

TX-5050W40FC180-NUVENG-A03

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 2.5A.
- ◆High luminous output.
- ◆No UV.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ThinGaN

Emitting Color:

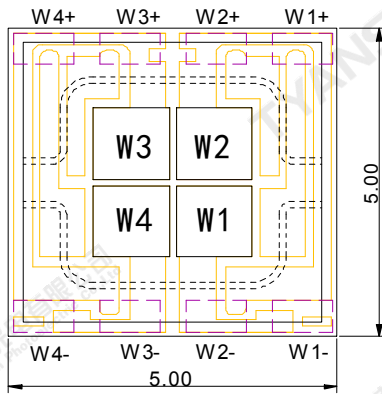
- ◆White

Applications:

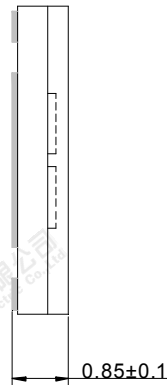
- ◆Auxiliary lighting
- ◆Ambient lighting
- ◆Architectural lighting

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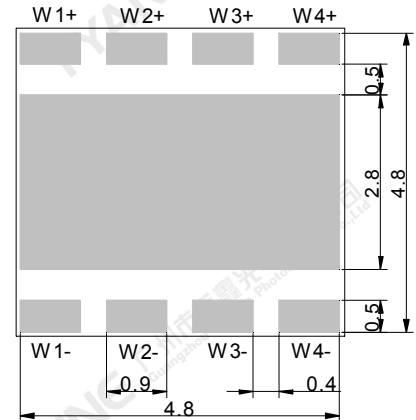
Package Dimensions:



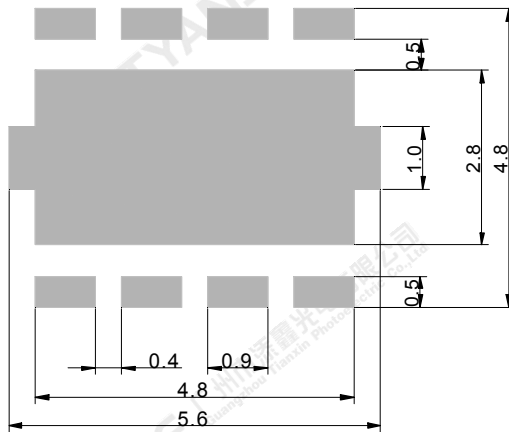
Top view



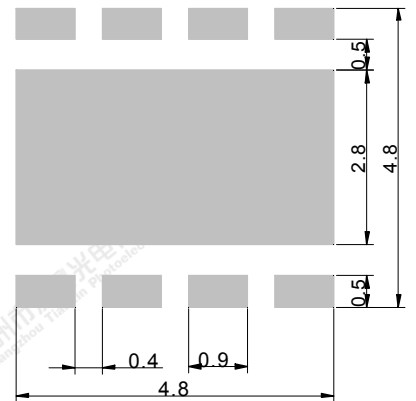
Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

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

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Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	IF	2500	mA
Reverse Voltage	VR	Not designed for reverse operation	V
Power Dissipation	PD	37.5	W
Junction Temperature	Tj	150	°C
Electrostatic Discharge Threshold (ESD)	ESD	2000	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	ϕ_v	If=2.5A	W	2000	2250	2500	lm
Forward Voltage	V_f		W	12	13.5	15	V
Viewing Angle at 50% IV	$2\theta_{1/2}$		W	—	120	—	Deg
Correlated Colour Temperature	CCT	If=1.0A	W	6500	6750	7000	K
		If=2.5A	W	6900	7250	7500	
Reverse Current	I_R	—	W	—	—	—	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	W	—	3.4	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	If=2.5A	W	—	-2.1	—	mV/°C

