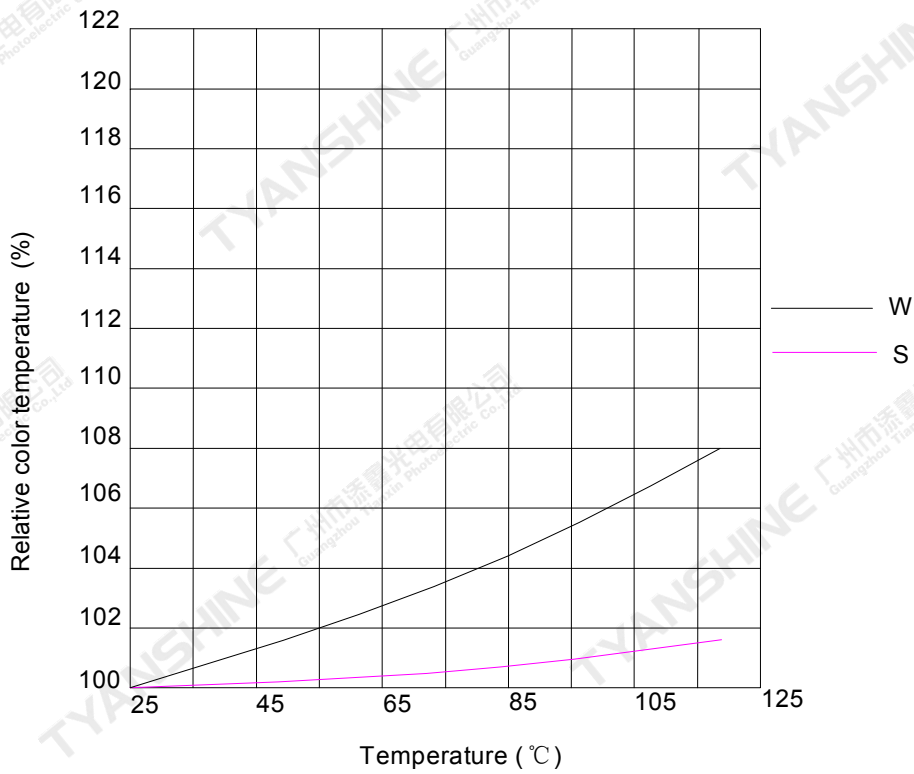
Forward Current VS. Forward Voltage



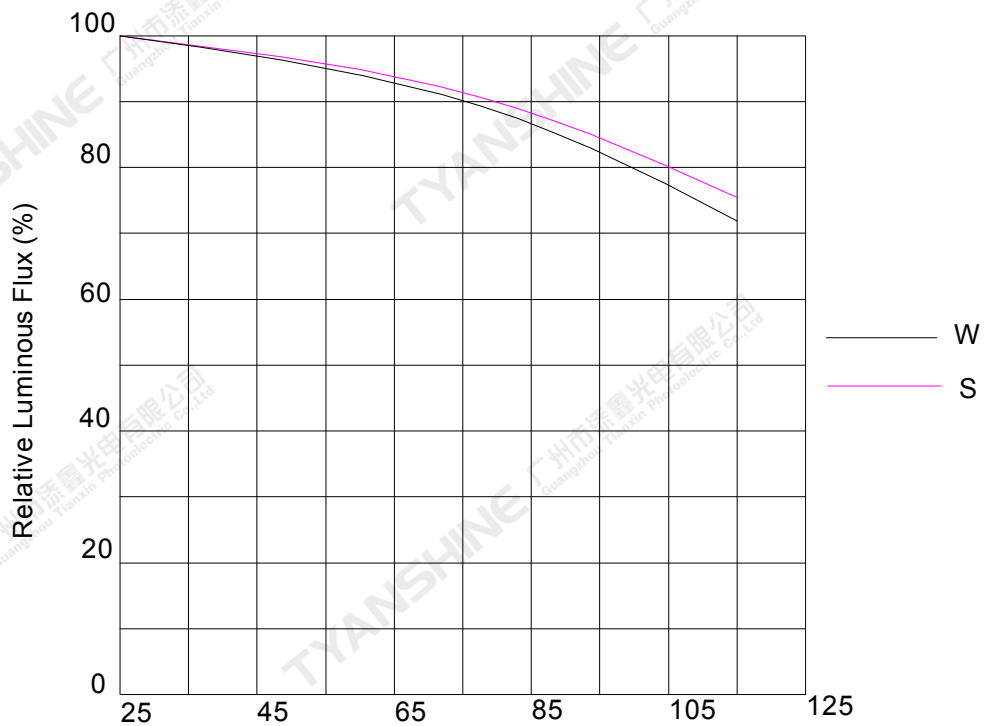
