

TX-5050W15VCA1-NG4AA-02H90

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:

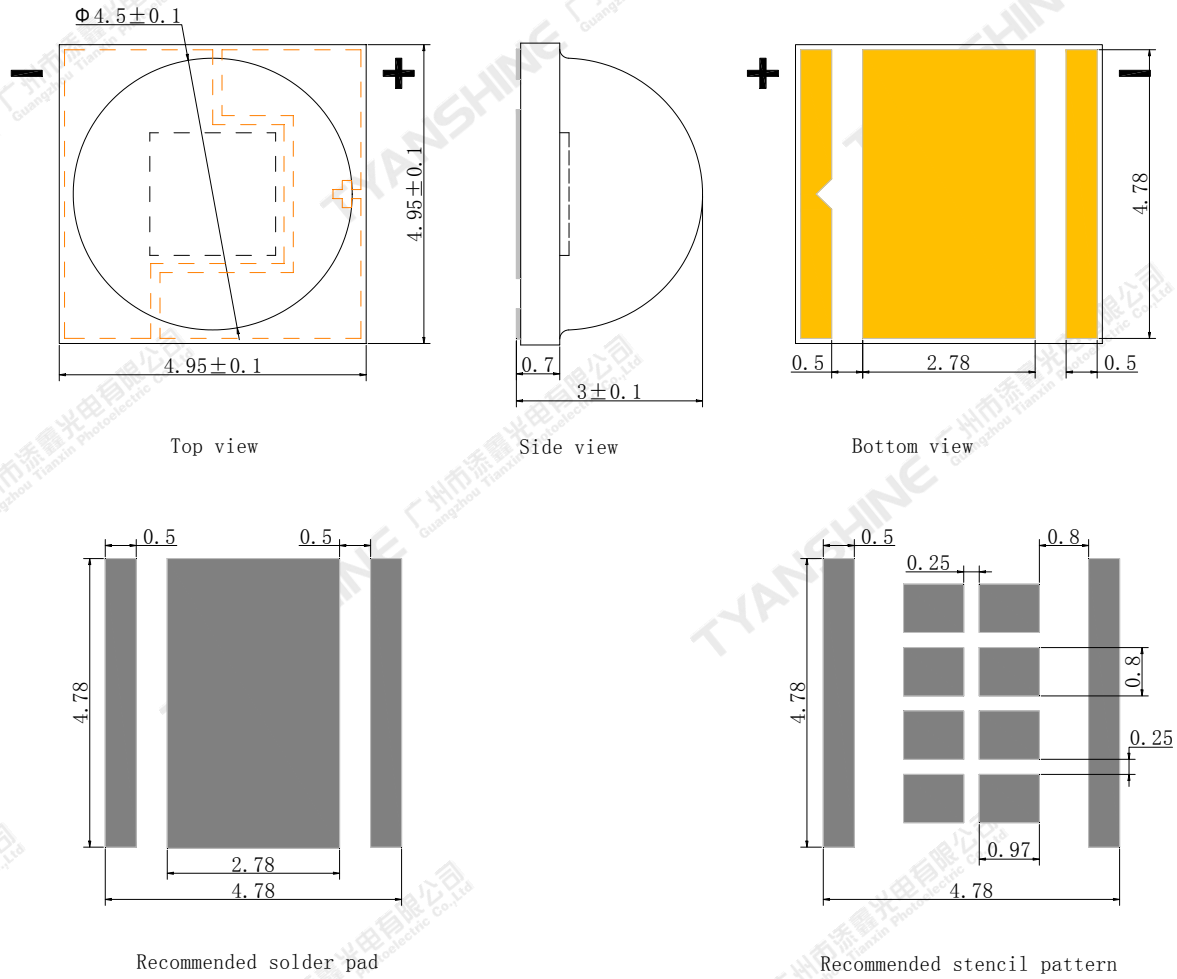
- ◆ White(W)

Applications:

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

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Package Dimensions:



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	I _F	5.0	A
Peak Forward Current (Note 1)	I _{FP}	6.0	
Reverse Voltage	V _R	7	V
Power Dissipation	P _D	17.5	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~+85	