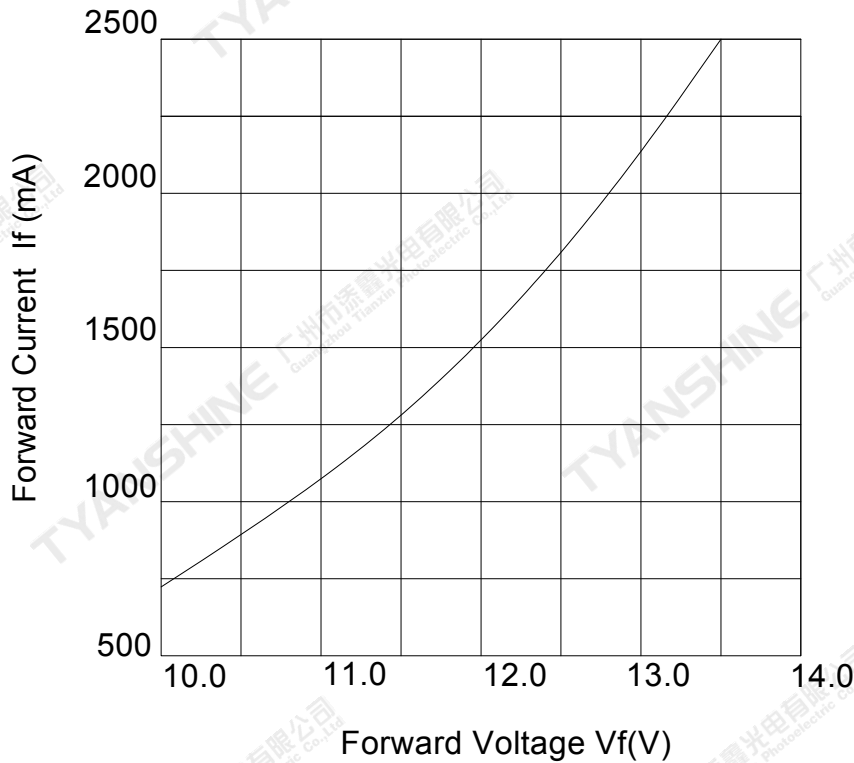
Notes:

- 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:±15%.
- 4.Forward voltage measurement tolerance:±0.15V.

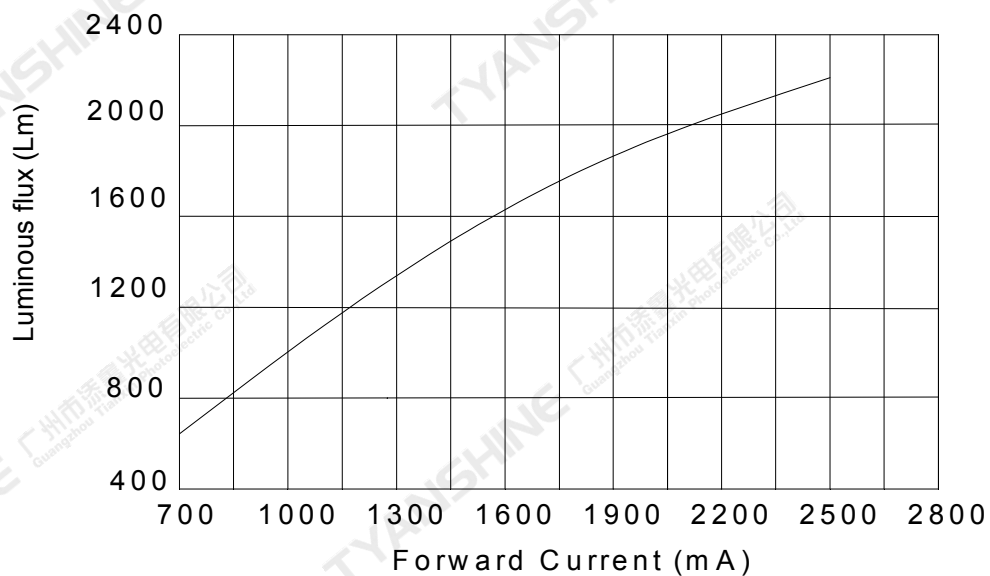
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