Forward Current VS. Luminous flux

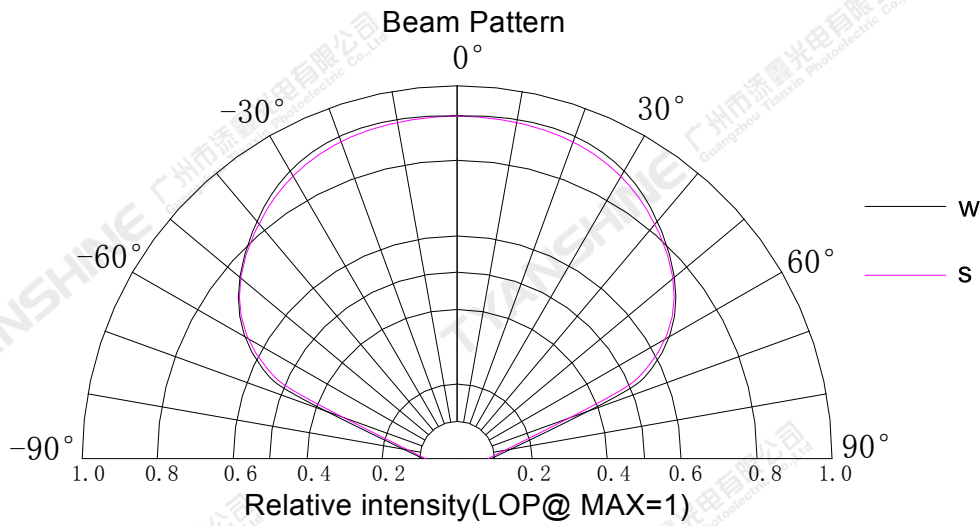
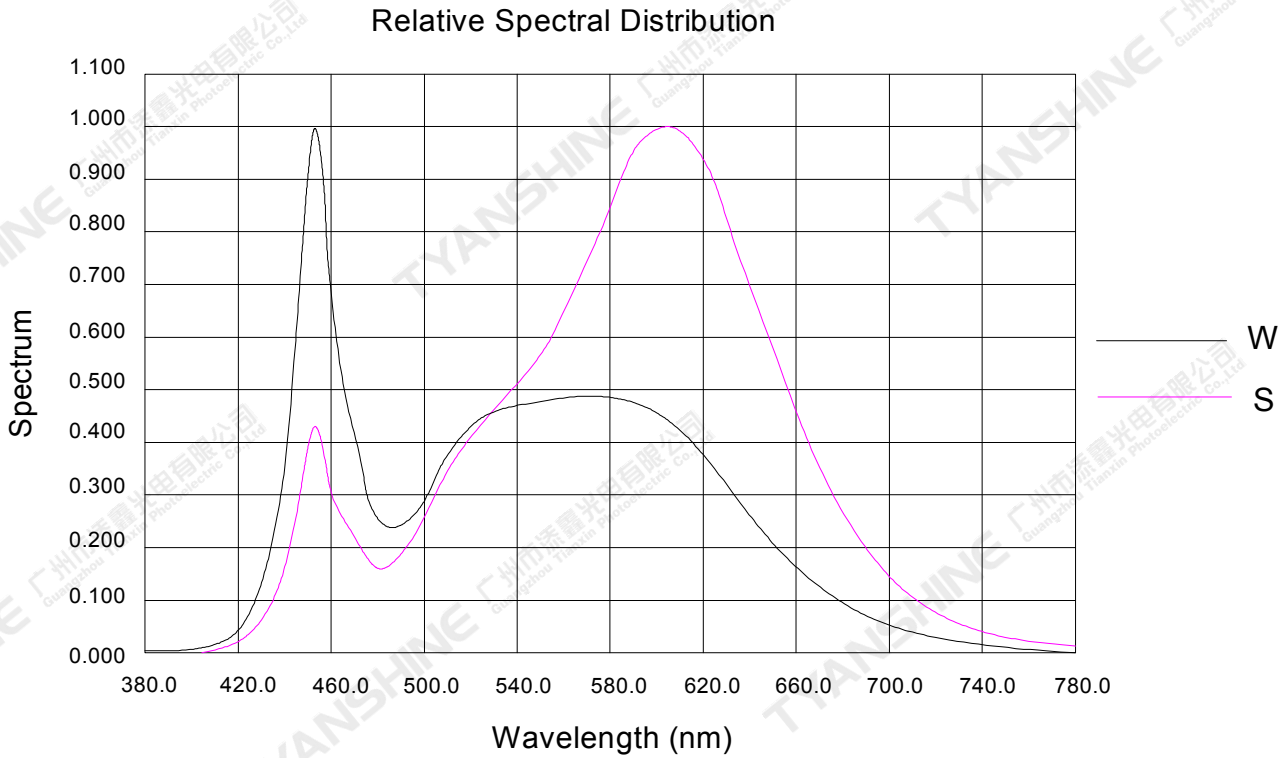


