

TX-5050W20VSA1-NG4CD-01

PRODUCT SPECIFICATION

Features:

- ◆ Excellent transiting heat from LED chip operating under 5.0A.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ ThinGaN

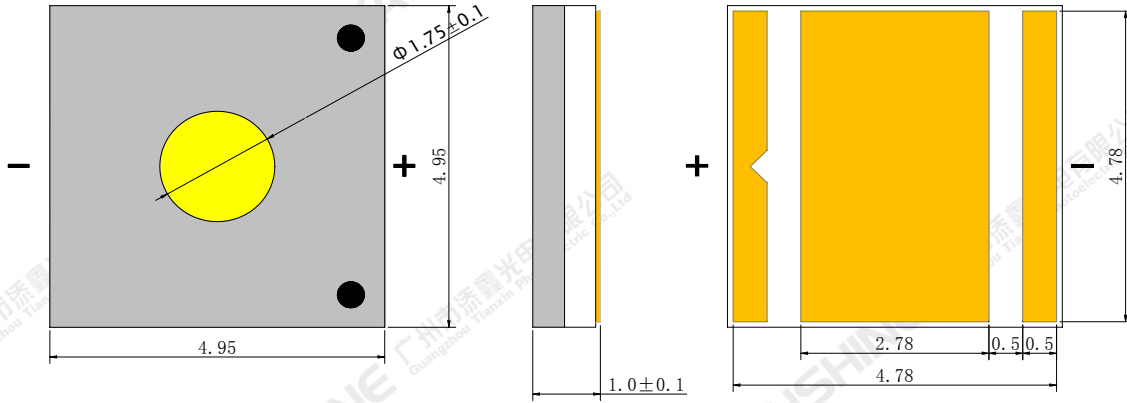
Emitting Color:

- ◆ White (W)

Applications:

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

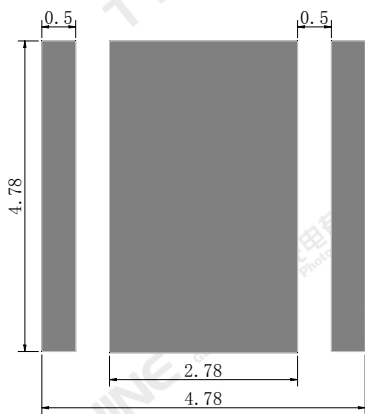
Package Dimensions:



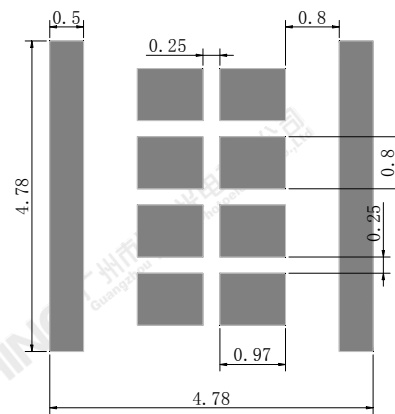
Top view

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 .

Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	I _F	5.0	A
Peak Forward Current (Note 1)	I _{FP}	6.0	
Reverse Voltage	V _R	Not designed for reverse operation	V
Power Dissipation	P _D	20	W
Junction Temperature	T _j	150	°C
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Storage Temperature	T _{stg}	-40~+70	°C
Operation Temperature	T _{opr}	-30~+125	

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

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.

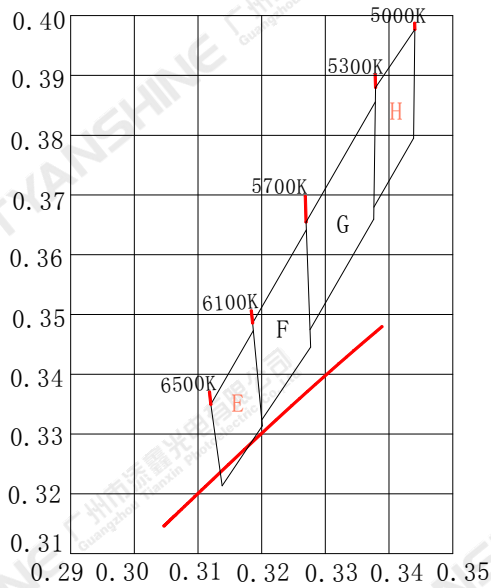
Electrical Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	ϕ_v	If=1.0A	W	380	400	440	lm
		If=5.0A	W	1200	1340	1480	
Forward Voltage	V_f	If=1.0A	W	2.7	3.0	3.4	V
		If=5.0A	W	3.7	4.0	4.4	
Viewing Angle at 50% IV	$2\theta_{1/2}$	—	W	—	120	—	Deg
Correlated Colour Temperature	CCT	If=1.0A	W	5000	5700	6500	K
		If=5.0A	W	5300	6200	7500	
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	W	—	1.5	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	If=1.0A	W	—	-5.5	—	mV/°C
		If=5.0A	W	—	-3.0	—	

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.

