TX-5060RGBA20FC120-NUVCNG-02A

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

◆PC Amber:GaInN

Emitting Color:

◆Red（R）

◆Green（G）

◆Blue（B）

◆PC Amber（A）

Applications:

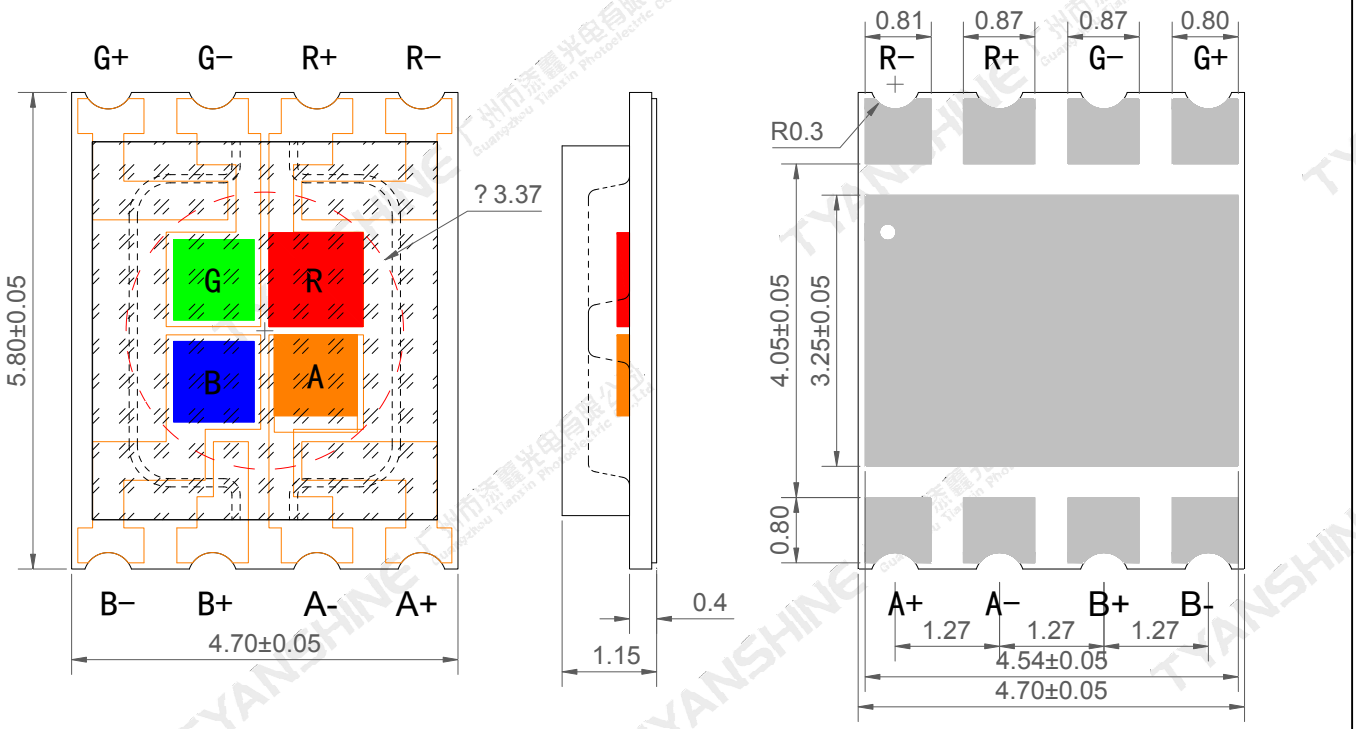
◆Auxiliary lighting

◆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	1.5	A
		G	1.5	
		B	1.5	
		A	2.0	
Reverse Voltage	V_R		Not designed for reverse operation	V
Power Dissipation	P_D	R	3.8	W
		G	5.6	
		B	5.1	
		A	6.7	
Junction Temperature	Tj	R	115	℃
		G	150	
		B	150	
		A	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	T_{stg}		-40~+70	℃
Operation Temperature	T_{opr}		-30~+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,IF=1.0A)

Parameter	Symbol	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	R	85	—	110	lm
		G	180	—	230	
		B	35	—	50	
		A	155	—	195	
Forward Voltage	V_f	R	2.0	2.4	2.8	V
		G	3.0	3.4	3.8	
		B	3.0	3.2	3.8	
		A	2.9	3.2	3.7	
Dominant Wavelength	λd	R	618	623	628	nm
		G	520	525	530	
		B	450	455	460	
Peak-emission Wavelength	λp	R	628	633	638	nm
		G	515	520	525	
		B	445	420	455	
Correlated Colour Temperature	CCT	A	1770	—	1850	K
Viewing Angle at 50％IV	$2\theta_{1/2}$	—	—	120	—	Deg
Reverse Current	I_R :V_R=10V	R	—	—	2	μA
	I_R: V_R=7V	G	—	—	2	
		B	—	—	2	
	I_R	A	Not designed for reverse operation			
Thermal Resistance Junction to Case	$R\theta_{J-C}$	R	—	3.7	—	K/W
		G	—	11	—	
		B	—	11	—	
		A	—	8.6	—	