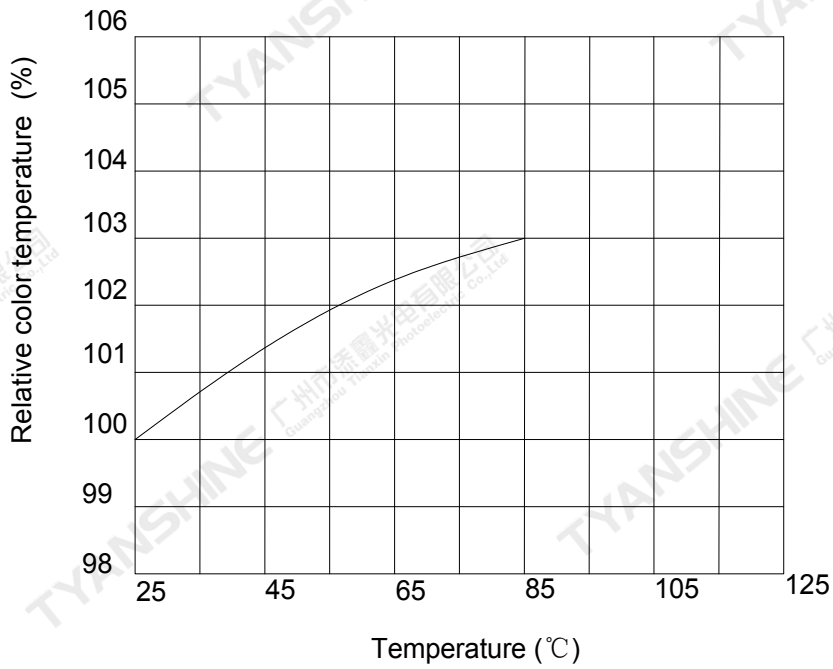
Forward Current VS. Forward Voltage



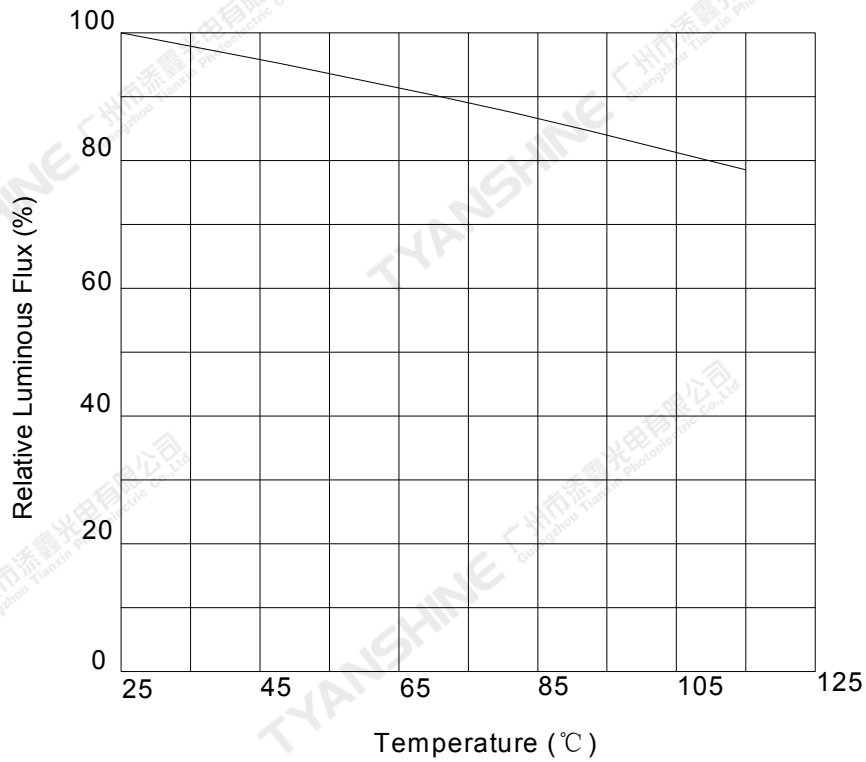
Forward Current VS. Luminous flux

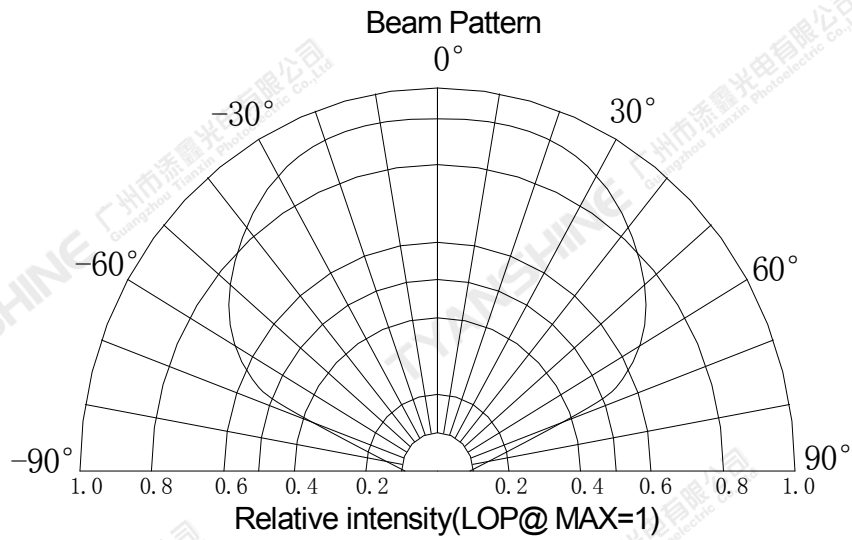
