

TX-5050W15FC120-NGVEND34-D03

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 4.0A.
- ◆High luminous output.
- ◆No UV.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ThinGaN

Emitting Color:

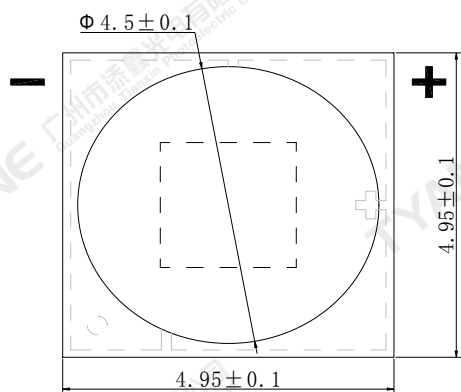
- ◆White(W)

Applications:

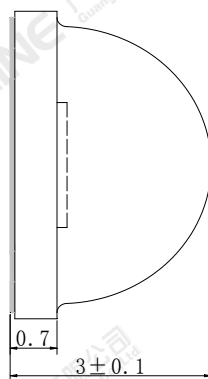
- ◆Auxiliary lighting
- ◆Ambient lighting
- ◆Architectural lighting

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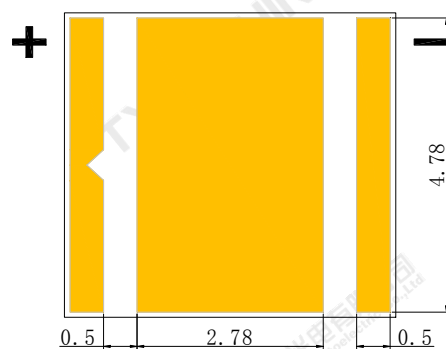
Package Dimensions:



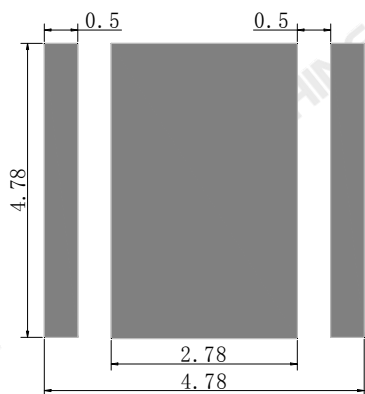
Top view



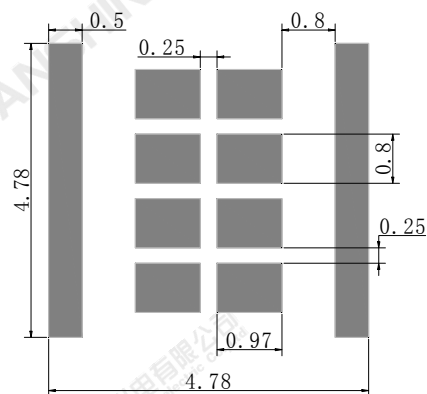
Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

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

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol	Ratings	Unit
Forward Current	IF	4.0	A
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	15	W
Junction Temperature	T _j	150	℃
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Storage Temperature	T _{stg}	-40~+70	℃
Operation Temperature	T _{opr}	-30~+85	

Notes:

1.Specifications are subject to change without notice.

2.The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.

3.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.

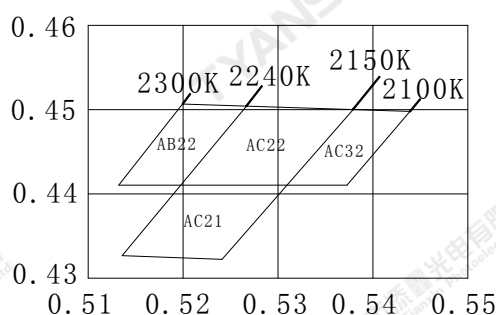
Electrical Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	Φ_v	If=0.7A	W	240	280	—	lm
		If=4.0A	W	880	950	—	
Forward Voltage	V_f	If=0.7A	W	2.8	3.0	3.4	V
		If=4.0A	W	3.4	3.6	4.0	
Correlated Colour Temperature	CCT	If=0.7A	W	2100	2200	2300	K
		If=4.0A	W	2050	2250	2400	
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	W	—	120	—	Deg
Reverse Current	I_R		W	—	—	—	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	If=0.7A	W	—	3.4	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$		W	—	-2.1	—	mV/°C