Temperature VS. Relative color temperature (IF=350mA)



Temperature VS. Relative Luminous Flux (IF=350mA)





**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  $\pm 5^\circ$ .

Part No.	TX-3535WS5FC120-OGFENW-01H80	Spec No.	WKF-BE0893	Page 8 of 10
----------	------------------------------	----------	------------	--------------



## Usage Precautions

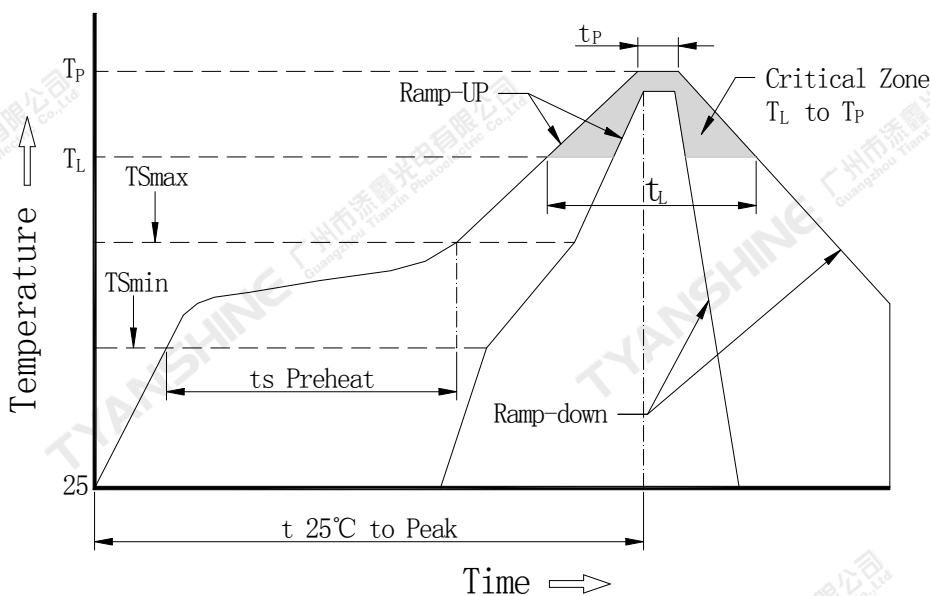
### Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

### Soldering Condition

Use the conditions shown to the under figure.



