TX-5060RBGL50FC120-NUVENG-050R

PRODUCT SPECIFICATION

Features:

◆Provide uniform cross distribution of positive white and warm white dual color scheme, mixed pure.

◆High luminous output.

◆No UV.

◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

◆ Red:AlInGaP

◆Green: GaInN

◆Blue:GaInN

◆Lime:GaInN

Emitting Color:

◆Red（R）

◆Green（G）

◆Blue（B）

◆Lime（L）

Applications:

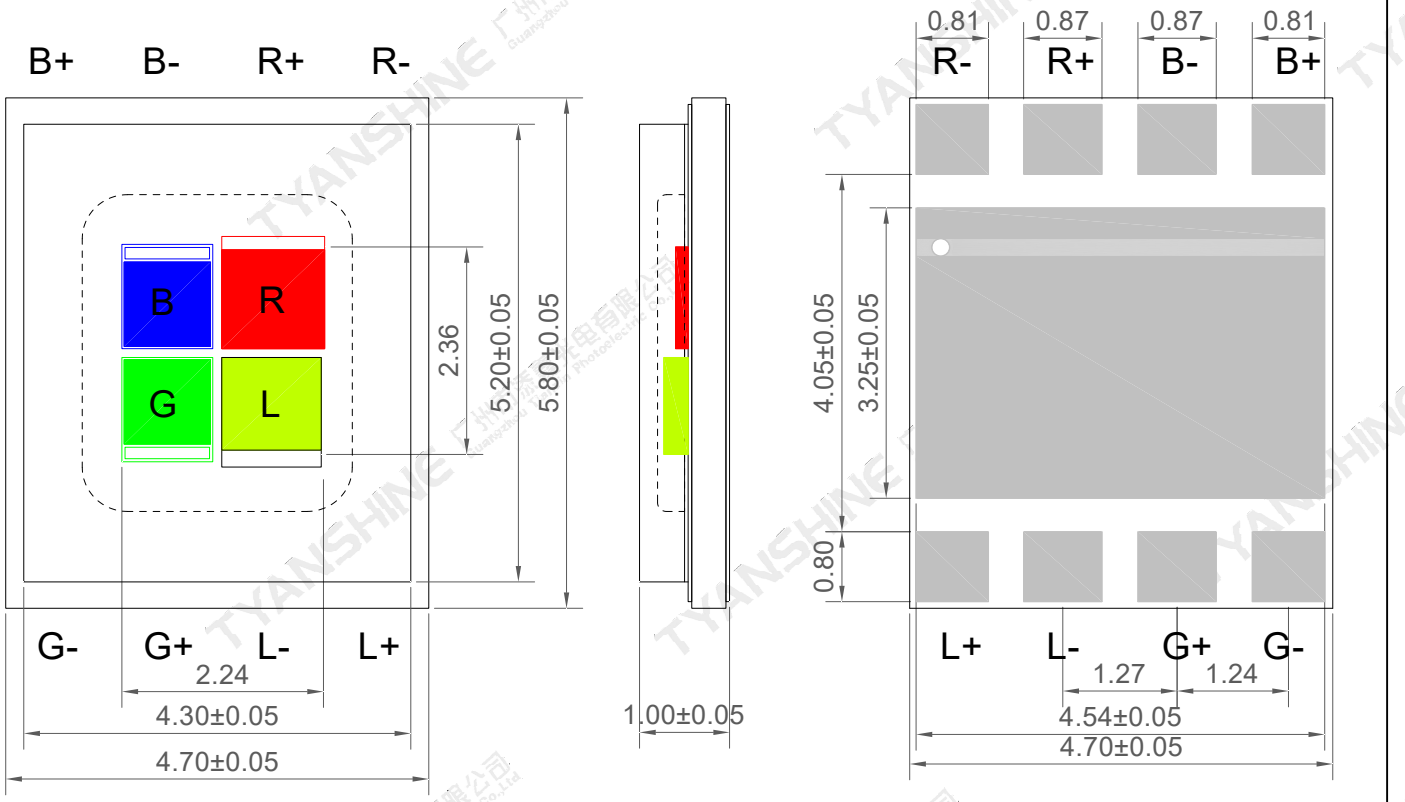
◆Auxiliary lighting

◆Ambient lighting

◆Architectural lighting

◆Entertainment lighting

Package Dimensions:



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	R	3.2	A
		B	3.5	
		G	3.5	
		L	3.5	
Reverse Voltage	V_R		Not designed for reverse operation	V
Power Dissipation	P_D	R	8.32	W
		B	12.25	
		G	12.25	
		L	12.25	
Junction Temperature	Tj	R	125	℃
		B	150	
		G	150	
		L	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature(Only for LED, not including packaging)	T_{stg}		-40~+85	℃
Operation Temperature	T_{opr}		-40~+85	

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	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	If=1.0A	R	105	125	140	lm
			B	35	40	45	
			G	210	245	285	
			L	300	355	400	
Forward Voltage	V_f		R	2.0	—	2.6	V
			B	2.9	—	3.5	
			G	2.9	—	3.5	
			L	2.9	—	3.5	
Dominant Wavelength	λd		R	621	624	627	nm
			B	447	450	453	
			G	526	529	532	
Peak-emission Wavelength	λp		R	629	634	639	nm
			B	440	445	450	
			G	517	522	527	
Correlated Colour Temperature	CCT		L	4020	—	4280	K
Color Rendering Index	Ra		L	—	—	—	—
Viewing Angle at 50％IV	$2\theta_{1/2}$		—	—	120	—	Deg
Reverse Current	V_R=5V		R	—	—	2	μA
			B	—	—	2	
			G	—	—	2	
	—		L	Not designed for reverse operation			
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	—	0.7	—	K/W
Temperature Coefficient of Voltage	V△F/T	If=1.0A	R	—	-1.67	—	mV/℃
			B	—	-1.75	—	
			G	—	-1.75	—	
			L	—	-1.67	—	

Notes:

1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

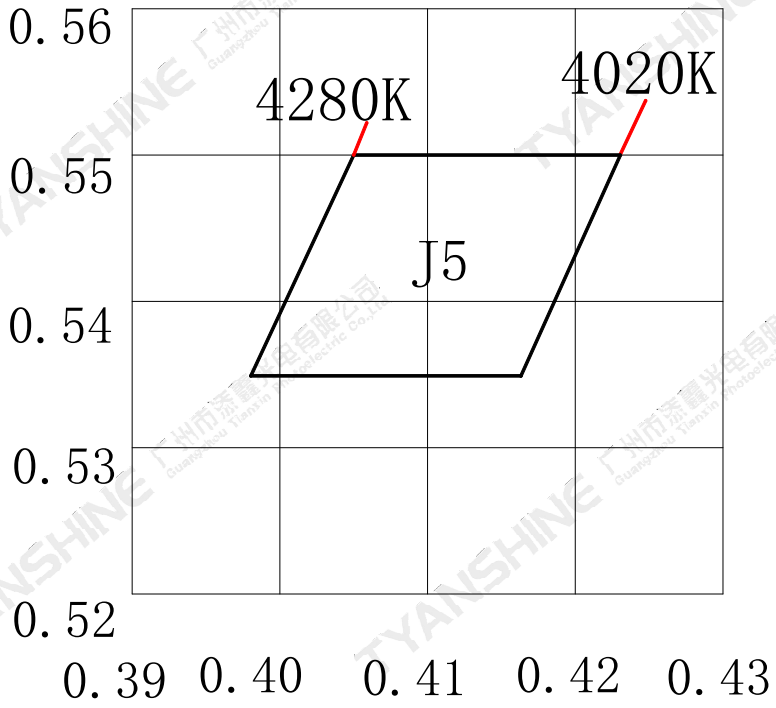
2.$\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3.Luminous flux measurement tolerance:±10%.

4.Forward voltage measurement tolerance:±3%.

5.Ra measurement tolerance:±2.