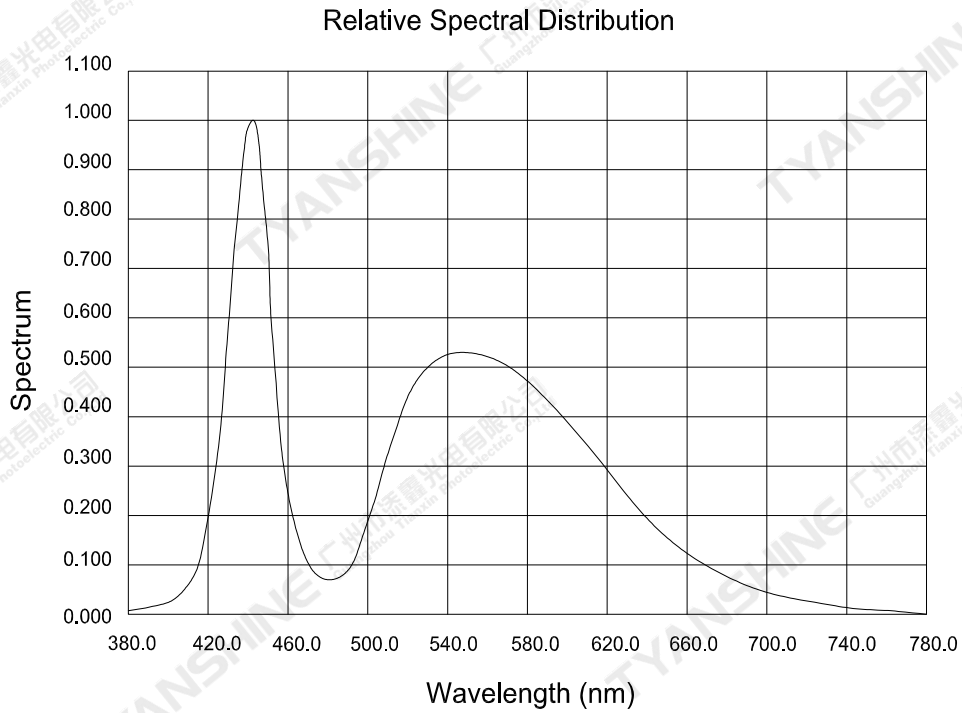


Temperature VS. Relative color temperature (IF=2500mA)



Temperature VS. Relative Luminous Flux (IF=2500mA)