Notes:

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

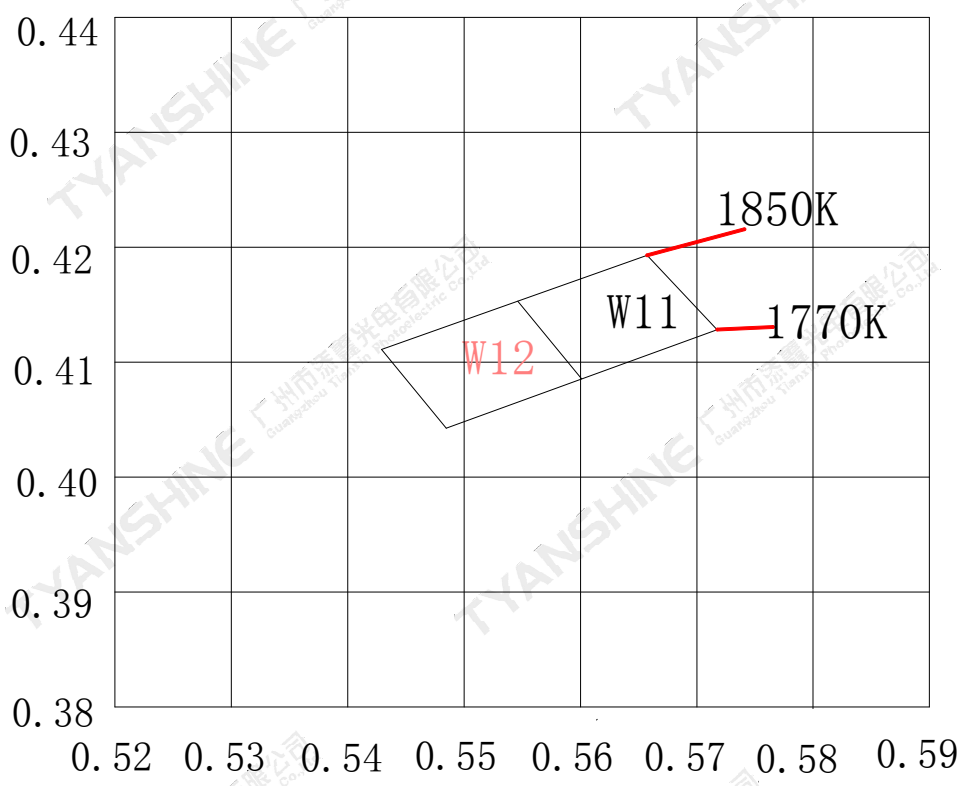
2.$\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3.Luminous flux measurement tolerance:±10%.

4.Forward voltage measurement tolerance:±3%.

5.Ra measurement tolerance:±2.

PC Amber light Color coordinate filing IF=1.0A，Tc=25℃

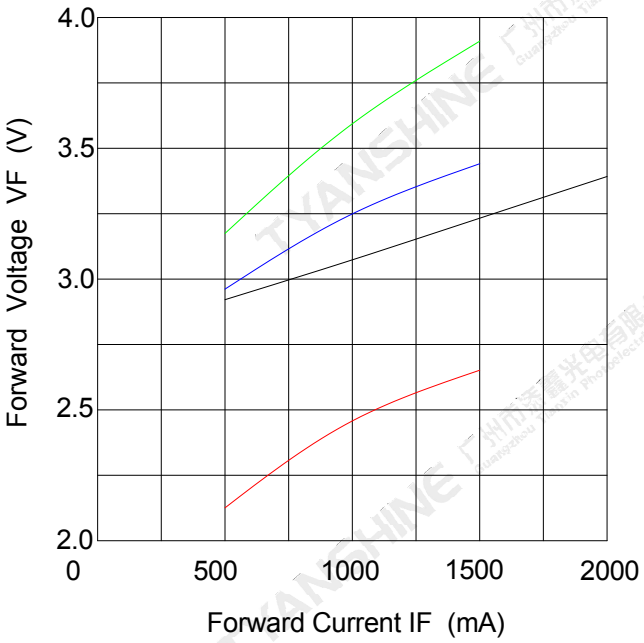


Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
W11	1770-1850K	0.5546	0.4154	0.56	0.4088	0.5718	0.413	0.5658	0.4194	W11
W12	1770-1850K	0.5429	0.4112	0.5485	0.4044	0.56	0.4088	0.5546	0.4154	W12

