TX-5050W30VCA1-NP4CD-01

PRODUCT SPECIFICATION

Features:

◆Excellent transiting heat from LED chip operating under 9A.

◆High luminous output.

◆No UV.

◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

◆ThinGaN

Emitting Color:

◆White（W）

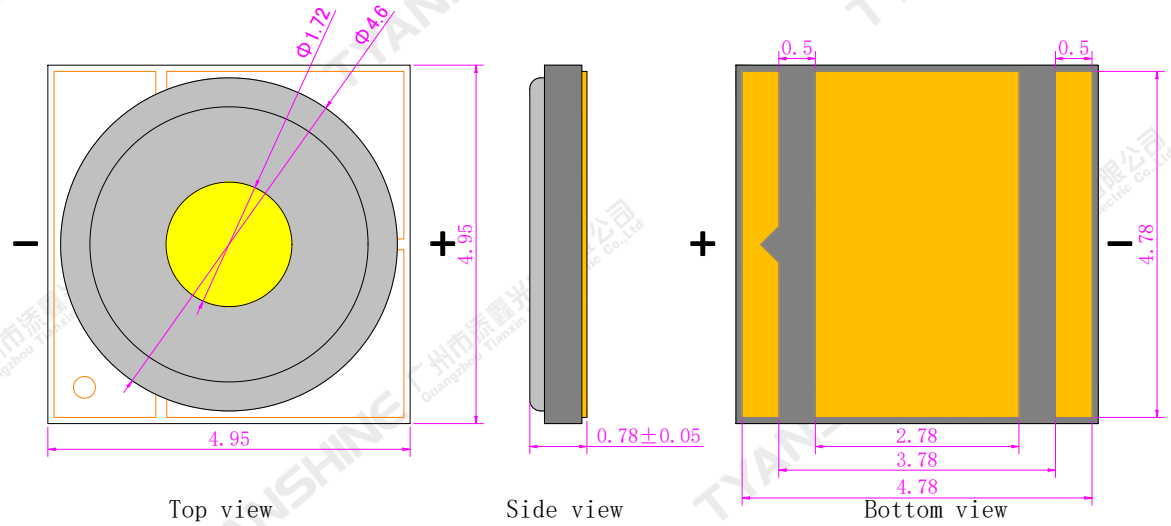
Applications:

◆Auxiliary lighting

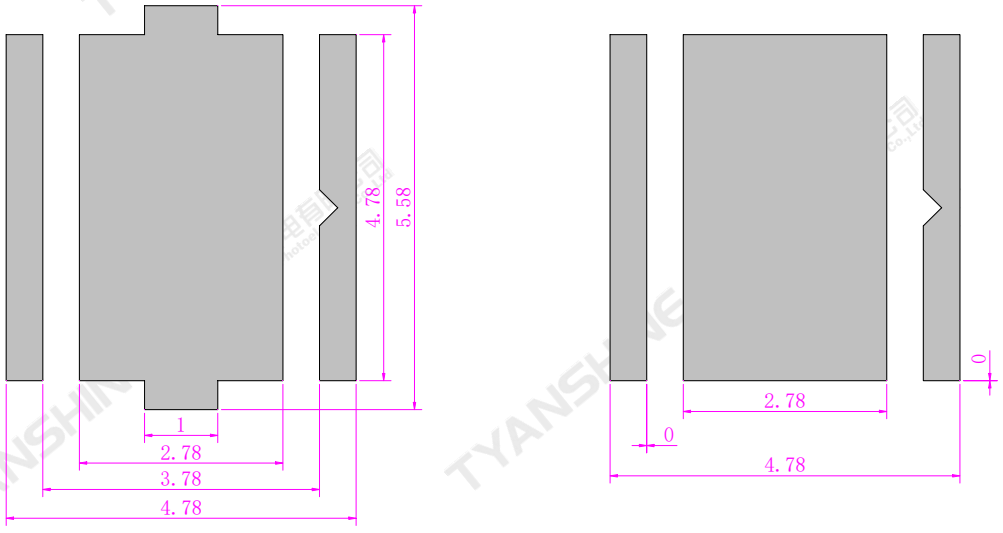
◆Ambient lighting

◆Architectural lighting

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 ±0.1mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol	Ratings	Unit
Forward Current	IF	9	A
Peak Forward Current (Note 1)	I_{FP}	11	A
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	22	W
Junction Temperature	Tj	150	℃
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Storage Temperature	T_{stg}	-40~+70	℃
Operation Temperature	T_{opr}	-30~+85	

Note: 1.Pulse width ≤0.1 msec, duty ≤1/10.

