

# TX-5050W12FC100-NUVCNG-B01

## PRODUCT SPECIFICATION

**Features:**

- ◆ Excellent transiting heat from LED chip operating under 1.0A.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

**Chip Material:**

- ◆ ThinGaN

**Emitting Color:**

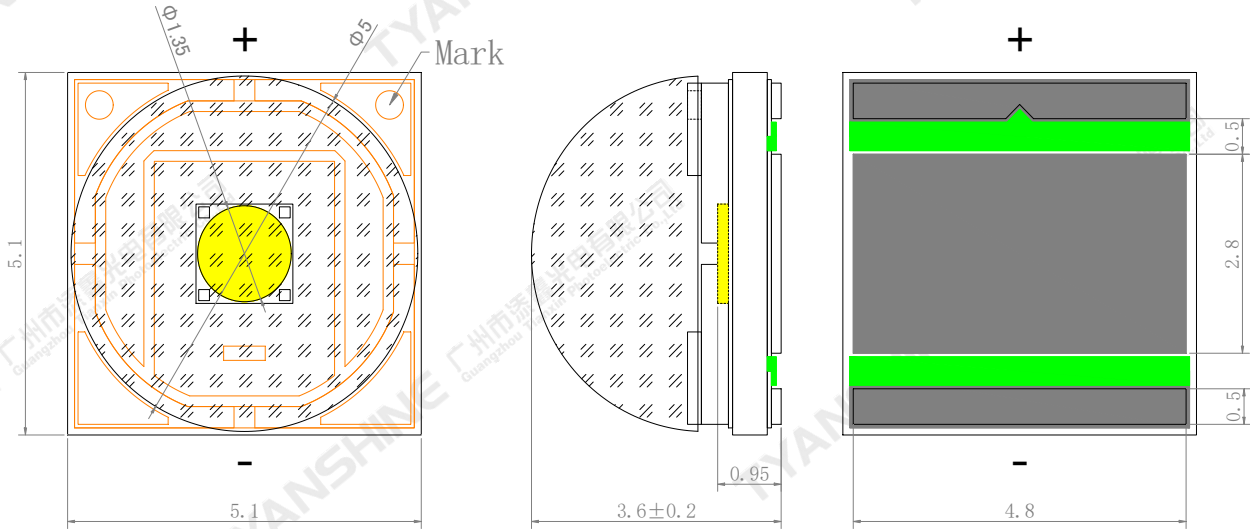
- ◆ White (W)

**Applications:**

- ◆ Auxilliary lighting
- ◆ Ambient lighting
- ◆ Architectural lighting

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**Package Dimensions:**



**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°C)**

Parameter	Symbol	Ratings	Unit
Forward Current	IF	4.0	A
Reverse Voltage	VR	Not designed for reverse operation	V
Power Dissipation	PD	12	W
Junction Temperature	Tj	130	°C
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Storage Temperature	Tstg	-20~+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.

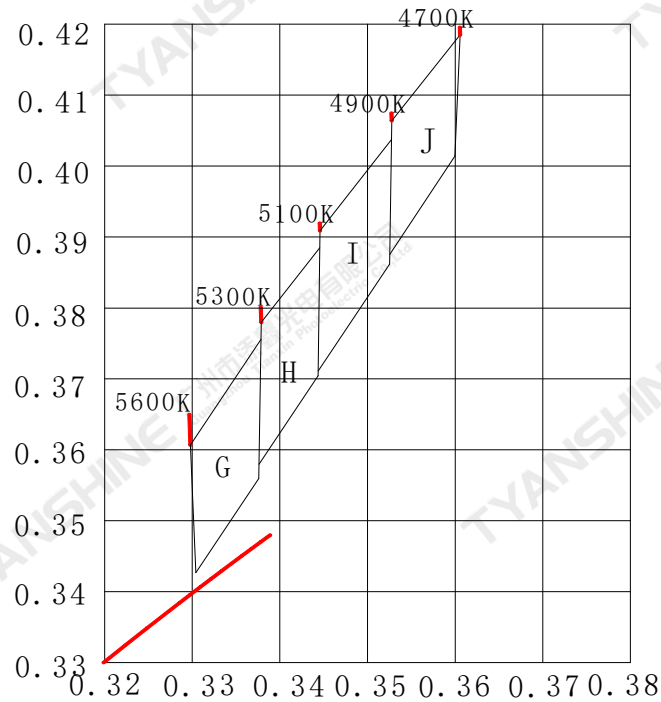
**Electrical Optical Characteristics (Tc=25°C)**