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

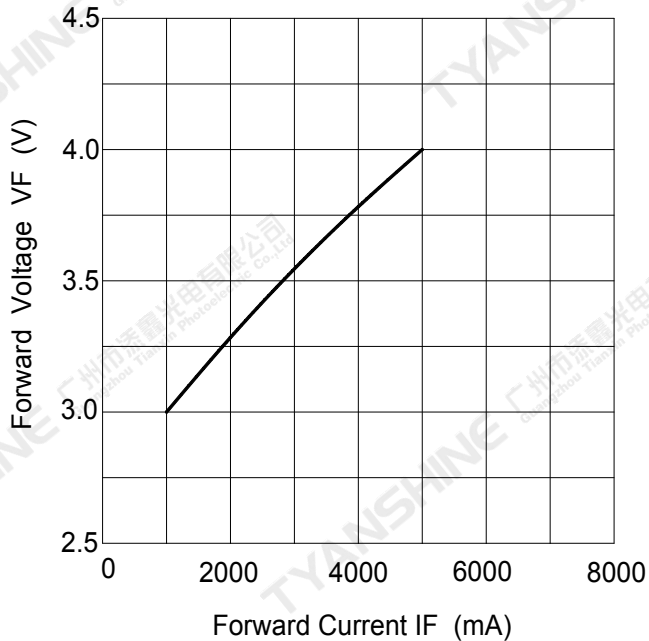


Grade	TC	P1		P2		P3		P4	
		X1	Y1	X2	Y2	X3	Y3	X4	Y4
H	5000-5300K	0.3439	0.3795	0.3376	0.3680	0.3379	0.3880	0.3441	0.3977
G	5300-5700K	0.3376	0.3659	0.3276	0.3475	0.3270	0.3655	0.3379	0.3856
F	5700-6100K	0.3277	0.3445	0.3200	0.3324	0.3186	0.3486	0.3270	0.3642
E	6100K-6500K	0.3201	0.3314	0.3138	0.3213	0.3120	0.3350	0.3187	0.3473

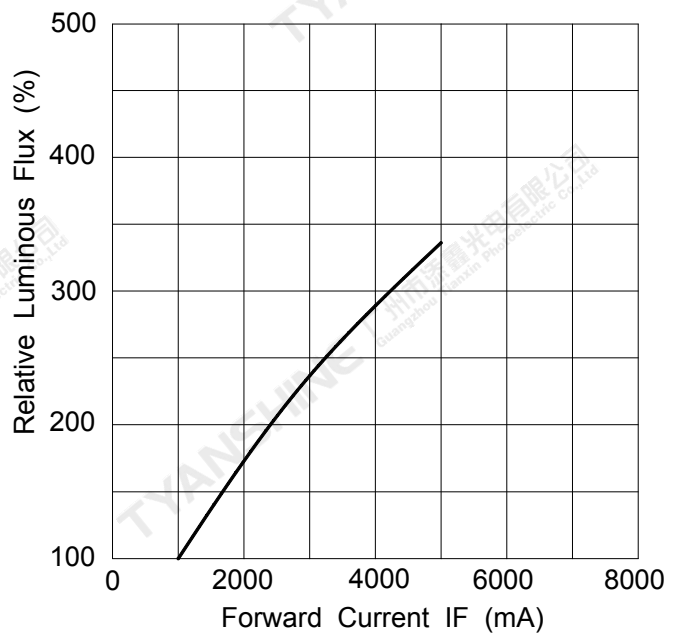
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

