

TX-5050RGBW10FC120-NGVCND34-02B

PRODUCT SPECIFICATION

Features:

- ◆ Excellent transiting heat from LED chip operating under 1000 mA
- ◆ High luminous output
- ◆ No UV
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ Red:AlInGaP
- ◆ Green: GaInN
- ◆ Blue:GaInN
- ◆ White:GaInN

Emitting Color:

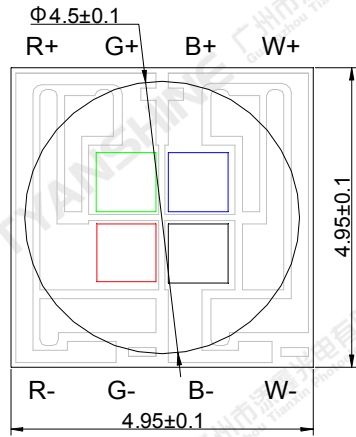
- ◆ Red
- ◆ Green
- ◆ Blue
- ◆ White

Applications:

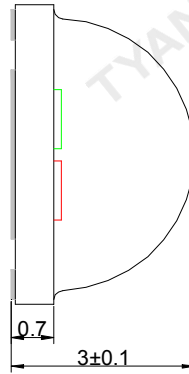
- ◆ Auxiliary lighting
- ◆ Ambient lighting
- ◆ Architectural lighting

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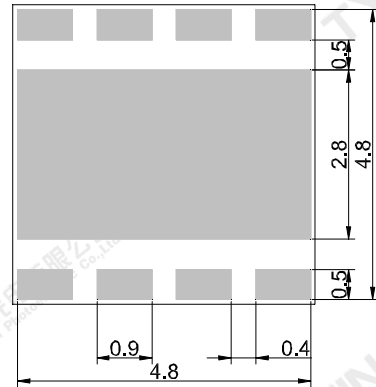
Package Dimensions:



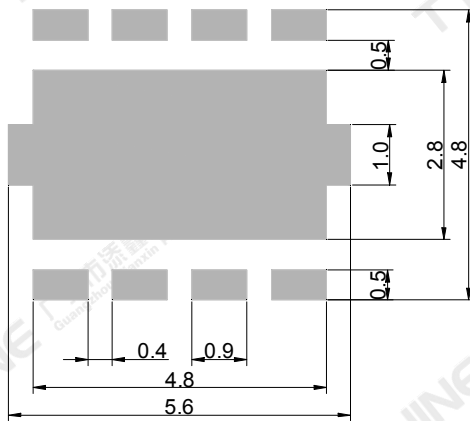
Top view



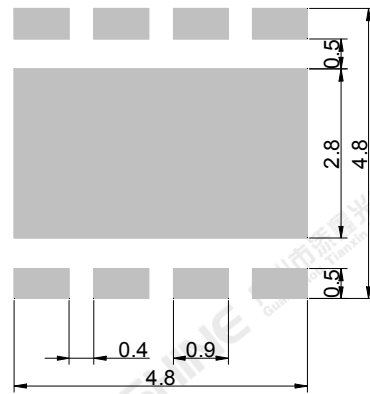
Side view



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	Max Ratings	Unit
Forward Current	IF	1000	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	R	2700
		G	3700
		B	3700
		W	3700
Junction Temperature	Tj	R	115
		G	150
		B	150
		W	150
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=700mA	R	110	130	155	lm
			G	190	235	265	
			B	30	40	55	
			W	200	230	270	
Dominant Wavelength	λ_d		R	618	623	628	nm
			G	519	524	529	
			B	450	455	460	
Correlated Colour Temperature	CCT		W	6500	7000	7500	K
Peak-emission Wavelength	λ_p		R	628	633	638	nm
			G	514	519	524	
			B	446	451	456	
Spectral Line Half-Width	$\Delta\lambda$		R	10	15	20	nm
		G	30	35	40		
		B	15	20	25		
		W	25	35	45		
Forward Voltage	V_f	R	2.0	2.3	2.7	V	
		G	3.0	3.3	3.7		
		B	3.0	3.3	3.7		
		W	3.0	3.3	3.7		
Reverse Current	I_R	R	—	—	2	μA	
		G	—	—	2		
		B	—	—	2		
		W	—	—	2		
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	R	—	3.7	—	K/W
		—	G	—	3.7	—	