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

White light Color coordinate filing (Tc=25°C, IF=0.7A)

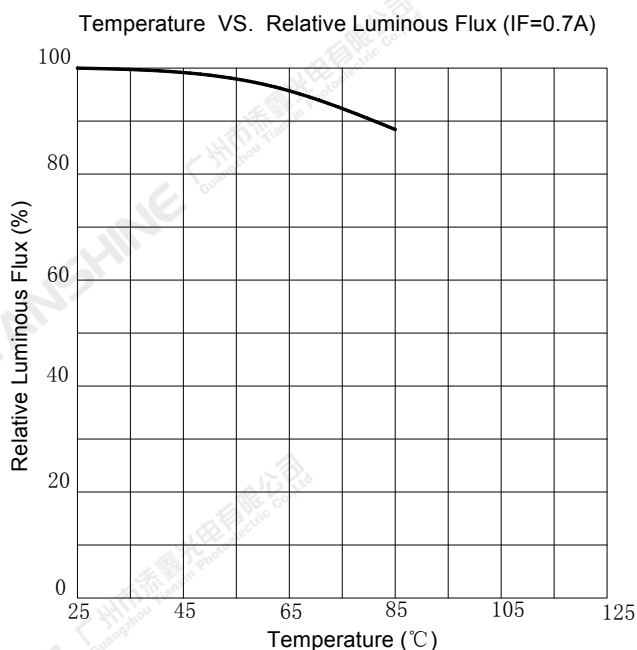
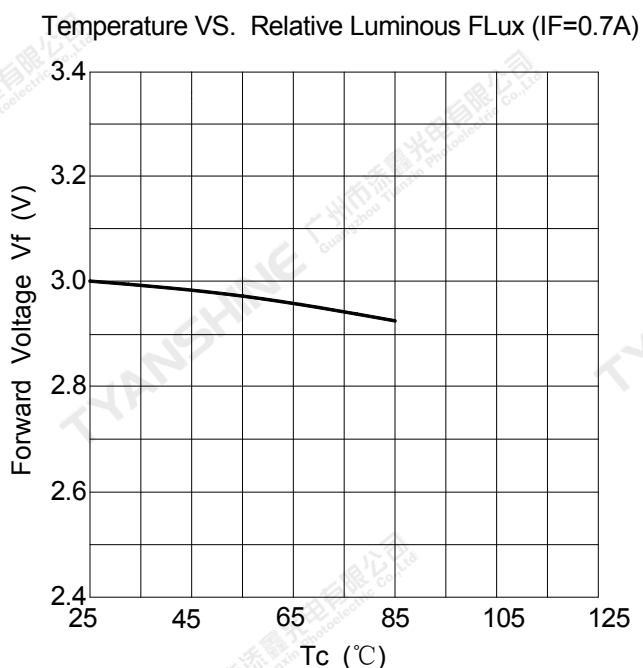
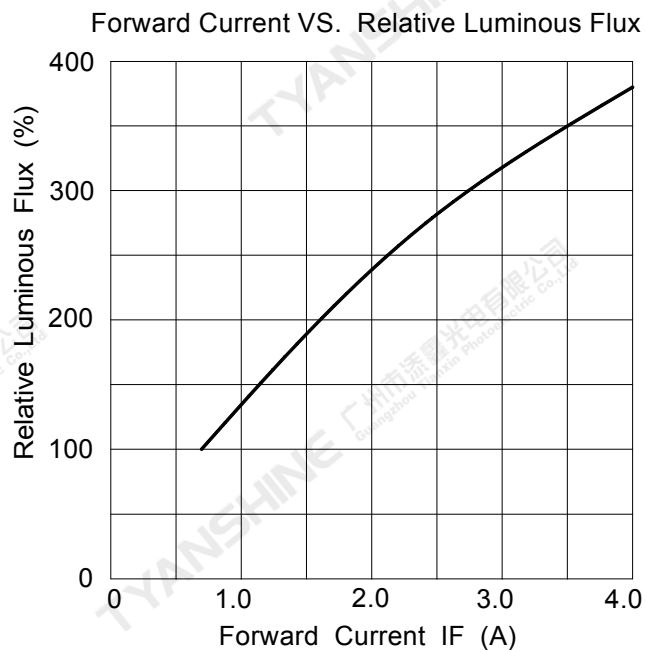
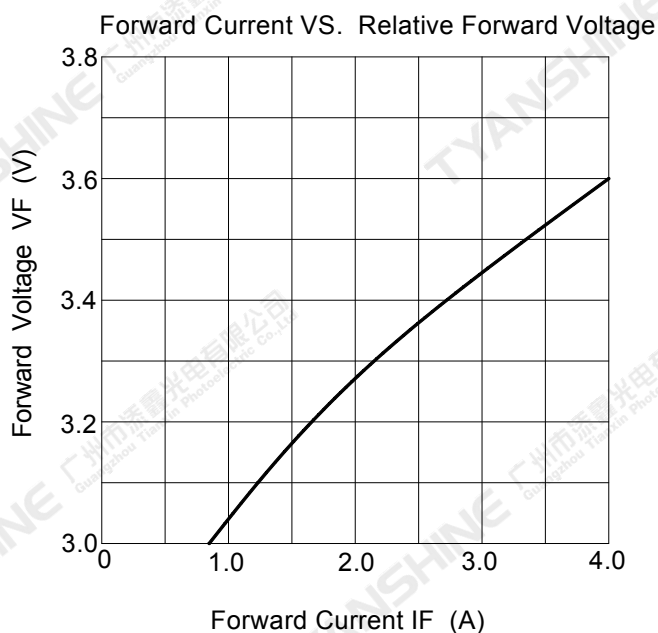


Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
AC32	2100K	2150K	0.5373	0.4410	0.5309	0.4410	0.5379	0.4500	0.5439	0.4498
AC21	2150K	2240K	0.5241	0.4322	0.5136	0.4327	0.5198	0.4410	0.5309	0.4410
AC22			0.5309	0.4410	0.5198	0.4410	0.5267	0.4504	0.4500	0.5439
AB21	2240K	2300K	0.5198	0.4410	0.5132	0.4410	0.5199	0.4507	0.5267	0.4504

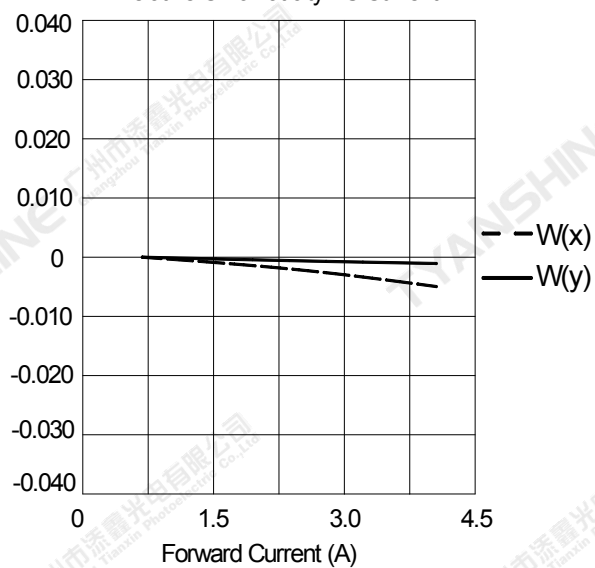
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Typical Electrical/Optical Characteristics Curves