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

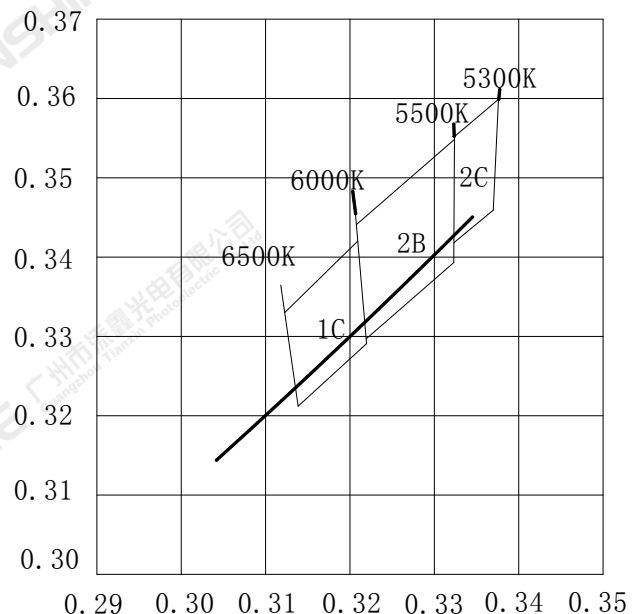
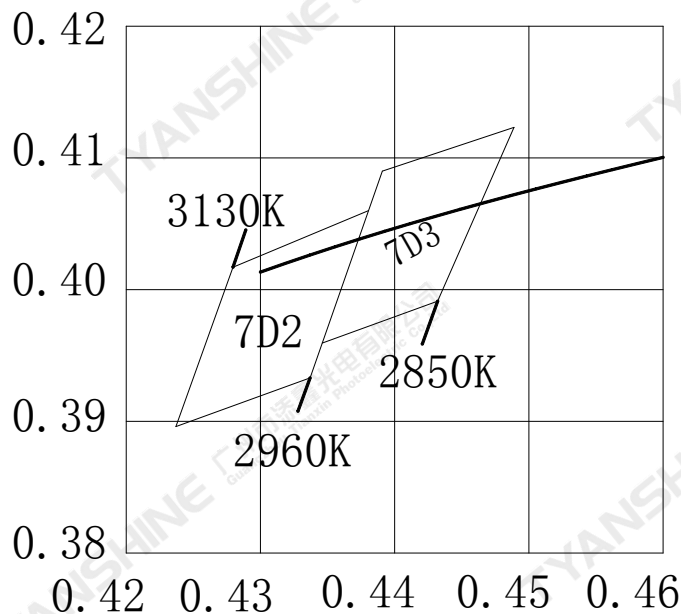
Notes:

- 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=0.7A	S(Typ 2980K)	190	225	—	lm
			W(Typ 5850K)	255	275	—	
		If=4.5A	S(Typ 2980K)	950	1050	—	
			W(Typ 5850K)	1100	1250	—	
Forward Voltage	V_f	If=0.7A	W	2.7	2.9	3.3	V
		If=4.5A	W	3.2	3.5	3.8	
Correlated Colour Temperature	CCT	If=0.7A	S(Typ 2980K)	2850	2980	3130	K
			W(Typ 5850K)	5300	5850	6500	
		If=4.5A	S(Typ 2980K)	2930	3080	3250	
			W(Typ 5850K)	5400	6000	6700	
Color Rendering Index	Ra	If=0.7A	W	90	92.5	—	—
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	—	2.8	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$		W	—	-2.1	—	mV/°C

White light Color coordinate filing (IF=0.7A)