			B	—	3.7	—	
			W	—	3.7	—	
Temperature Coefficient of Voltage	V△F/T	If=700mA	R	—	-2	—	mV/°C
			G	—	-3.5	—	
			B	—	-2	—	
			W	—	-3	—	

White Color coordinate filing (IF=700mA)

Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
E11	6500	7000	0.3138	0.3216	0.3067	0.3143	0.3044	0.3259	0.3121	0.3331
D	7000	7500	0.3071	0.3125	0.3012	0.3064	0.2988	0.3154	0.3051	0.3221

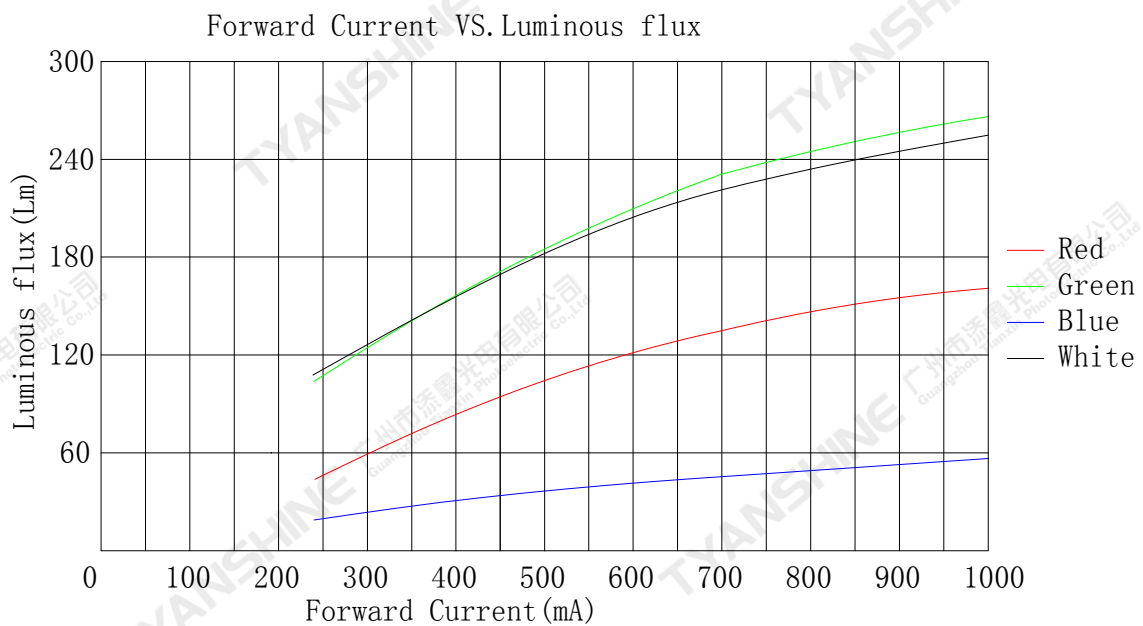
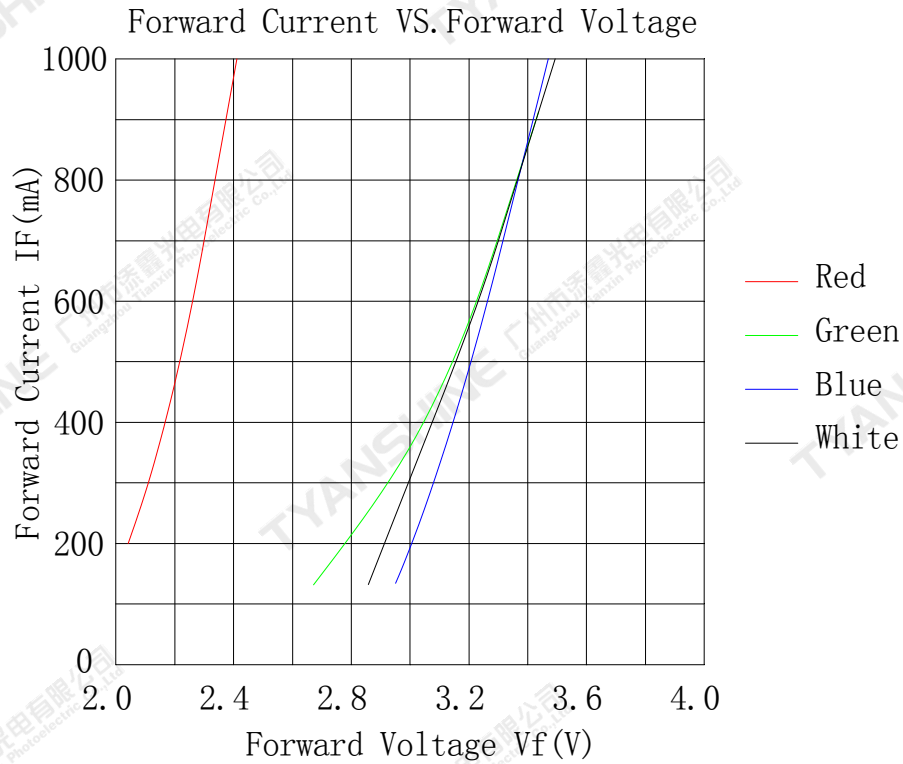
Notes:

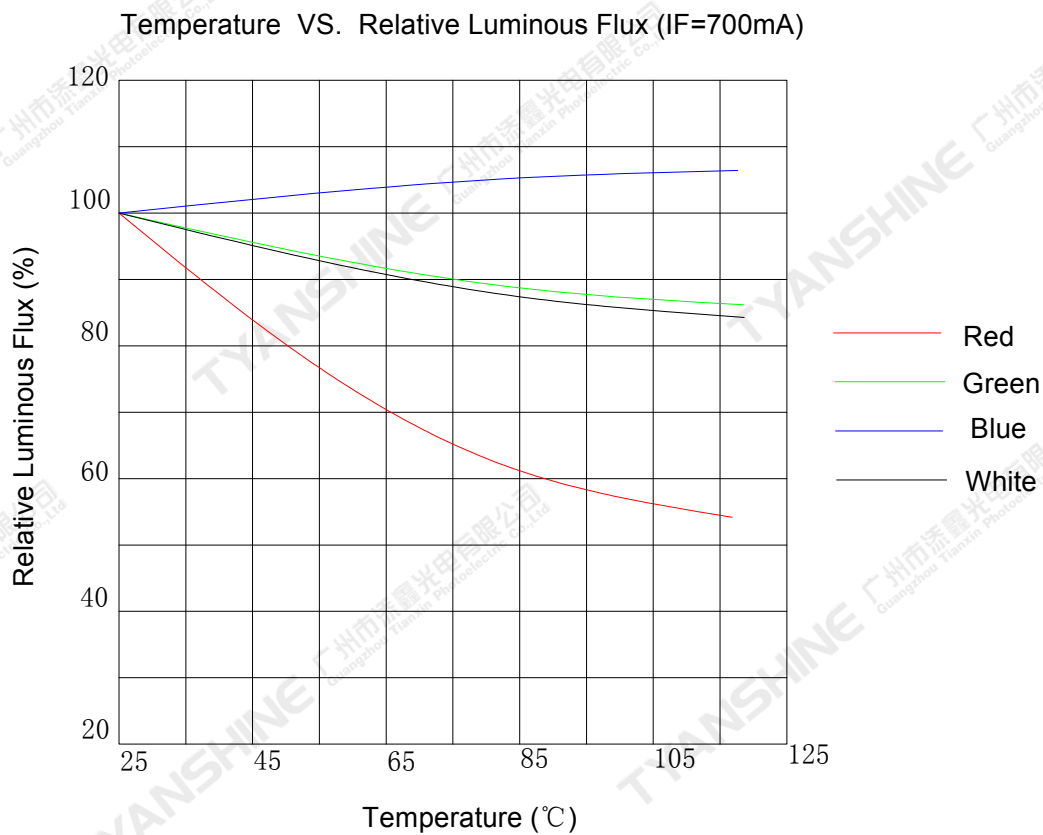
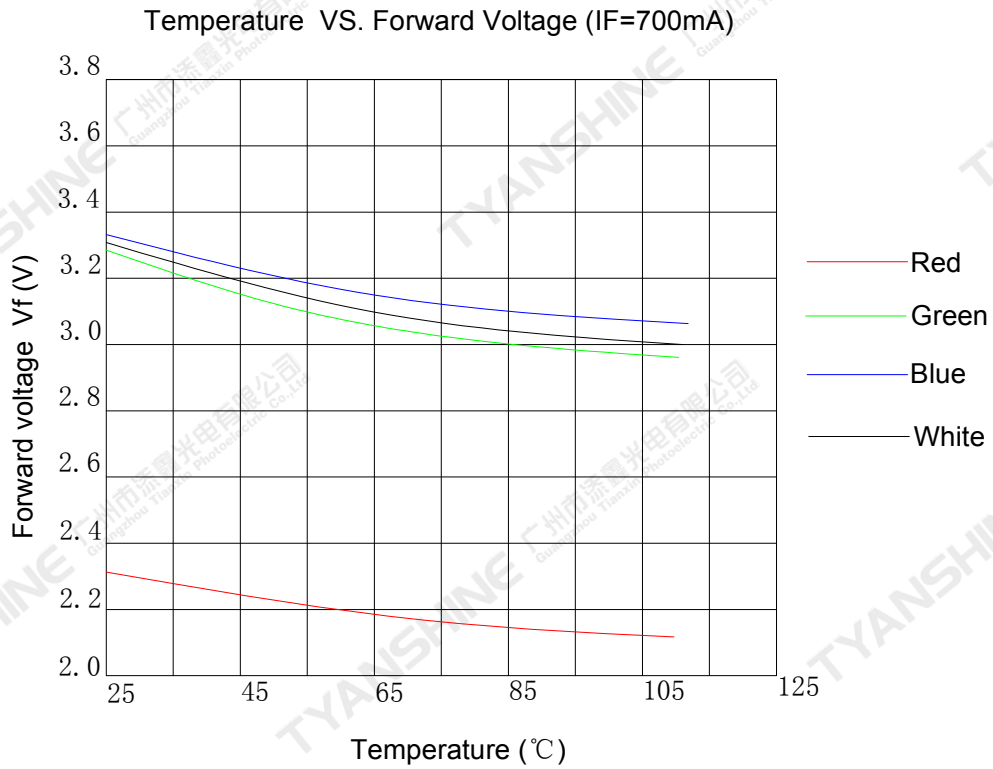
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- 4.Luminous flux measurement tolerance:±15%.
- 5.Forward voltage measurement tolerance:±0.15V.