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	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	If=1A	380	420	—	lm
		If=7A	1500	1650	—	
Forward Voltage	V_f	If=1A	2.7	3.1	3.5	V
		If=7A	4.1	4.5	4.9	
Correlated Colour Temperature	CCT	If=1A	5700	6350	7000	K
		If=7A	6700	7500	8300	
Spectral Line Half-Width	△λ	If=7A	23	27	31	nm
Viewing Angle at 50％IV	$2\theta_{1/2}$	—	—	120	—	Deg
Reverse Current	I_R	$V_{R=}$-5V	—	—	2	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	2.1	—	K/W
Temperature Coefficient of Voltage	V△F/T	If=7A	—	-2.8	—	mV/℃

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.

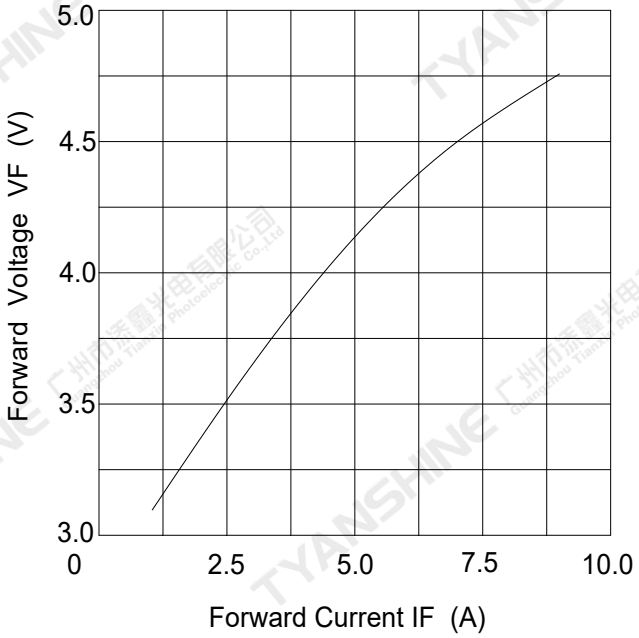
3.Luminous flux measurement tolerance:±15%.

4.Forward voltage measurement tolerance:±0.15V.

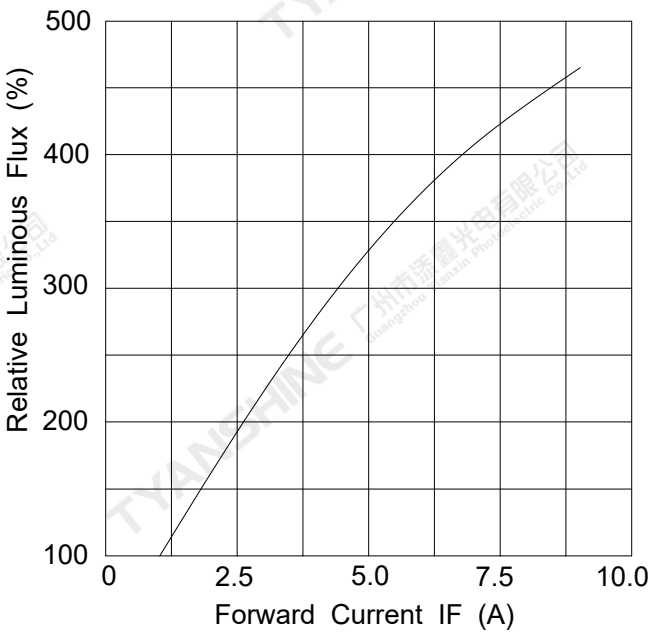
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

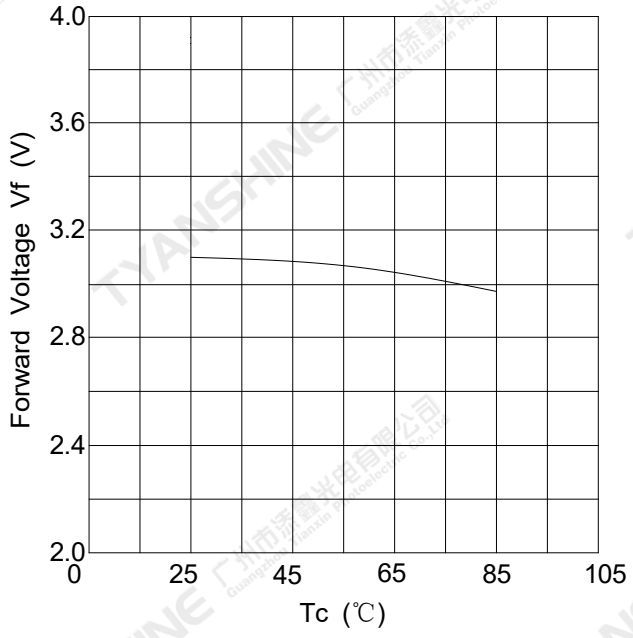
Forward Current VS. Relative Forward Voltage