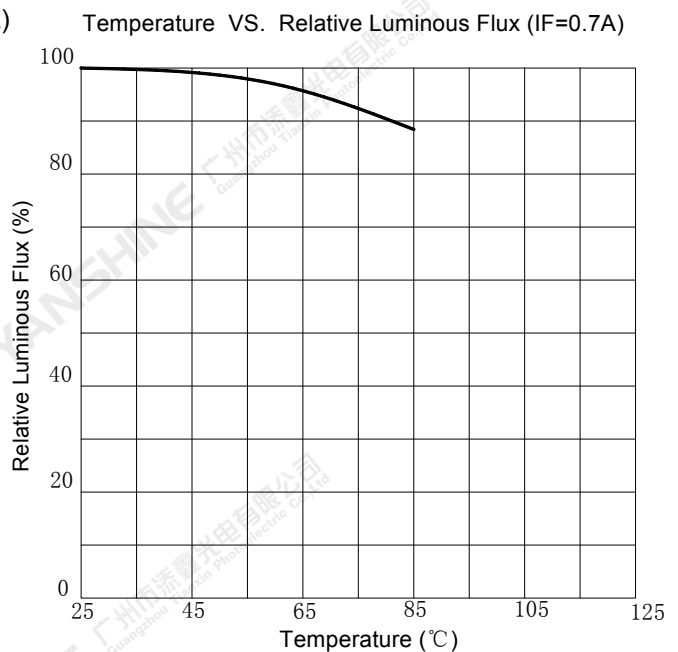
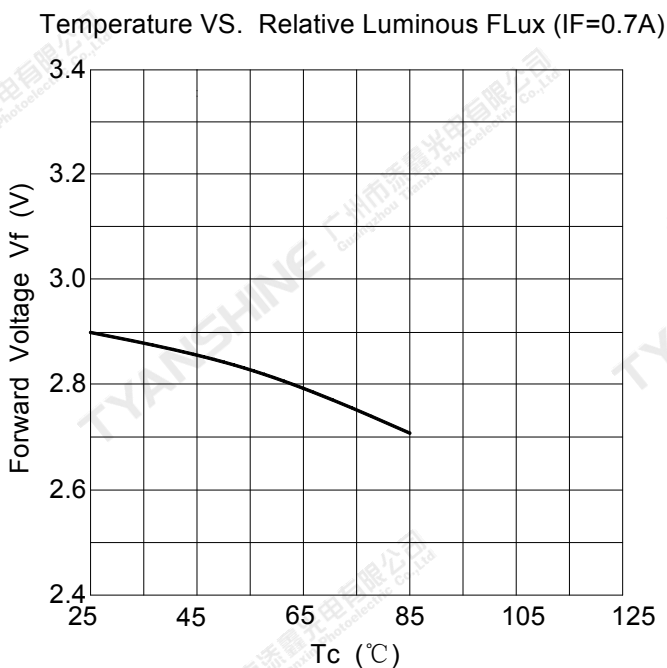
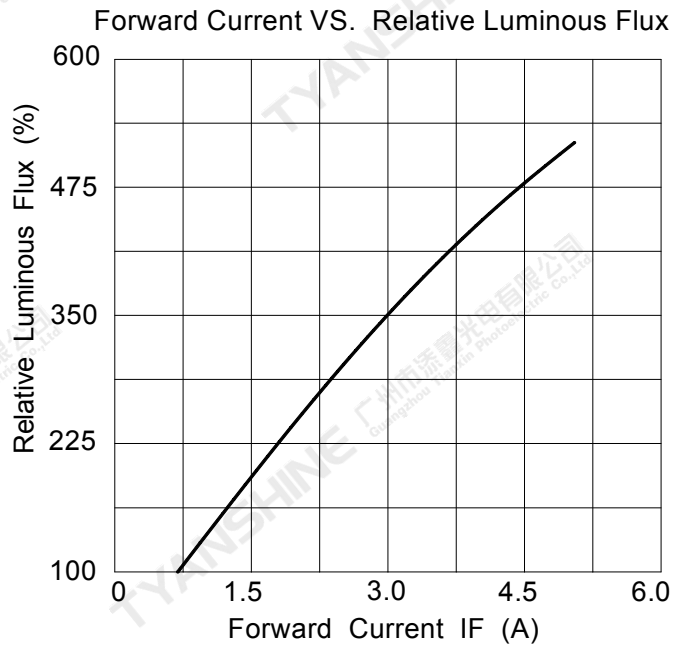
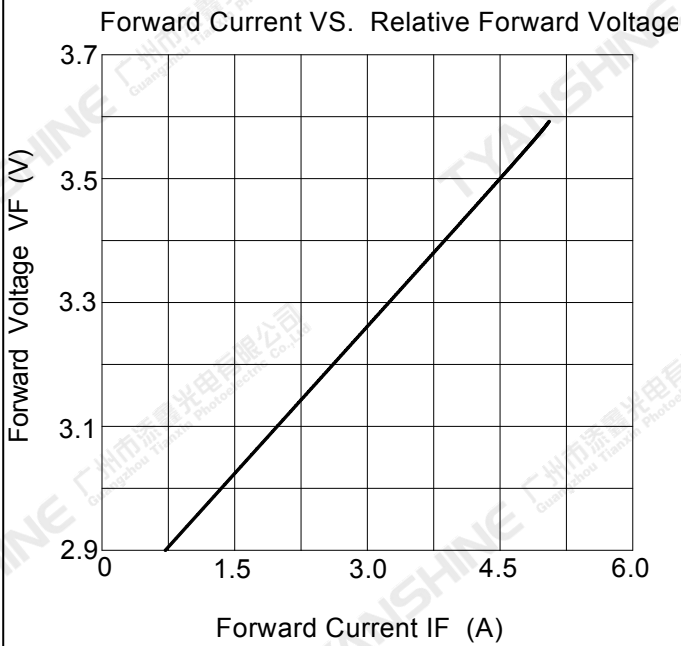
Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
7D3	2850K	2960K	0.4432	0.3991	0.4346	0.3959	0.4391	0.4090	0.4489	0.4123
7D2	2960K	3130K	0.4337	0.3933	0.4237	0.3896	0.4280	0.4017	0.4381	0.4060
2C	5300K	5500K	0.3370	0.3459	0.3323	0.3418	0.3324	0.3552	0.3376	0.3599
2B	5500K	6000K	0.3323	0.3393	0.3219	0.3297	0.3208	0.3441	0.3324	0.3548
1C	6000K	6500K	0.3220	0.3291	0.3139	0.3212	0.3123	0.3330	0.3209	0.3420