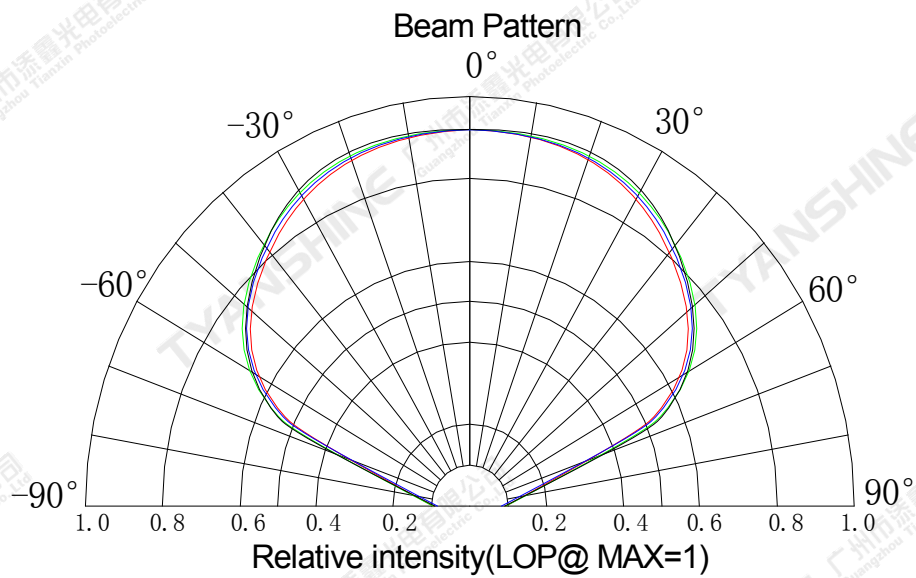
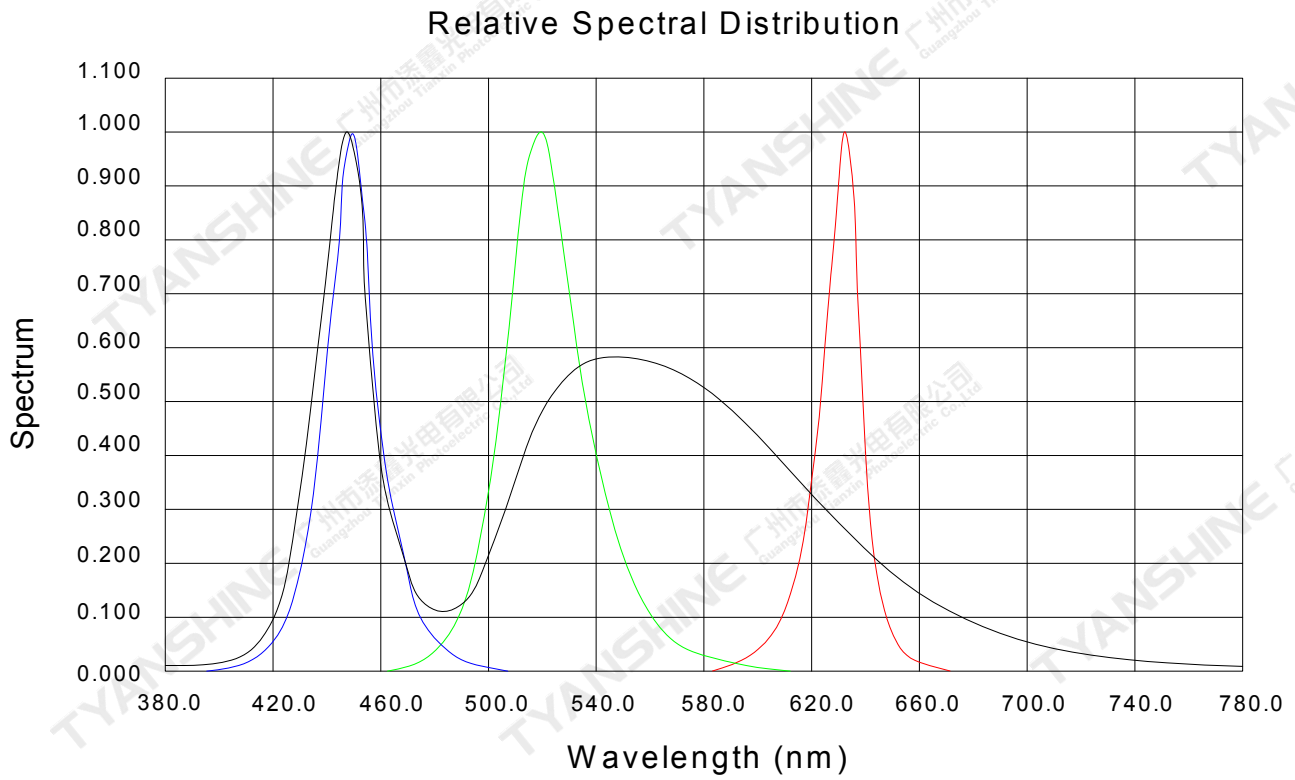
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Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)