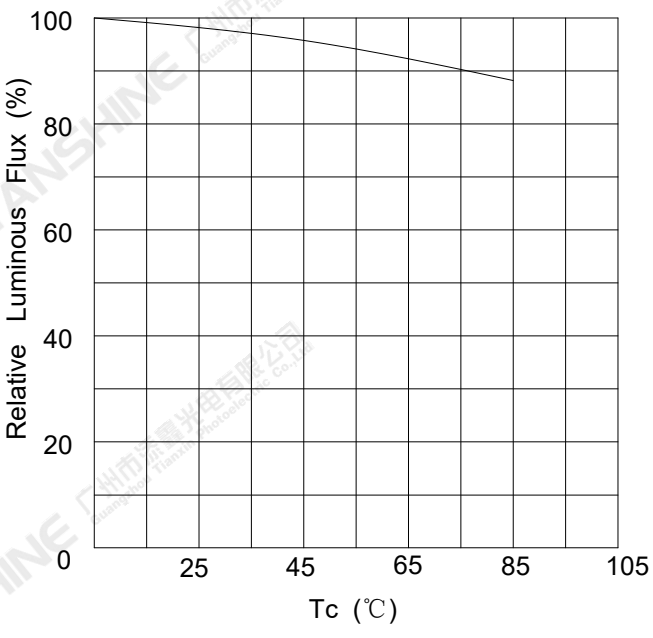
Forward Current VS. Relative Luminous Flux

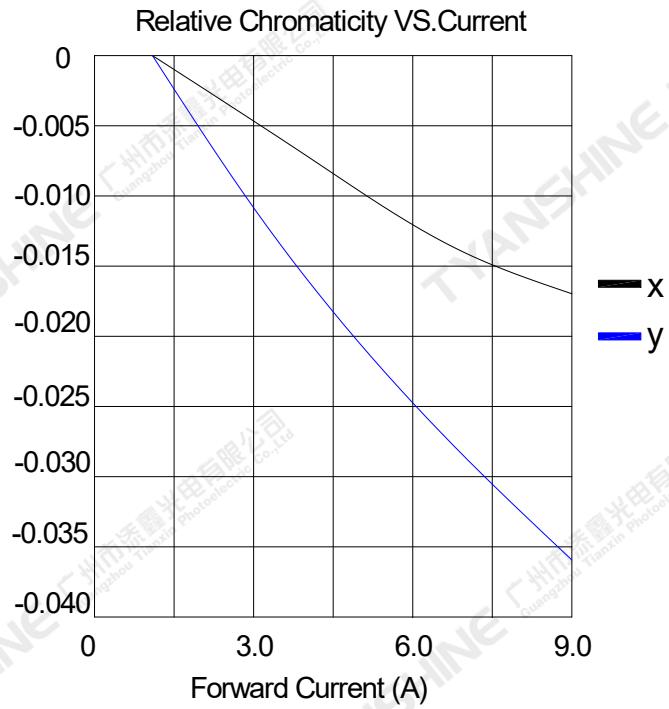


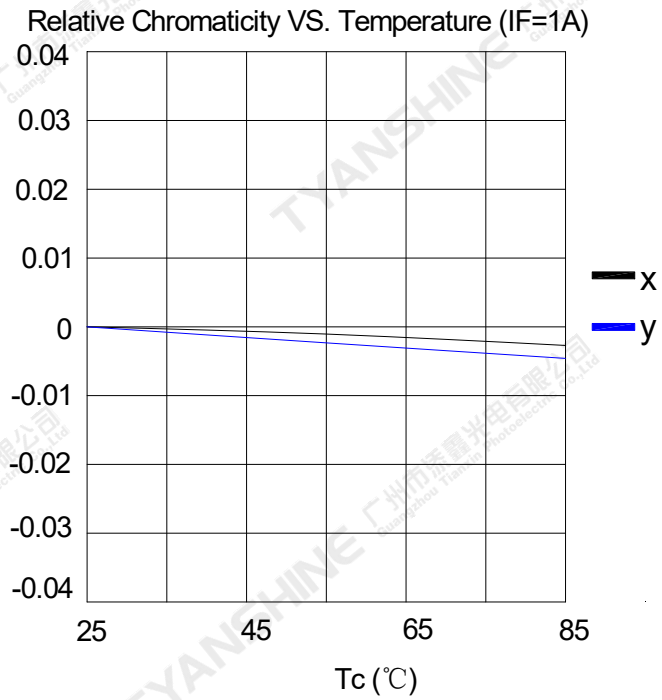
Temperature VS. Relative Forward Voltage (IF=1A)