Notes:

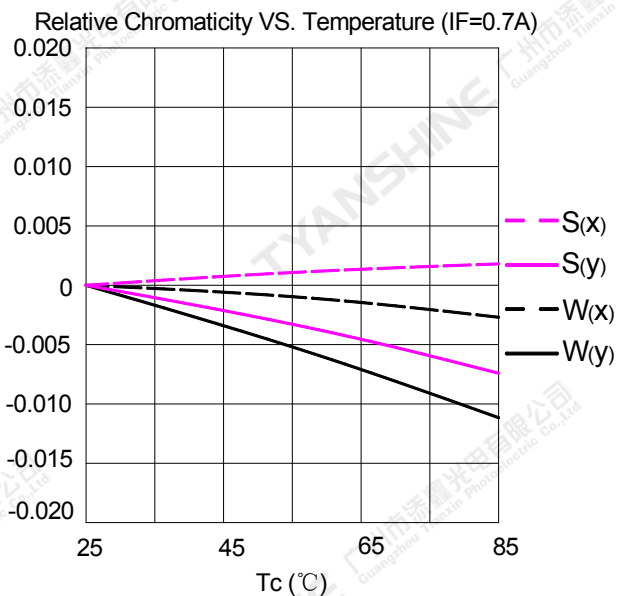
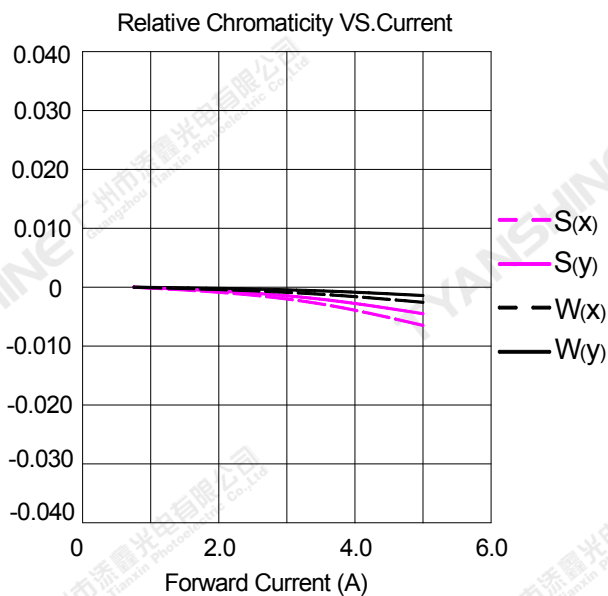
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.Luminous flux measurement tolerance: $\pm 10\%$.
- 4.Forward voltage measurement tolerance: $\pm 10\%V$.
- 5.Ra measurement tolerance: ± 2 .