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°.

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Usage Precautions

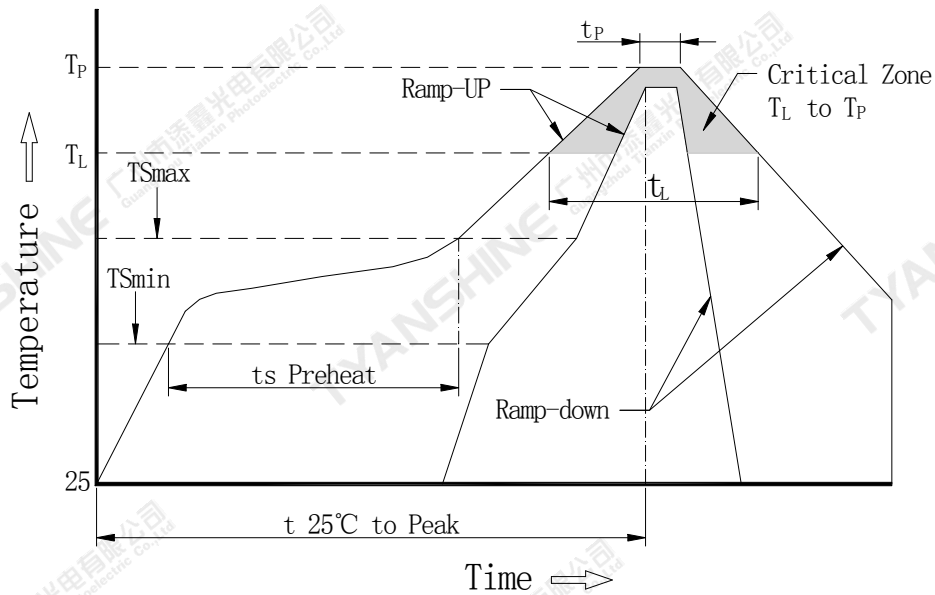
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



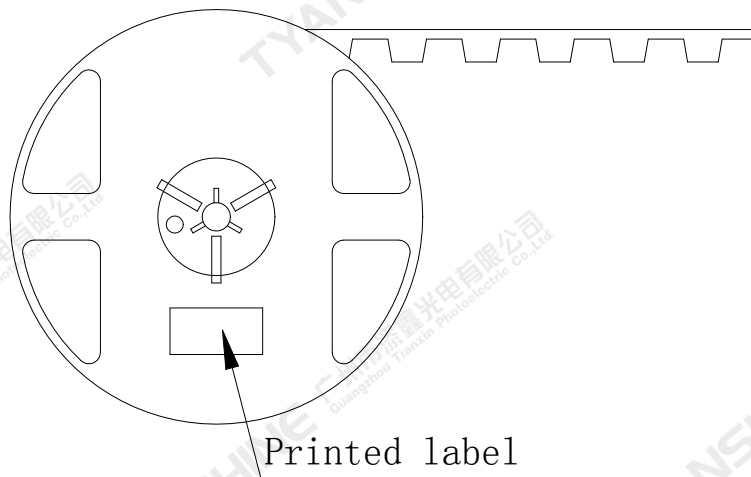
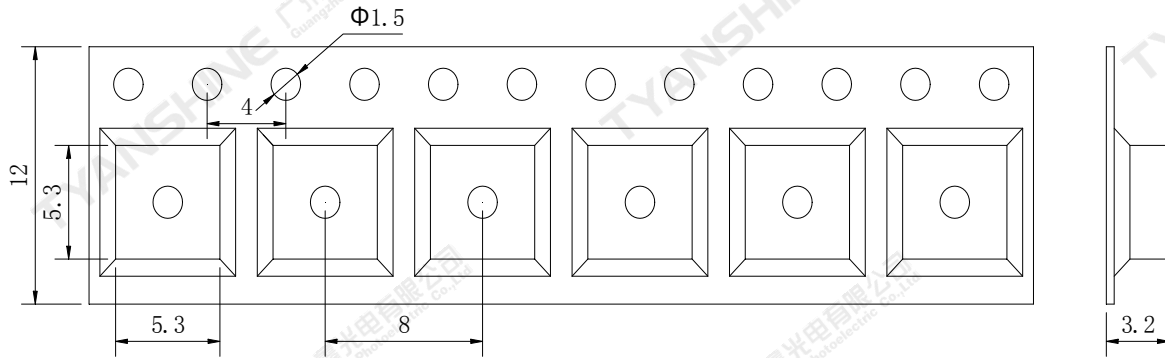
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)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