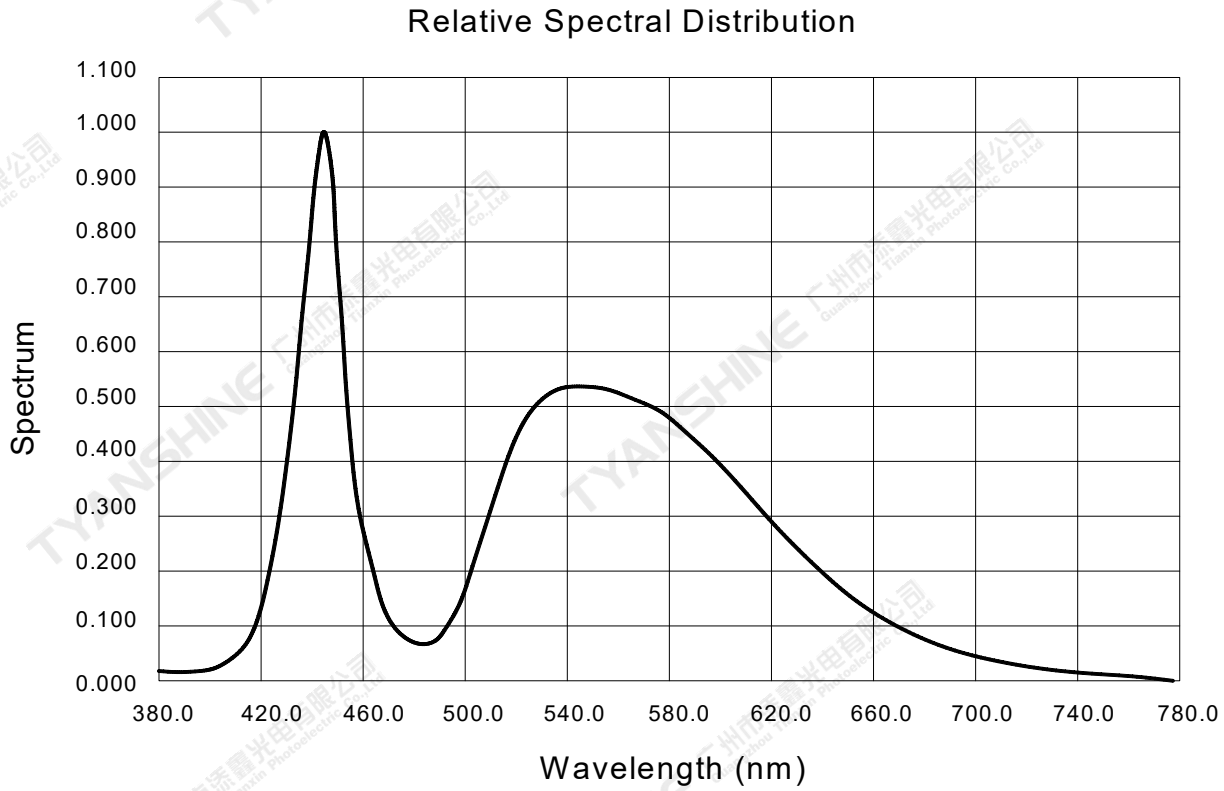


Temperature VS. Relative Luminous Flux (IF=1A)









Notes:

1. 2θ 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 ± 5°.