Parameter	Symbol	Condition	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	$\Phi_v$	If=1.0A	W	350	400	450	lm
		If=4.0A	W	950	1050	1150	
Forward Voltage	$V_f$	If=1.0A	W	2.8	—	3.6	V
		If=4.0A	W	3.6	—	4.3	
Viewing Angle at 50% IV	$2\theta_{1/2}$	—	W	—	100	—	Deg
Correlated Colour Temperature	CCT	If=1.0A	W	4900	—	5600	K
		If=4.0A	W	5400	—	6200	
Reverse Current	$I_R$	—	W	—	—	—	$\mu A$
Temperature Coefficient of Voltage	$V\Delta F/T$	If=1.0A	W	—	-3.58	—	mV/°C
		If=4.0A	W	—	-2.53	—	

**Notes:**

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

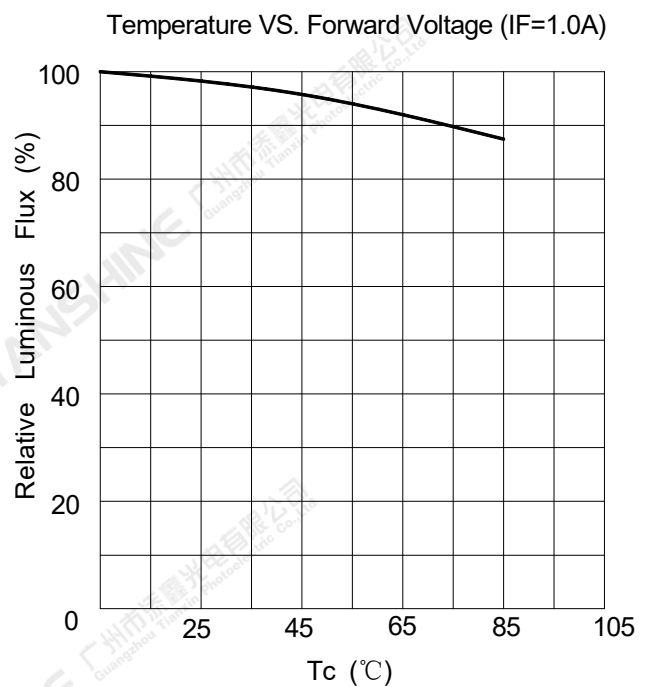
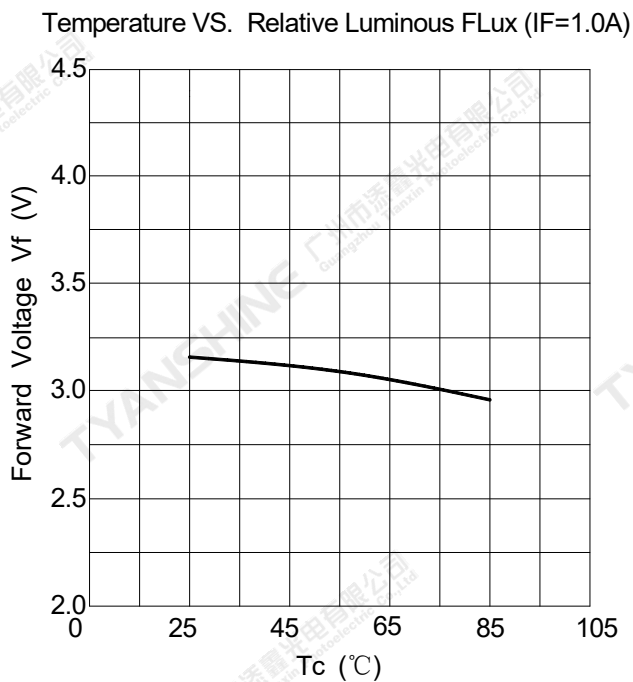
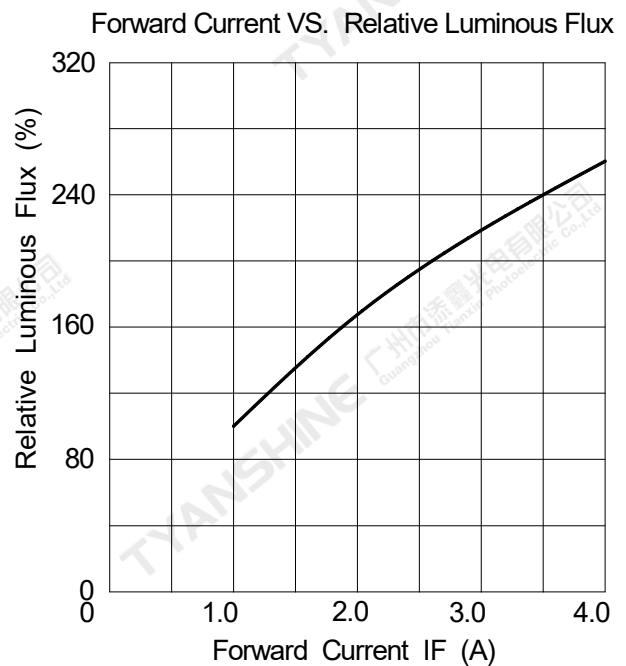
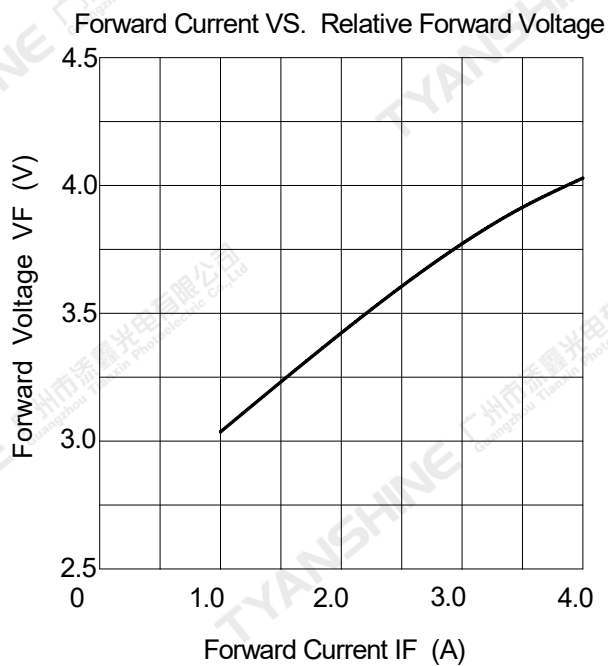
**White light Color coordinate filing (IF=1.0A, Tc=25°C )**