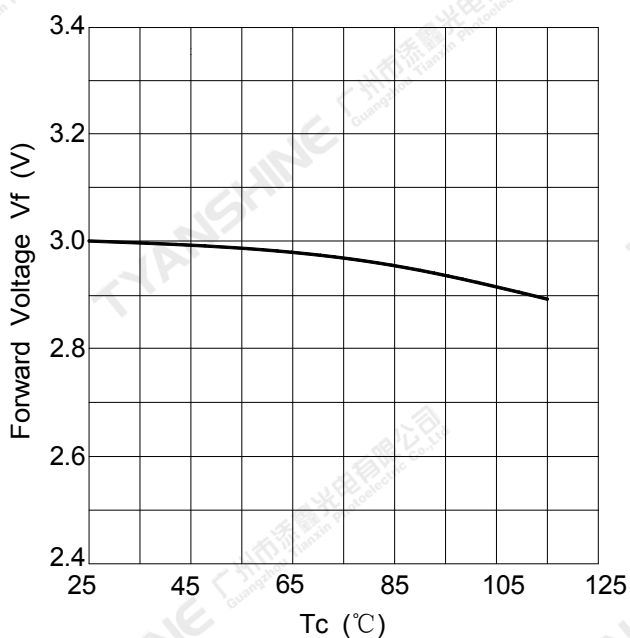
Forward Current VS. Relative Forward Voltage



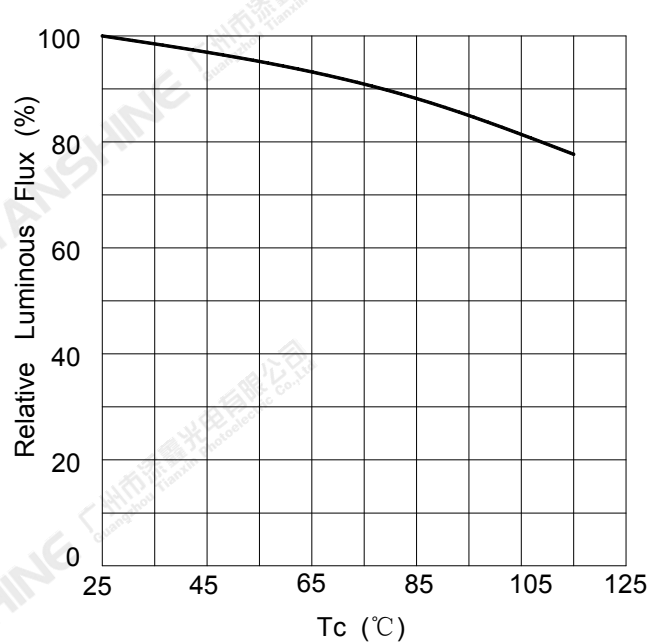
Forward Current VS. Relative Luminous Flux

