

TX-5050RGBW10FC120-NGVCND34-02B

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 700 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:

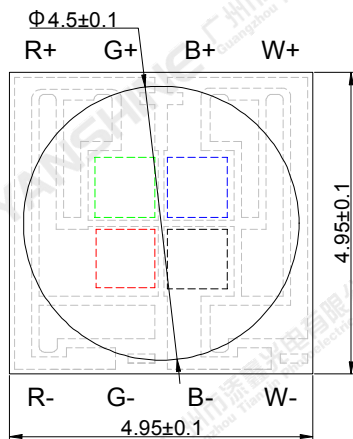
- ◆Red
- ◆Green
- ◆Blue
- ◆White

Applications:

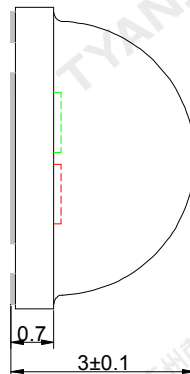
- ◆Auxiliary lighting
- ◆Ambient lighting
- ◆Architectural lighting

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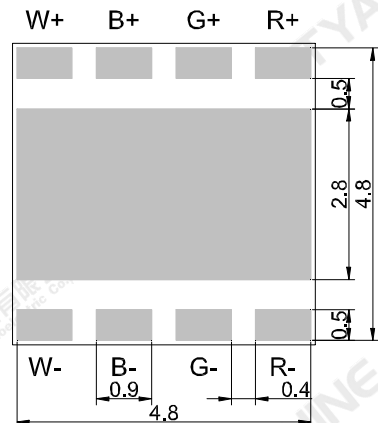
Package Dimensions:



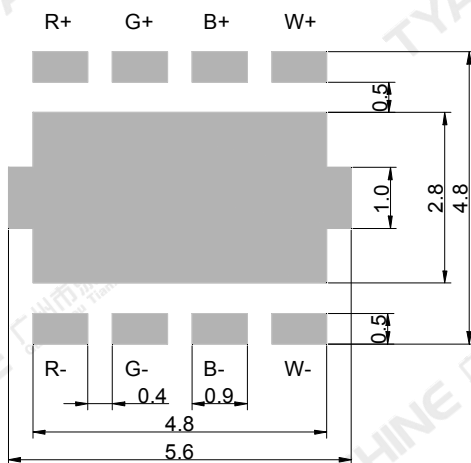
Top view



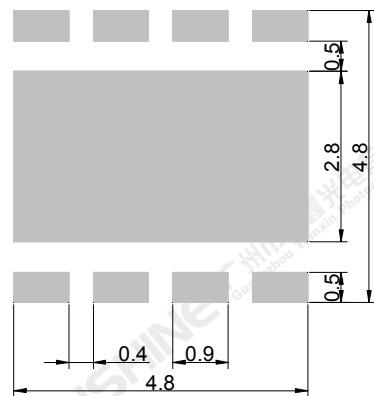
Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are $\pm 0.1\text{mm}$.

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Max Ratings	Unit
Forward Current	IF		700	mA
Reverse Voltage	VR		Not designed for reverse operation	V
Power Dissipation	PD	R	1890	mW
		G	2590	
		B	2590	
		W	2590	
Junction Temperature	Tj	R	115	℃
		G	150	
		B	150	
		W	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	Tstg		-20~65	℃
Operation Temperature	Topr		-40~100	

Notes:

- Specifications are subject to change without notice.
- Under the stipulated Characteristics parameters above, the life span of the LED is more than 50,000hours.
- 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.