Typical Electrical/Optical Characteristics Curves

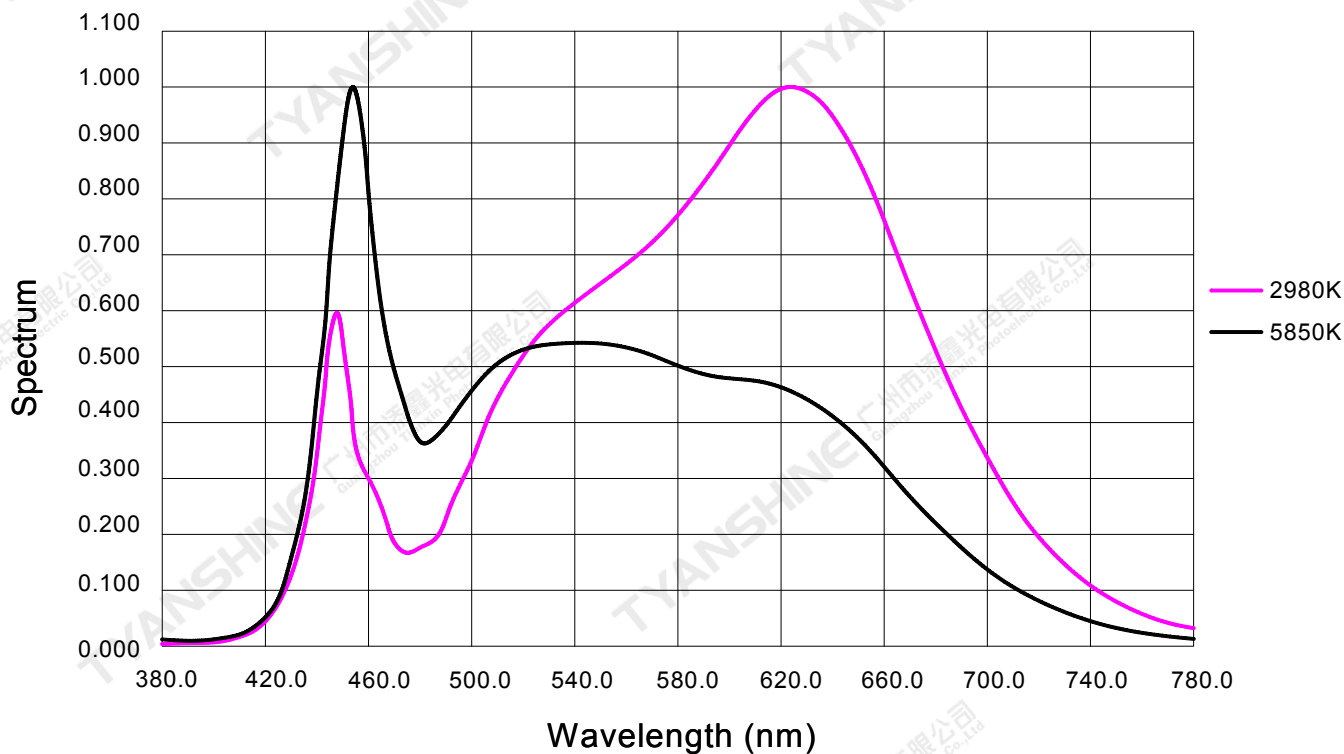
(25°C Ambient Temperature Unless Otherwise Noted)



Notes: — White (W) ;