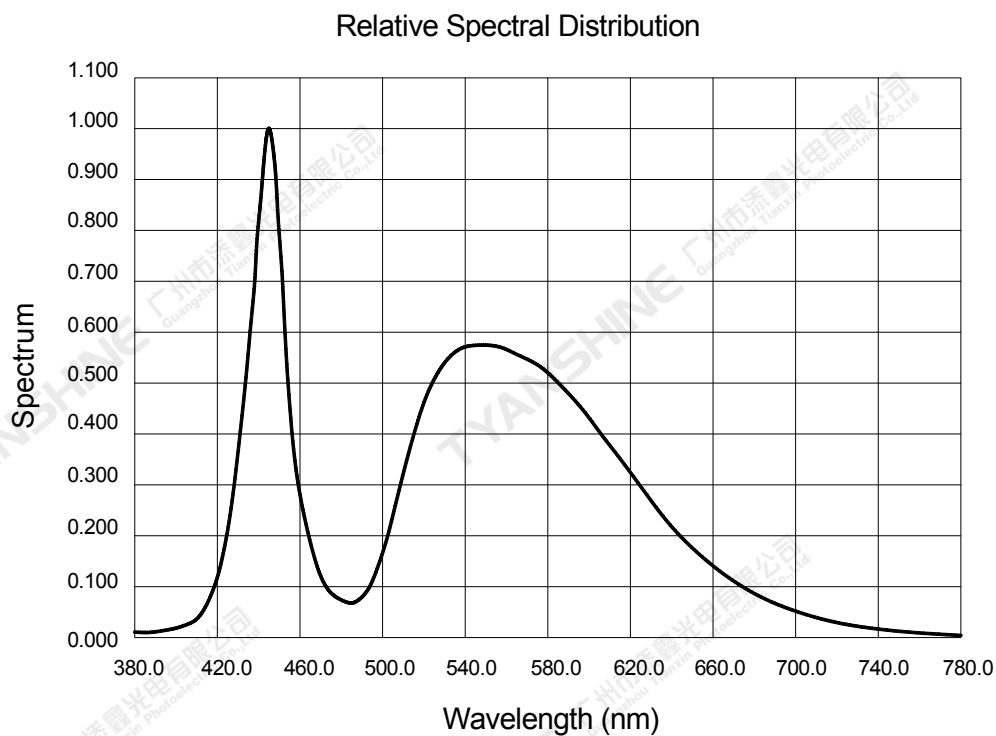
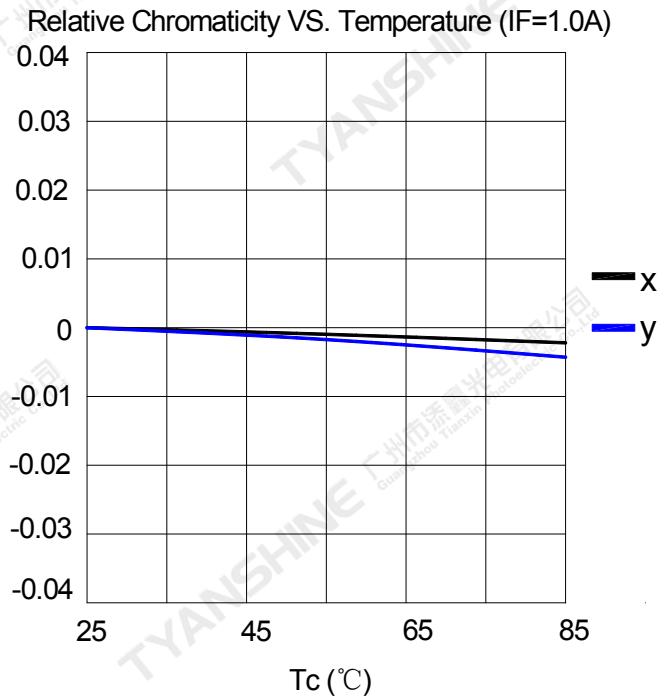
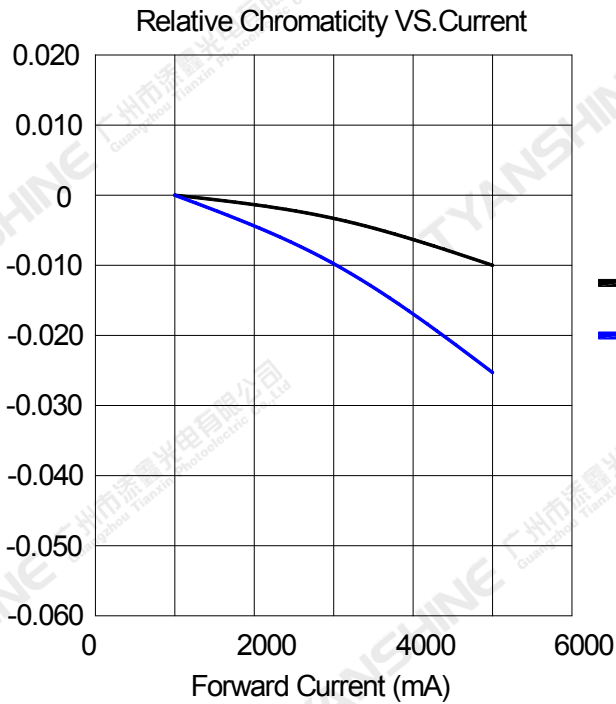


Temperature VS. Relative Forward Voltage (IF=1.0A)



Temperature VS. Relative Luminous Flux (IF=1.0A)





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 $\pm 5^\circ$.