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

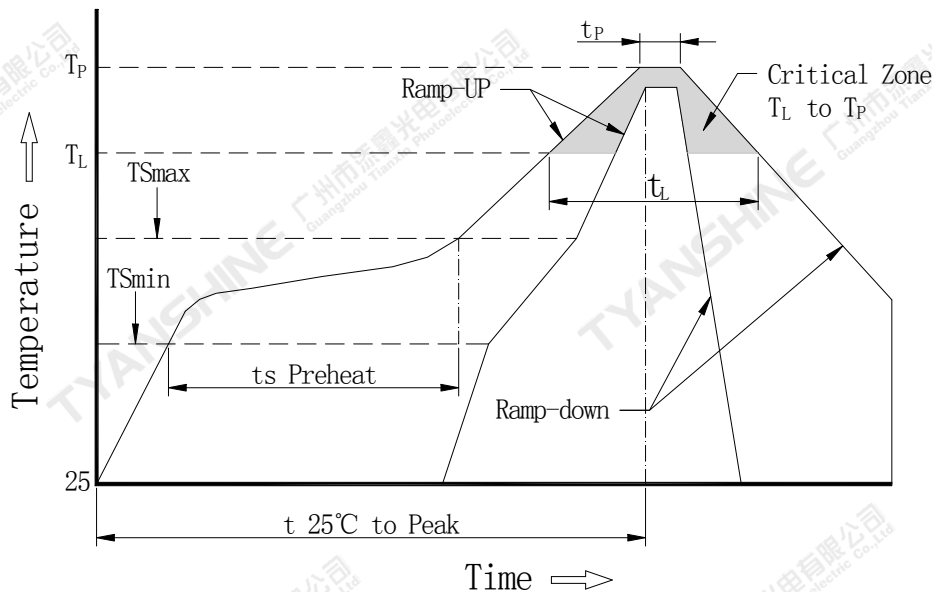
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



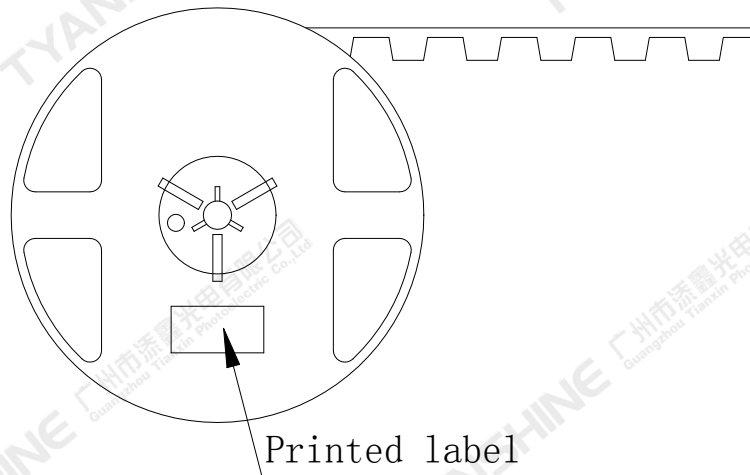
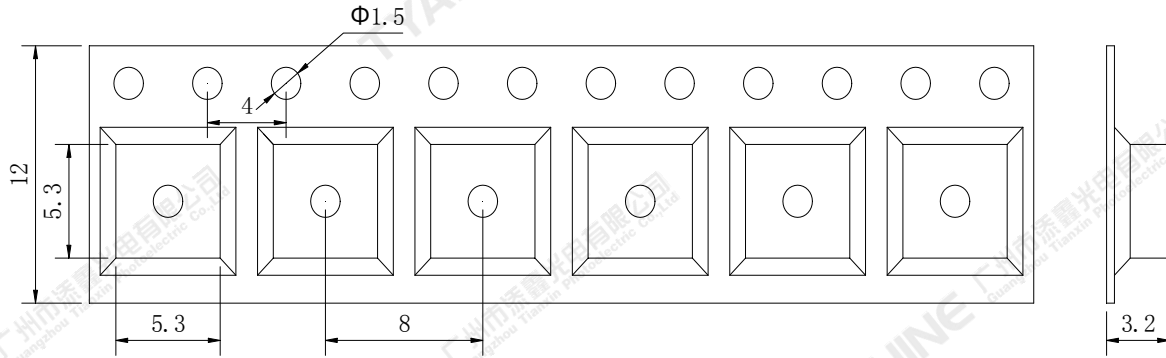
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_p)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)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