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

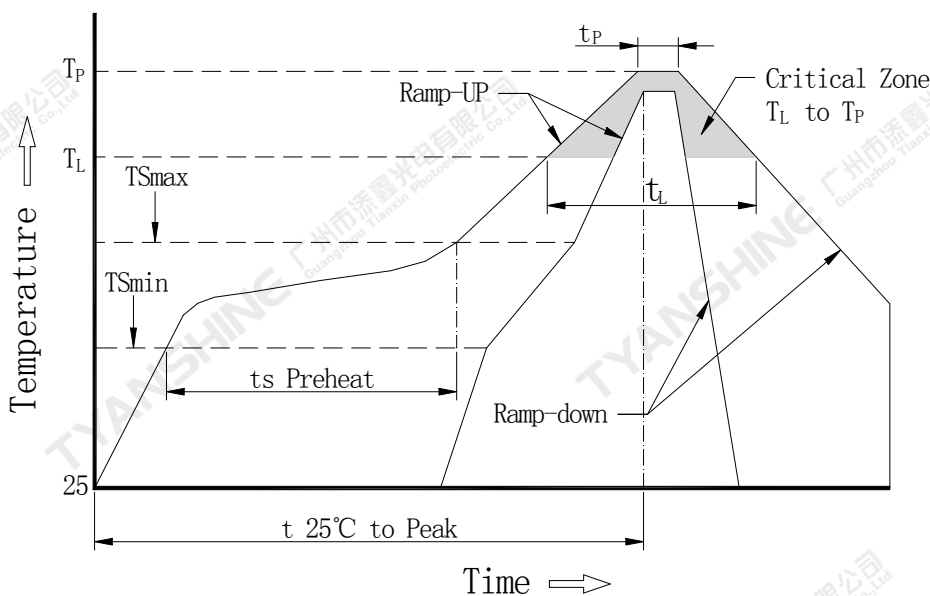
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



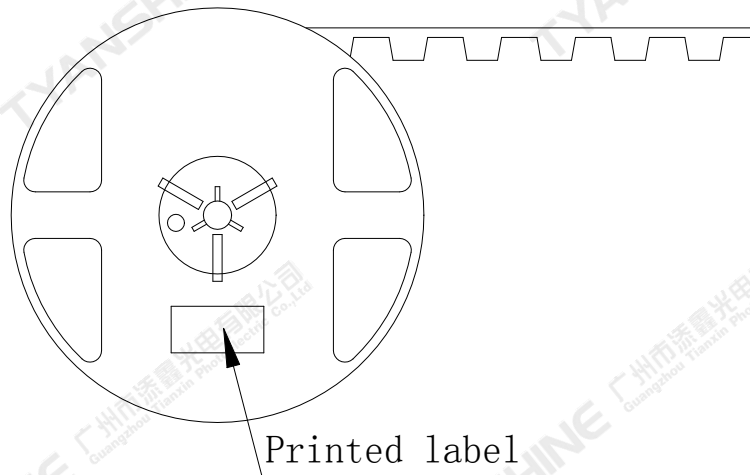
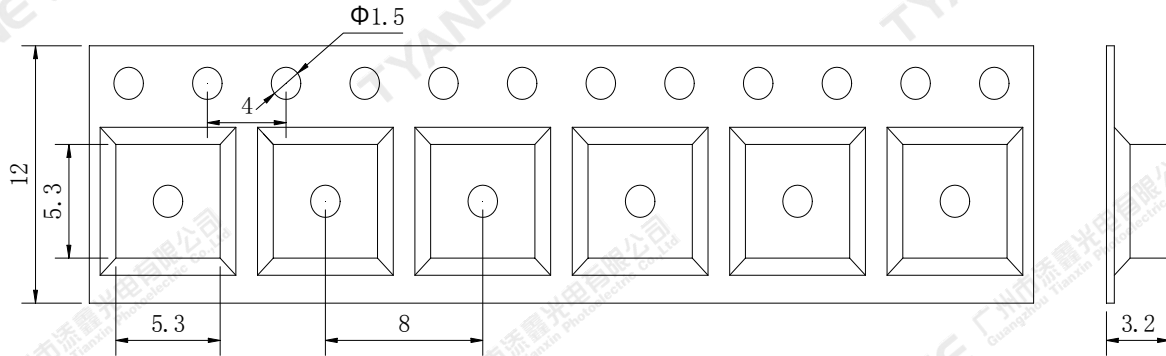
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (TSmax to TP)	3°C/second max.
Preheat: Temperature Min (TSmin)	100°C
Preheat: Temperature Max (TSmax)	150°C
Preheat: Time (TSmin to TSmax)	60-120 seconds
Time Maintained Above: Temperature (TL)	183°C
Time Maintained Above: Time (TL)	60-150 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: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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