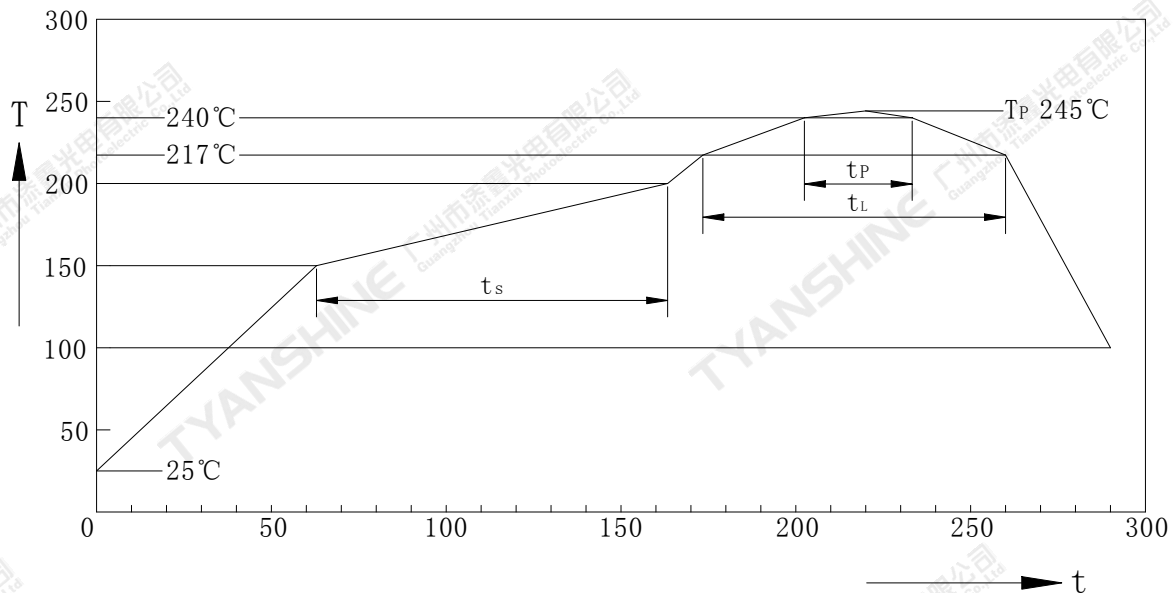
Usage Precautions

Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition



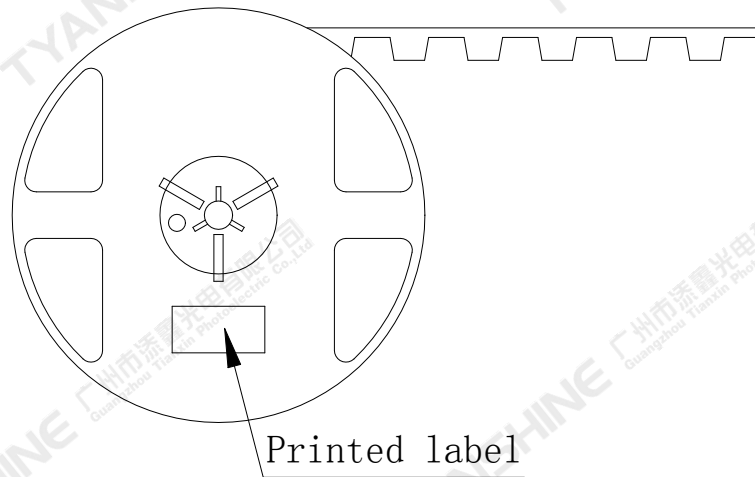
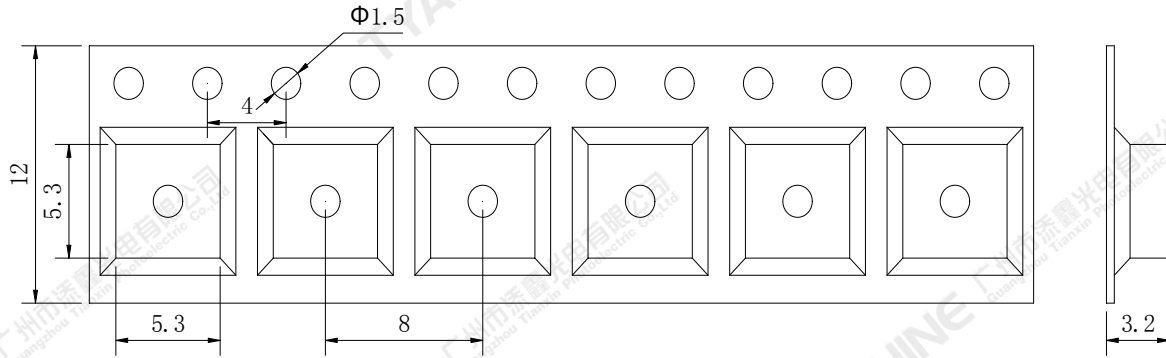
Profil-Charakteristik Profile Feature	Symbol	Pb-Free(SnAgCu)Assembly			Einheit Unit
		Minimum	Recommendation	Maximum	
Ramp-up Rate to Preheat 25°C to 150°C	-	-	2	3	K/s
Time t_s T_{Smin} to T_{Smax}	t_s	60	100	120	s
Ramp-up Rate to Peak T_{Smax} to T_p	-	-	2	3	K/s
Liquidus Temperature	T_L	217			°C
Time above Liquidus temperature	t_L	-	80	100	s
Peak Temperature	T_P	-	245	260	°C
Time within 5°C of the specified peak temperature T_p-5 K	t_p	10	20	30	s
Ramp-down Rate T_p to 100°C	-	-	3	6	K/s
Time 25°C to T_p	-	-	-	480	-

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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