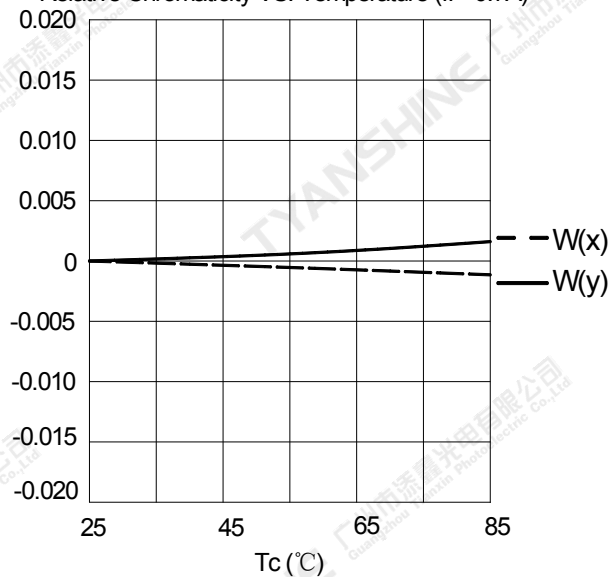
(25°C Ambient Temperature Unless Otherwise Noted)

**Notes:** — White (W) ;

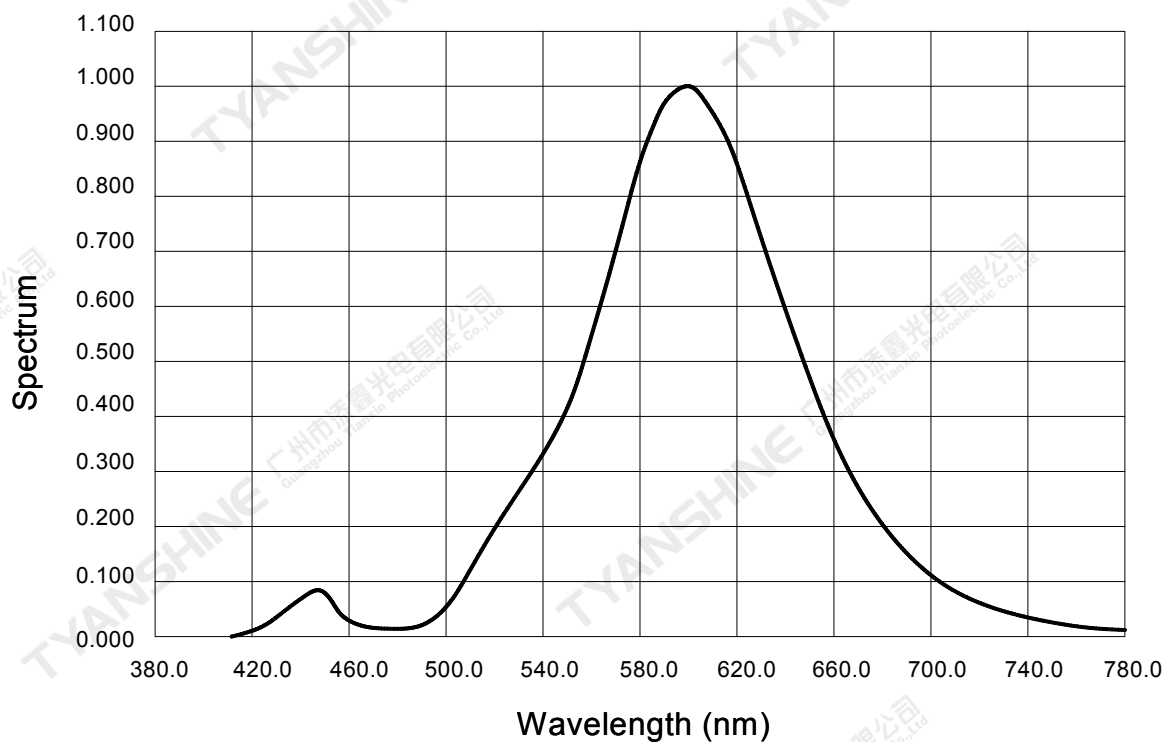
Relative Chromaticity VS. Current



Relative Chromaticity VS. Temperature (IF=0.7A)



Relative Spectral Distribution



Notes: — White (W) ;

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 $\pm 5^\circ$.