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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	260	
Dominant Wavelength	λ_d		R	618	623	628	nm
			G	519	524	529	
			B	450	455	460	
Correlated Colour Temperature	CCT		W	5300	5600	6000	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	$V_R=7V$	R	—	—	5	μA
			G	—	—	5	
			B	—	—	5	
			W	—	—	5	
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	$V\Delta F/T$	If=700mA	R	—	-2	—	mV/℃
			G	—	-3.5	—	
			B	—	-2	—	
			W	—	-3	—	

White light Color coordinate filing (IF=700mA)

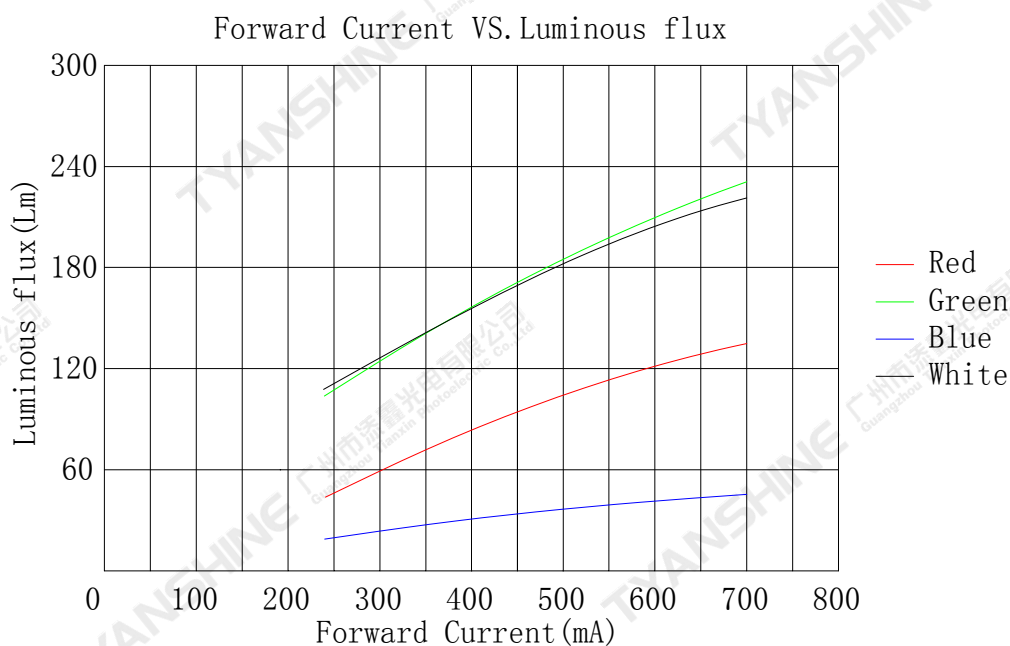
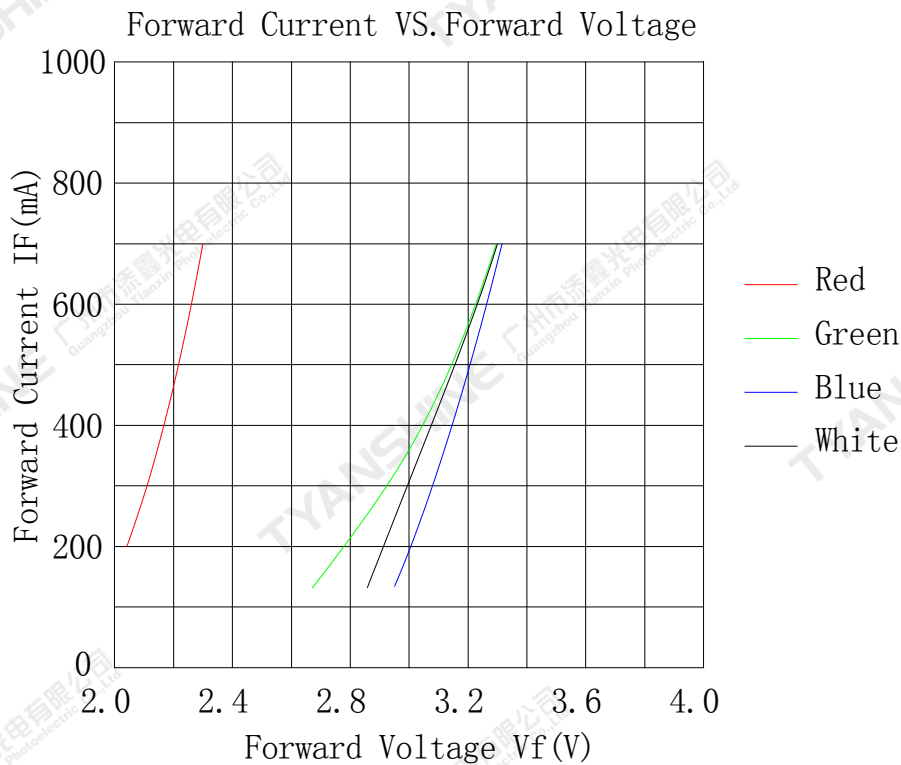
Grade	TC	P1		P2		P3		P4	
		X1	Y1	X2	Y2	X3	Y3	X4	Y4
2D	5300 - 5700K	0.3366	0.3379	0.3290	0.3311	0.3290	0.3427	0.3371	0.3499
2A	5700 - 6000K	0.3290	0.3293	0.3222	0.3243	0.3215	0.3350	0.3290	0.3417