Usage Precautions

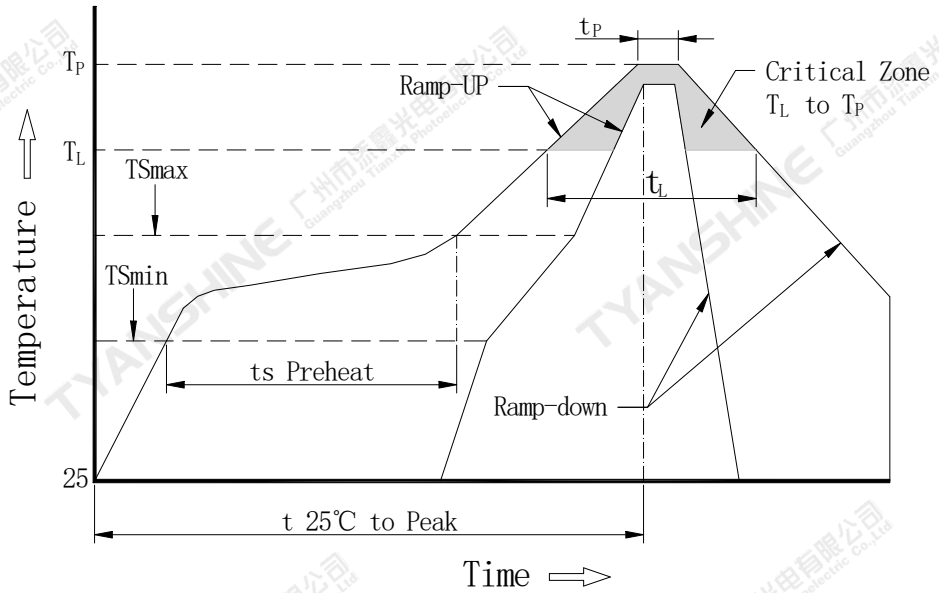
Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



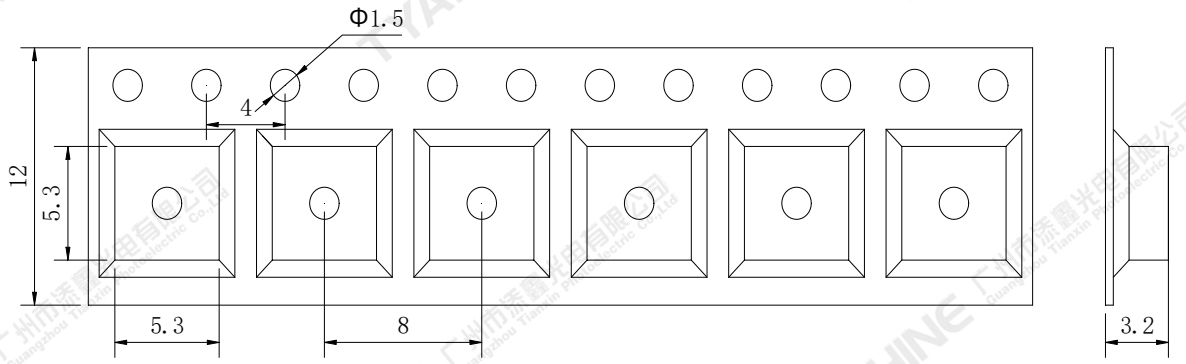
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (Ts_{max} to T_p)	3℃/second max.
Preheat: Temperature Min (Ts_{min})	100℃
Preheat: Temperature Max (Ts_{max})	150℃
Preheat: Time (Ts_{min} to Ts_{max})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183℃
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	225℃
Time Within 5℃ of Actual Peak Temperature (T_P)	10-30 seconds
Ramp-Down Rate	6℃/second max.
Time 25℃ to Peak Temperature	6 minutes max.

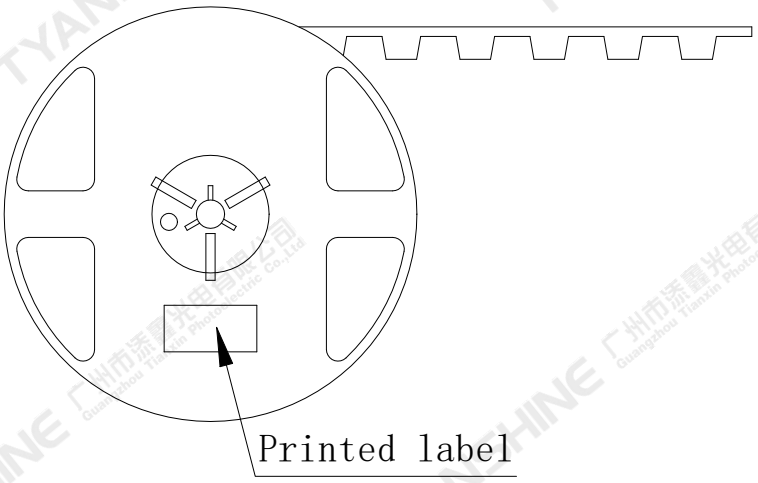
Note:

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.