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

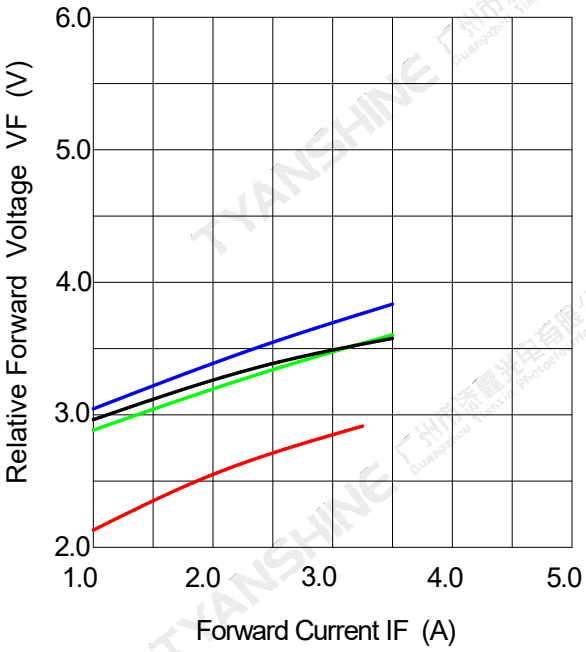


Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
J5	4020K	4280K	0.4164	0.5350	0.4231	0.5501	0.4050	0.5501	0.3981	0.5350

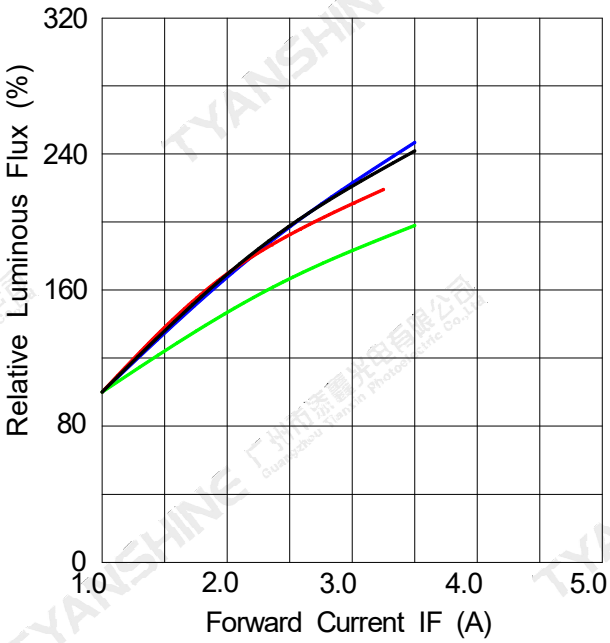
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

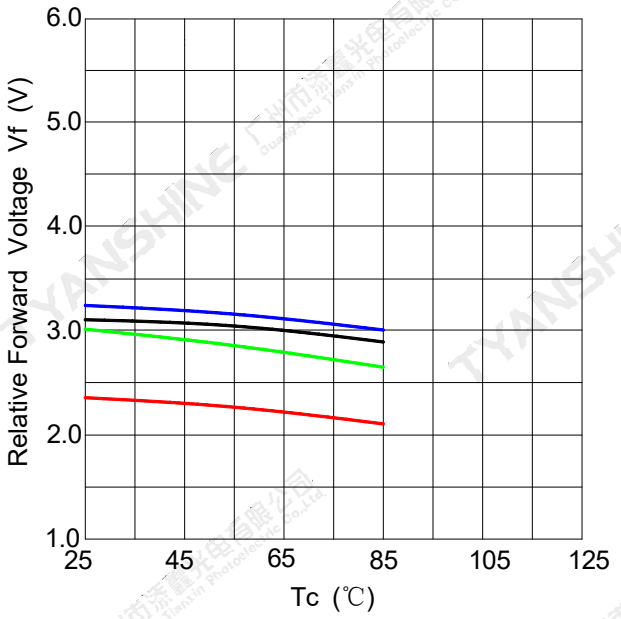
Forward Current VS. Relative Forward Voltage