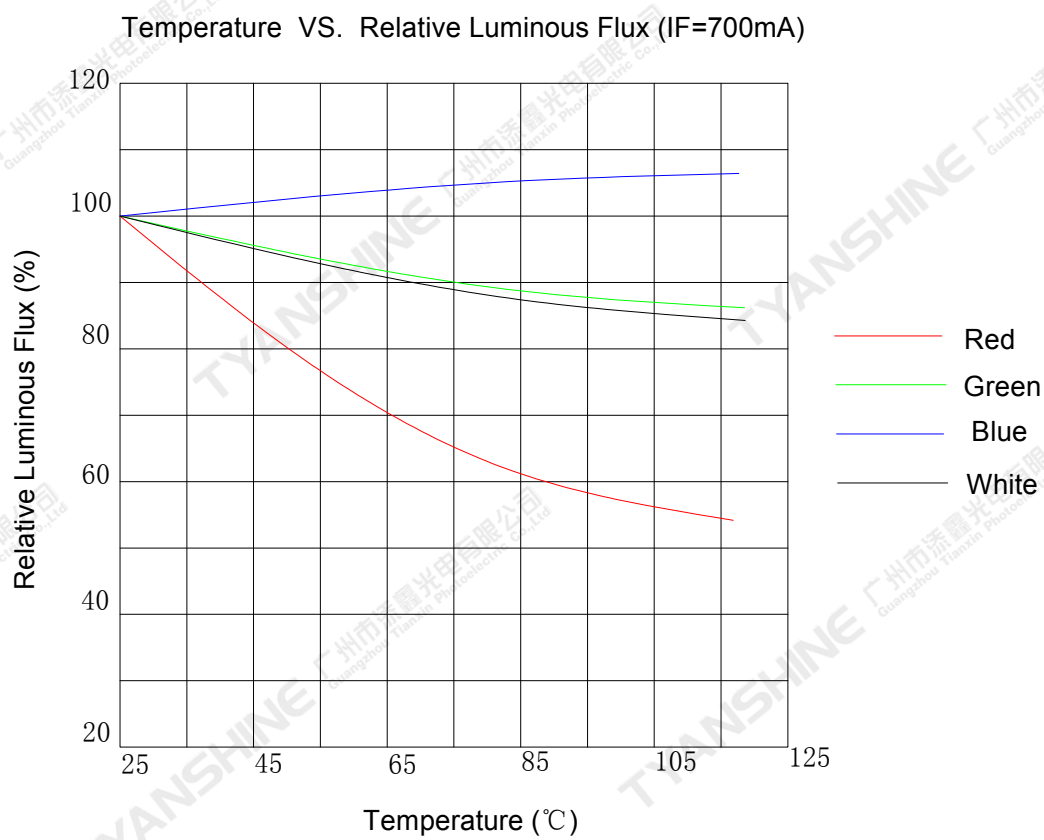
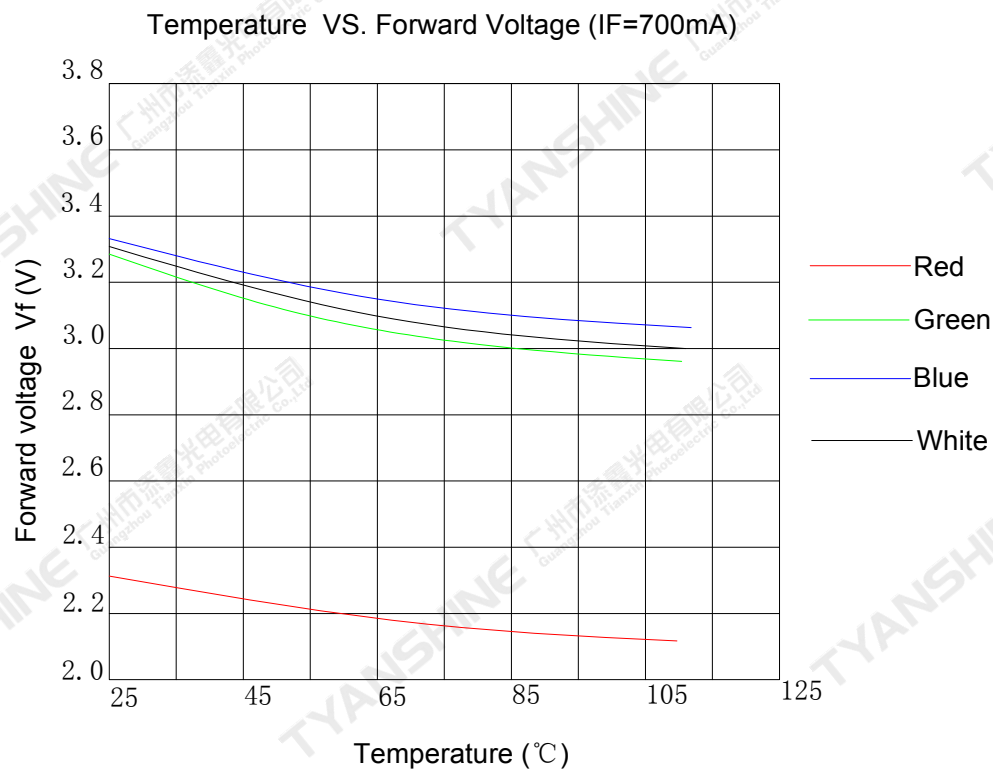
Notes:

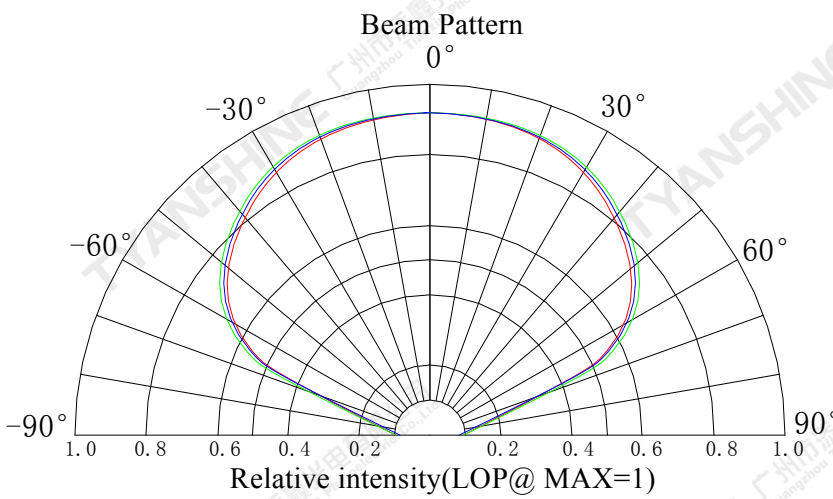
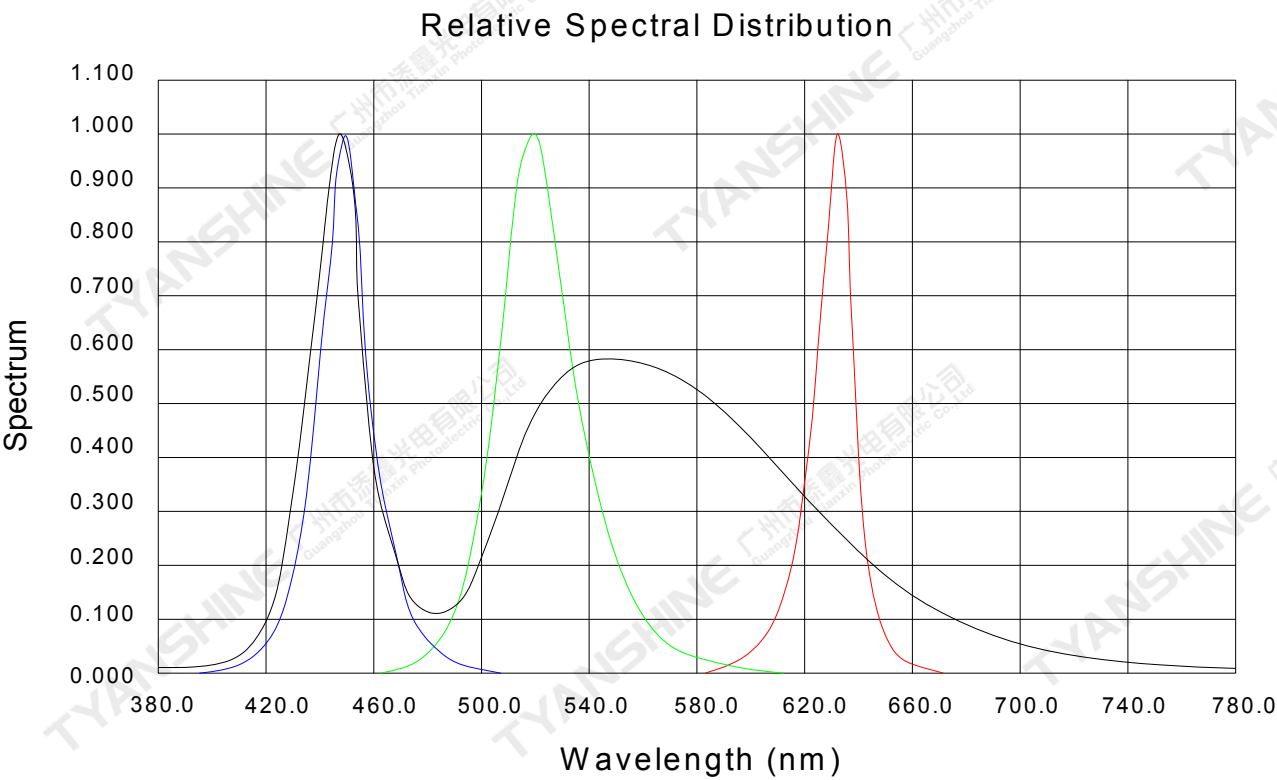
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.The dominant wavelength (λ_d) is derived from the CIE chromaticity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