Usage Precautions

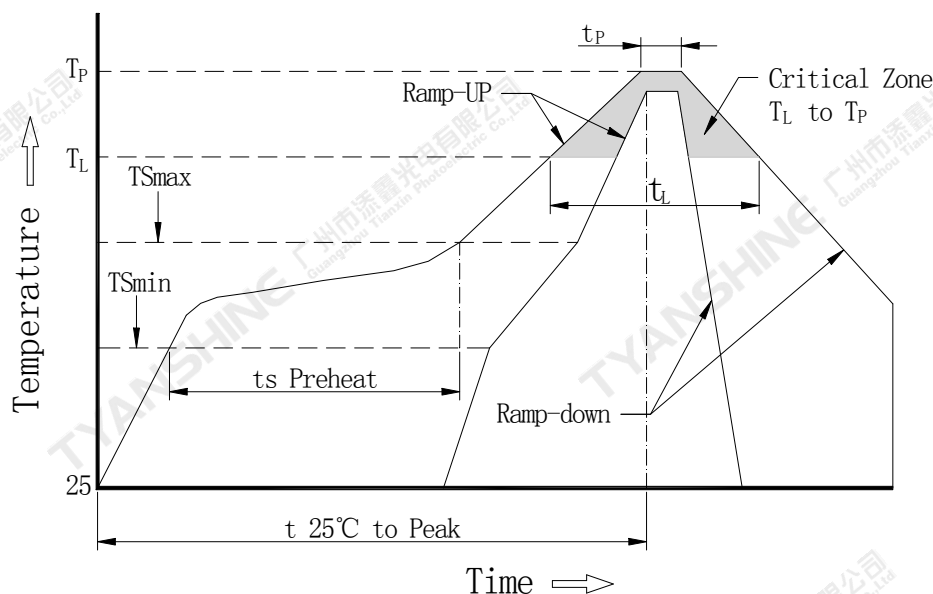
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



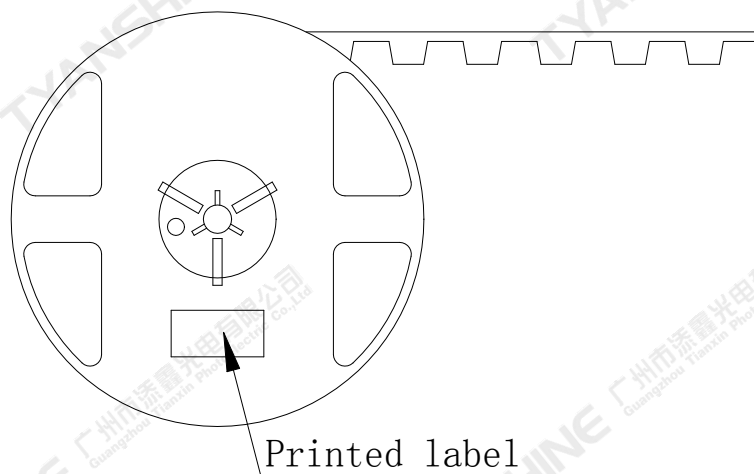
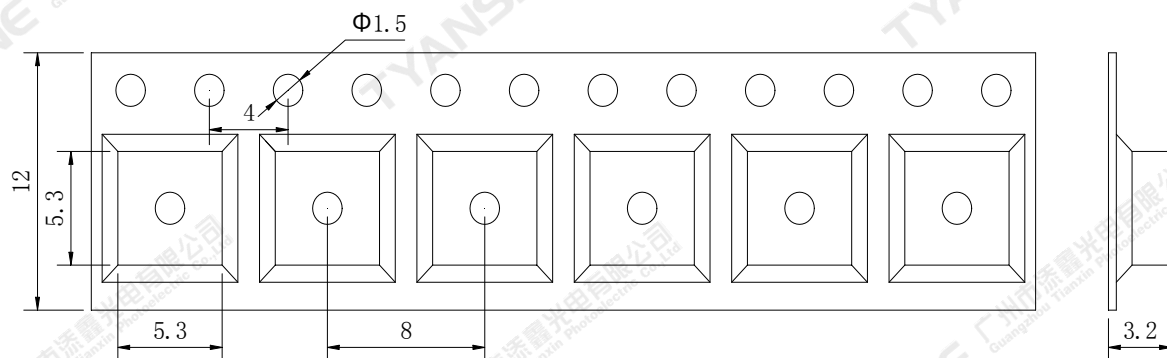
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)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