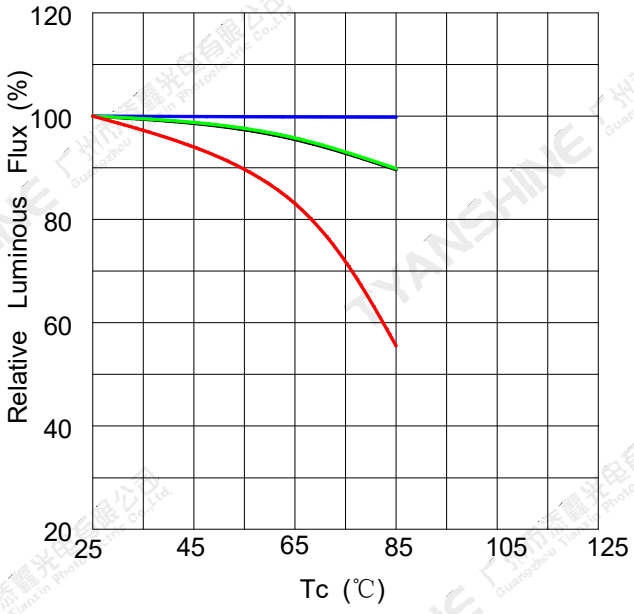
Forward Current VS. Relative Luminous Flux



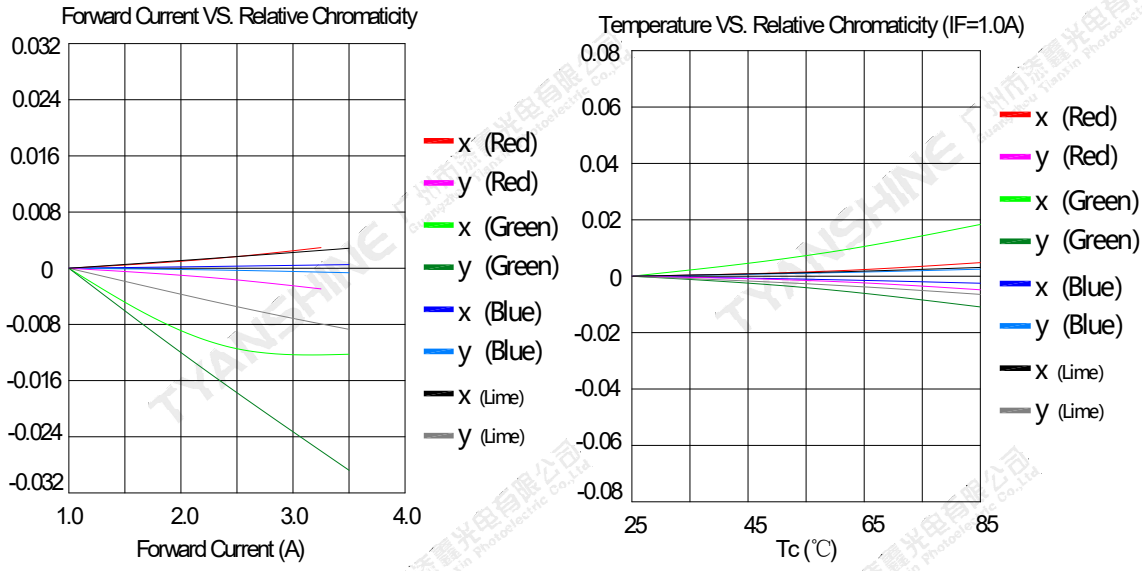
Temperature VS. Relative Forward Voltage (IF=1.0A)