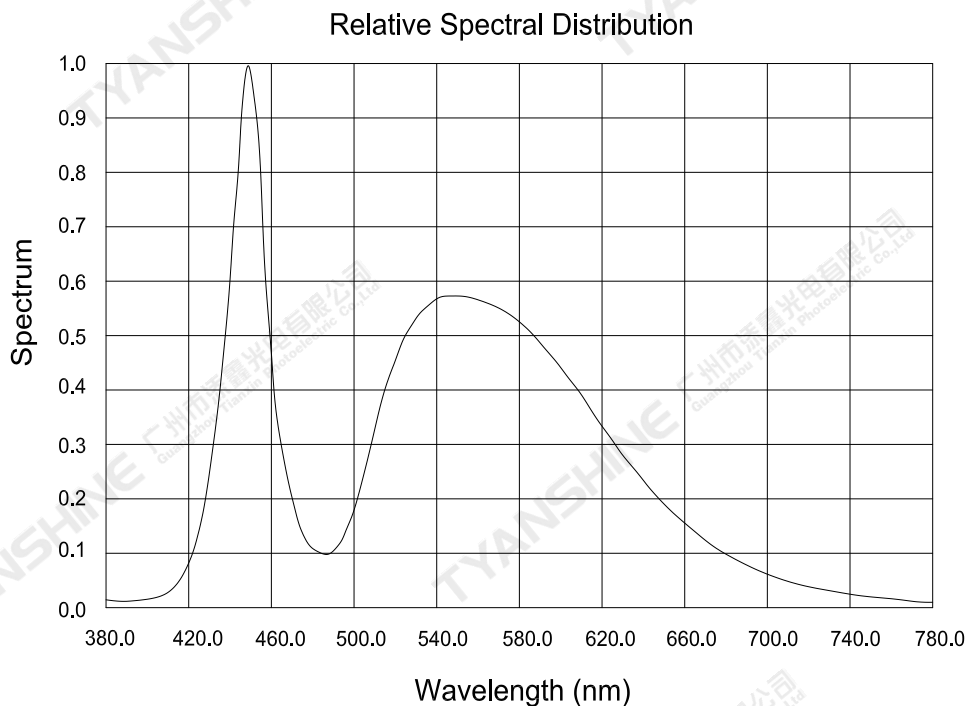
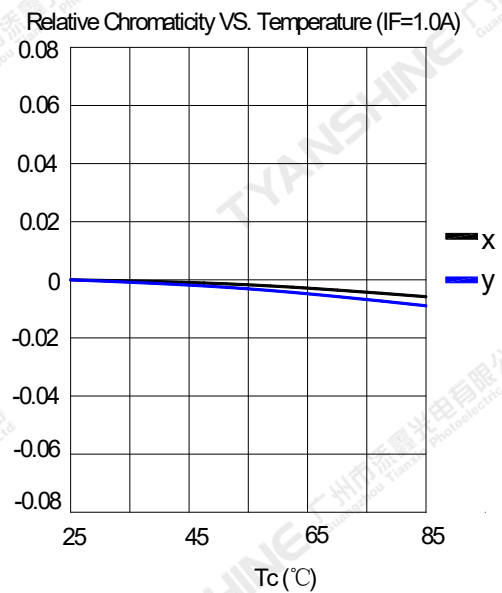
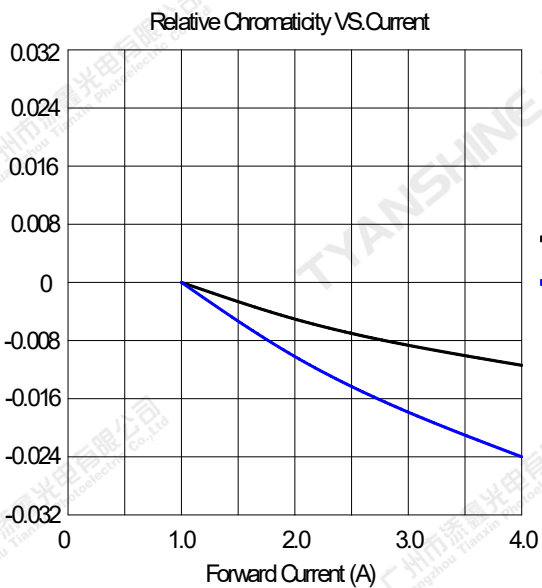


Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
J	4700K	4900K	0.3600	0.4014	0.3606	0.4185	0.3528	0.4064	0.3526	0.3875
I	4900K	5100K	0.3525	0.3862	0.3528	0.4037	0.3446	0.3909	0.3444	0.3711
H	5100K	5300K	0.3444	0.3704	0.3446	0.3885	0.3379	0.3780	0.3376	0.3580
G	5300K	5600K	0.3376	0.3559	0.3379	0.3756	0.3298	0.3607	0.3304	0.3427

## 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

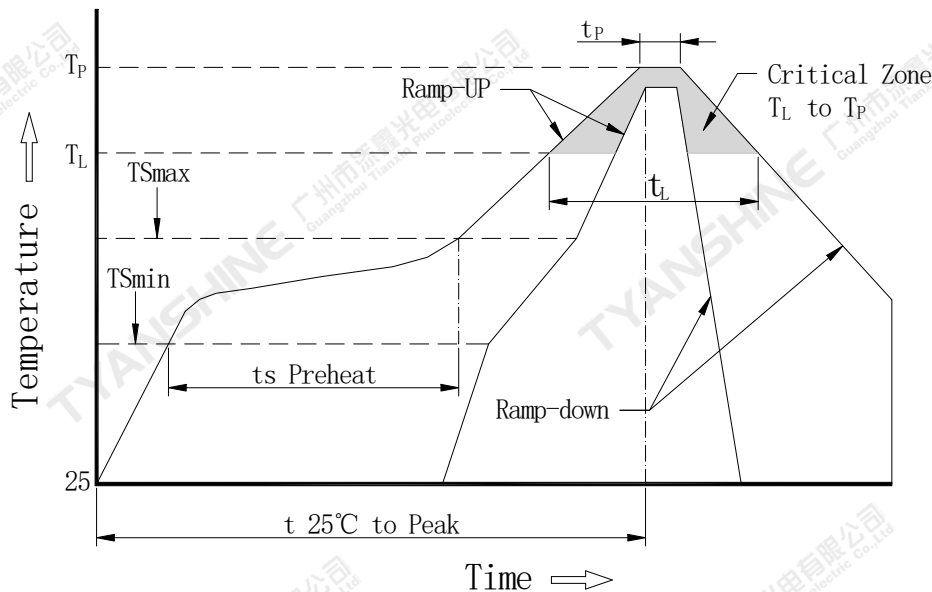
### Storage Environment Condition

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	Pb-Free Solder(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.

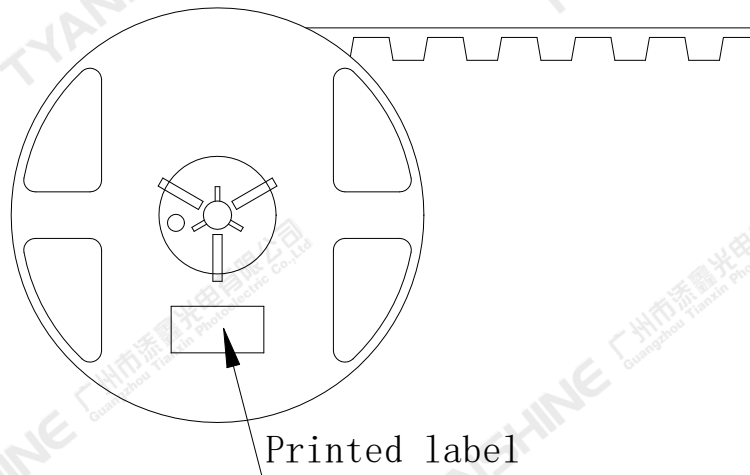
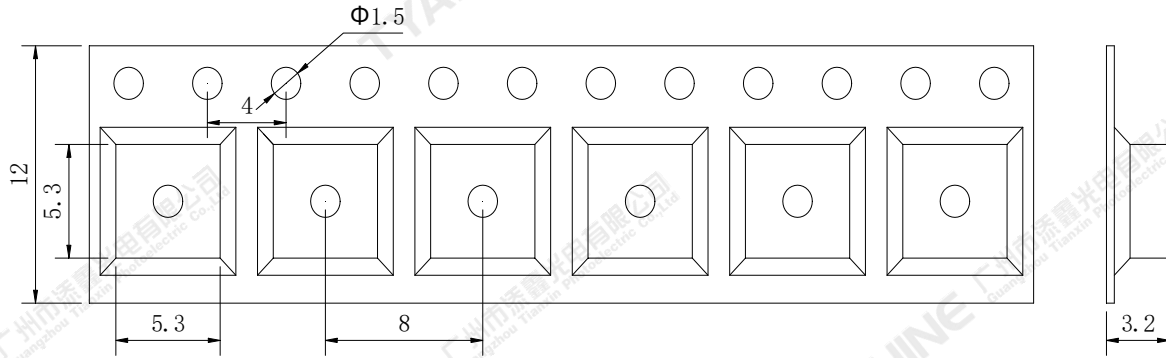
**Note:**

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



**Dimensions For Cannulation And Packaging**

**Quantity:1000PCS**



**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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