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

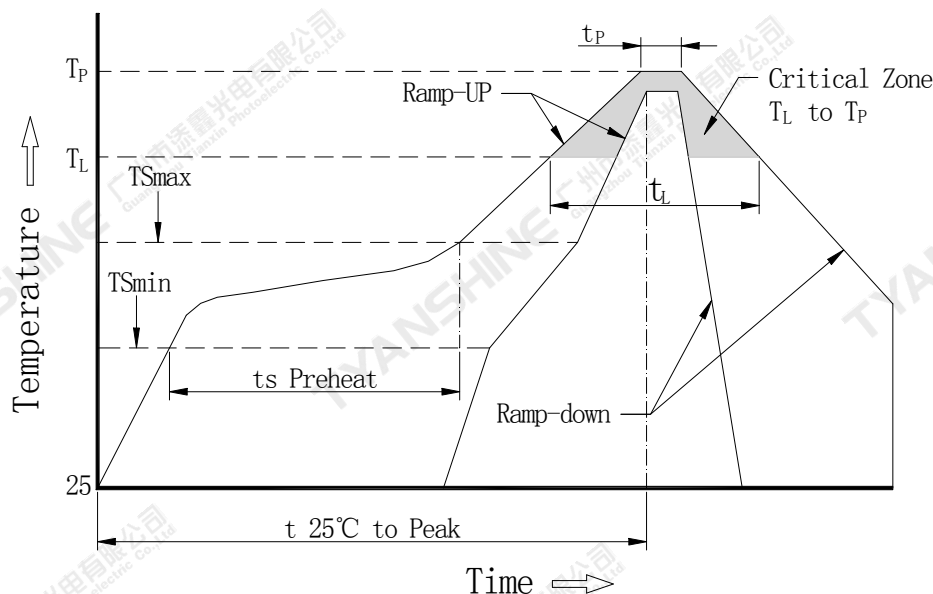
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



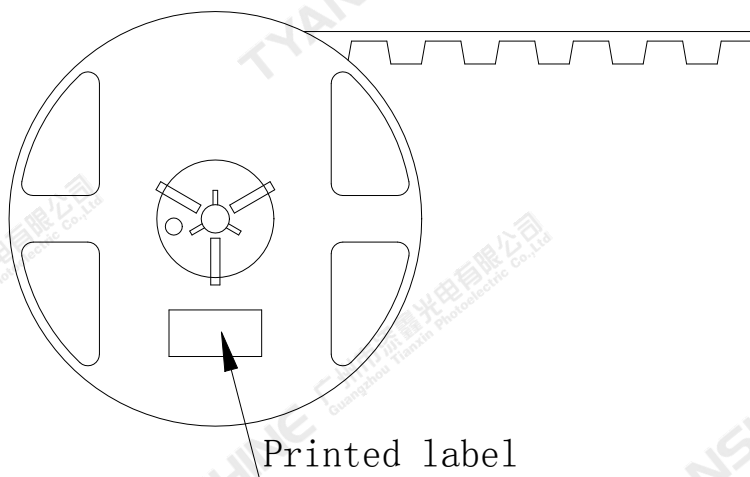
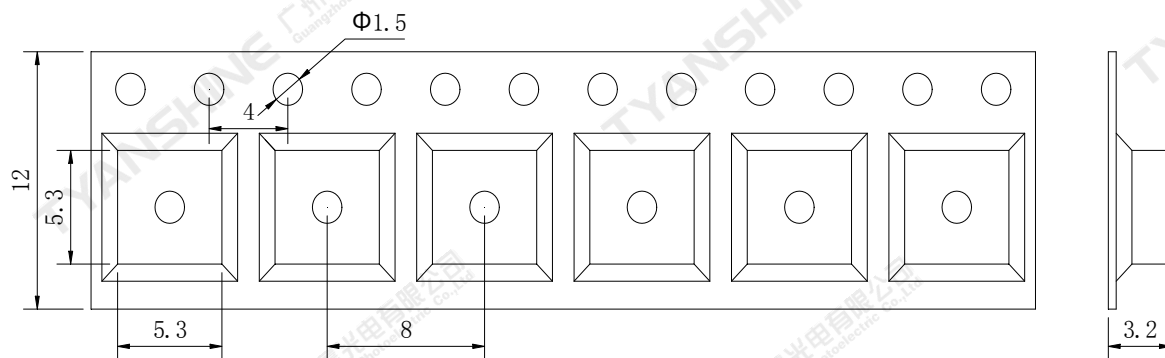
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)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