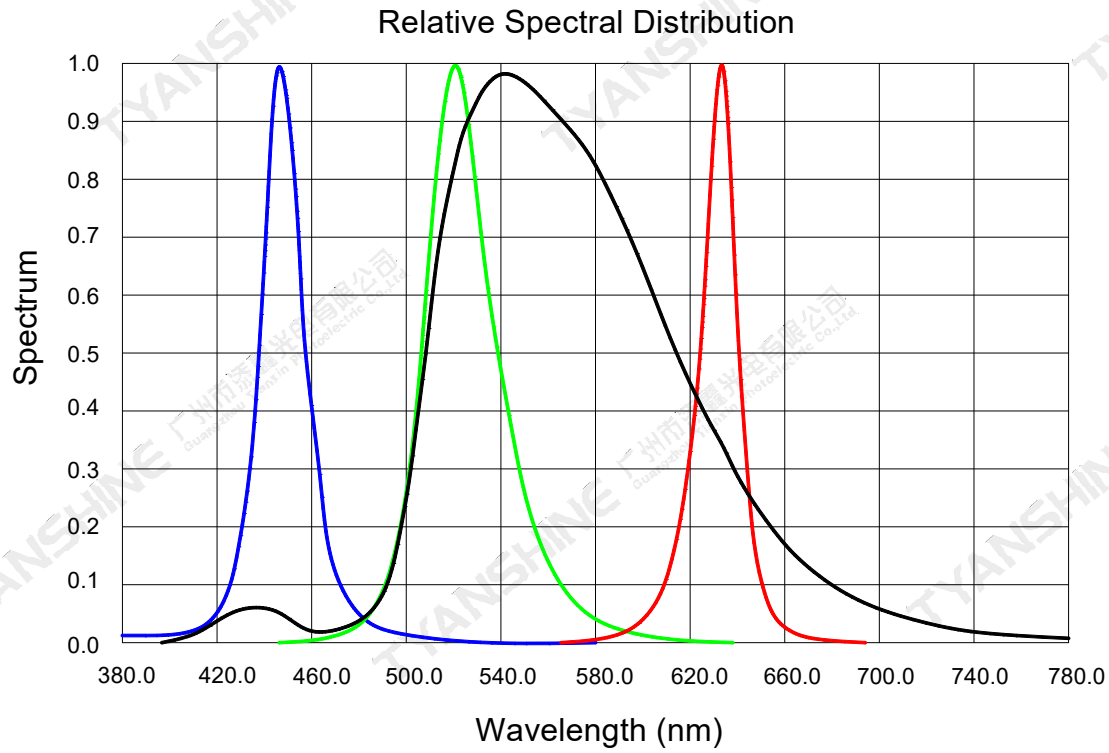


Temperature VS. Relative Luminous Flux (IF=1.0A)



Notes: Red（R）; Green（G）; Blue（B）; Lime（L）;





Notes: Red（R）; Green（G）; Blue（B）; Lime（L）;

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°.