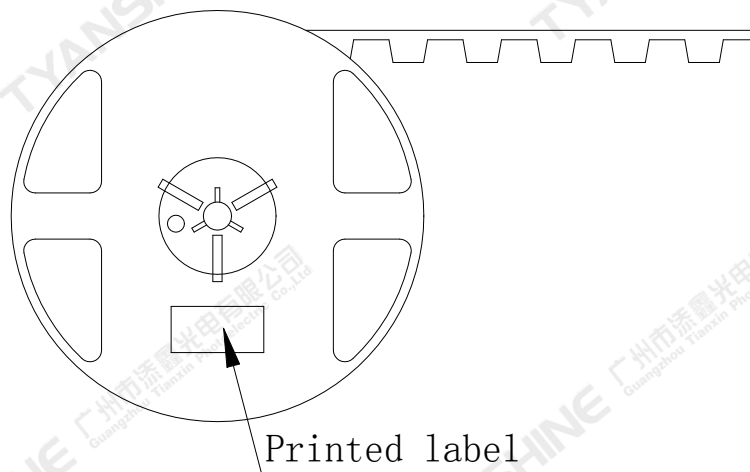
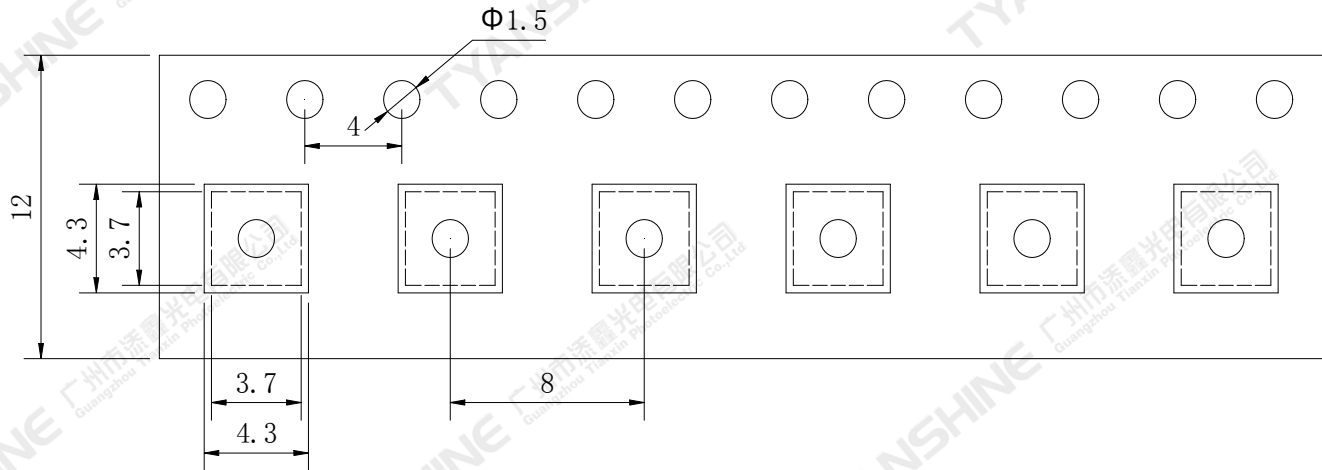
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (TS <sub>max</sub> to TP)	3°C/second max.
Preheat: Temperature Min (TS <sub>min</sub> )	100°C
Preheat: Temperature Max (TS <sub>max</sub> )	150°C
Preheat: Time (TS <sub>min</sub> to TS <sub>max</sub> )	60-120 seconds
Time Maintained Above: Temperature (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.

Part No.	TX-3535WS5FC120-OGFENW-01H80	Spec No.	WKF-BE0893	Page	10 of 10
----------	------------------------------	----------	------------	------	----------