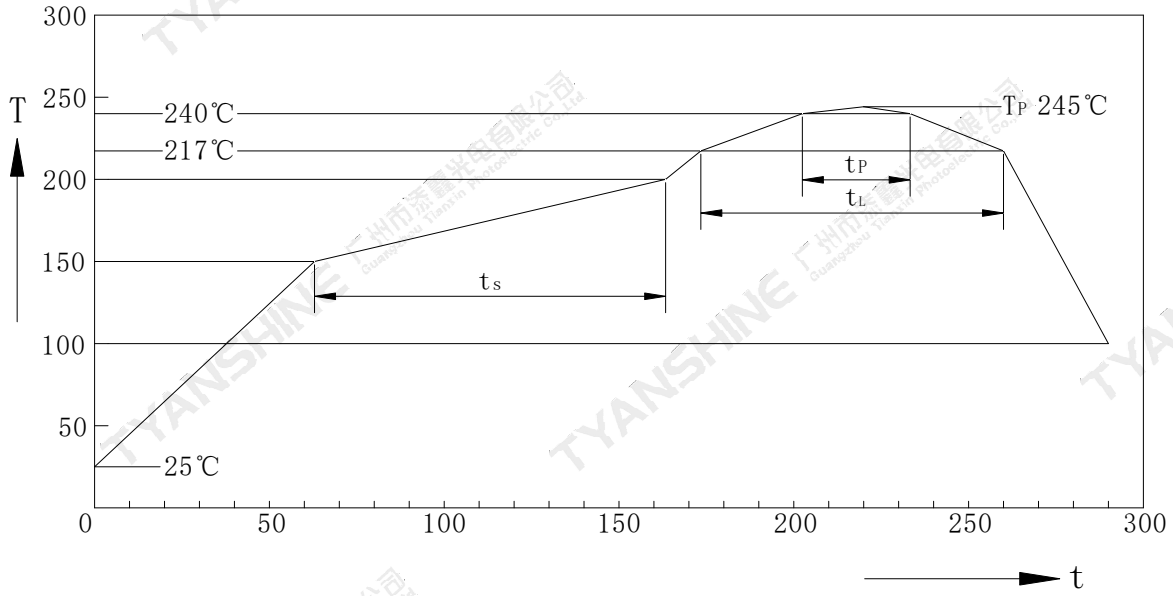
Usage Precautions

Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition



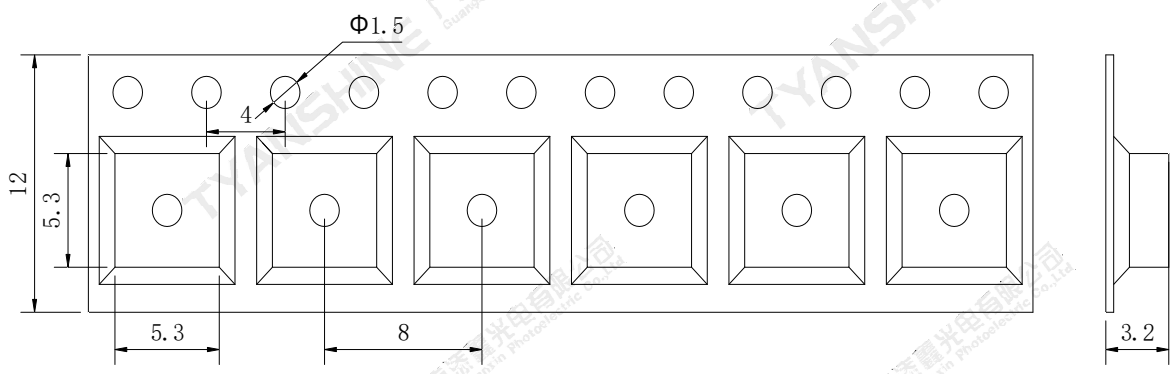
Profil-Charakteristik Profile Feature	Symbol	Pb-Free(SnAgCu)Assembly			Einheit Unit
		Minimum	Recommendation	Maximum	
Ramp-up Rate to Preheat 25℃ to 150℃	-	-	2	3	K/s
Time t_s T_{Smin} to T_{Smax}	t_s	60	100	120	s
Ramp-up Rate to Peak T_{Smax} to T_p	-	-	2	3	K/s
Liquidus Temperature	T_L	217			℃
Time above Liquidus temperature	t_L	-	80	100	s
Peak Temperature	T_P	-	245	255	℃
Time within 5℃ of the specified peak temperature T_p-5 K	t_P	10	20	30	s
Ramp-down Rate T_p to 100℃	-	-	3	6	K/s
Time 25℃ to T_p	-	-	-	480	-

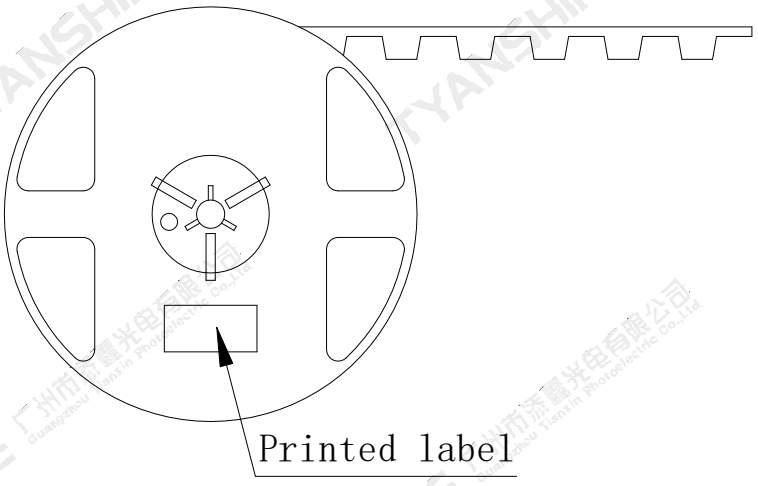
Note:

All temperatures refer to topside of the package, measured on the package body surface.

Dimensions For Cannulation And Packaging

Quantity:1000PCS





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.