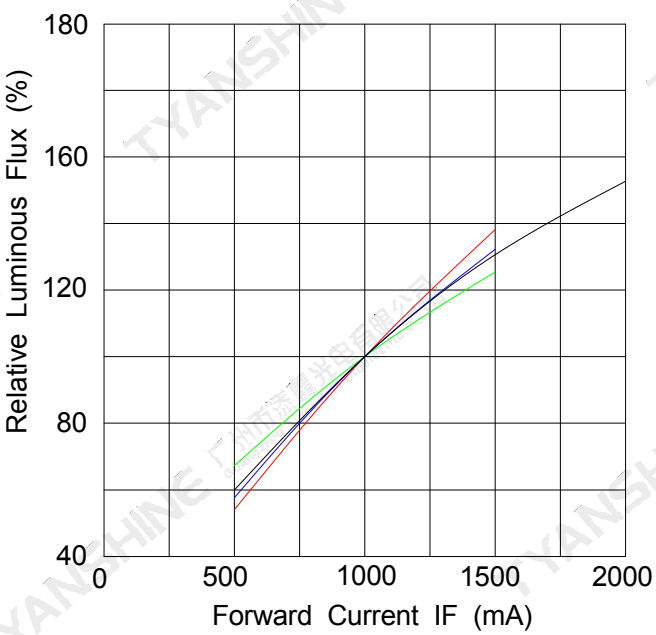
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

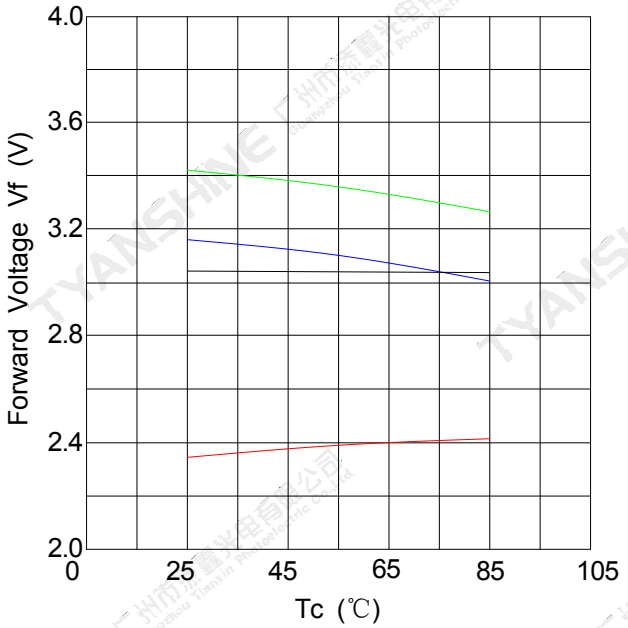
Forward Current VS. Relative Forward Voltage



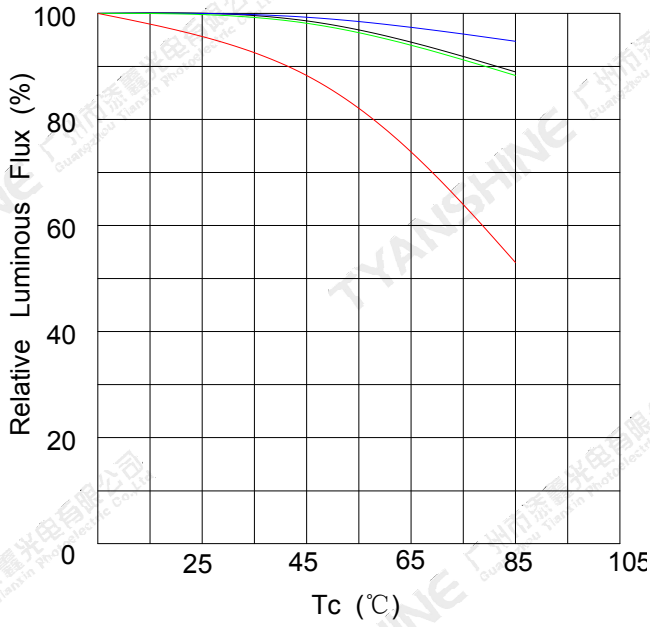
Forward Current VS. Relative Luminous Flux



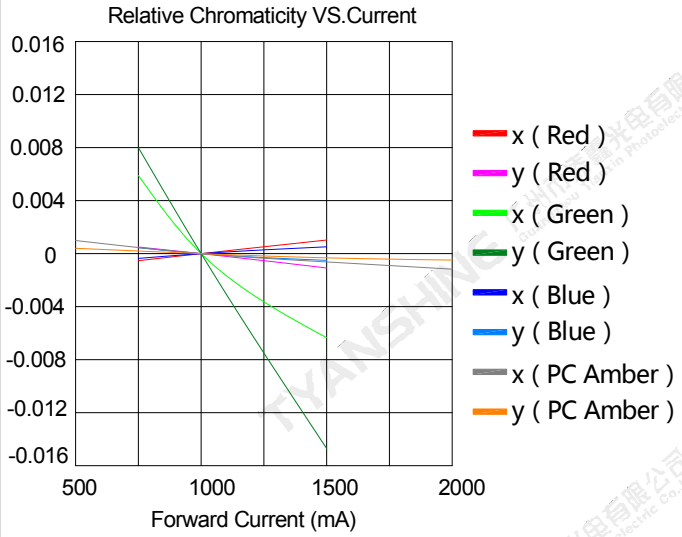
Temperature VS. Relative Luminous FLux (IF=1.0A)

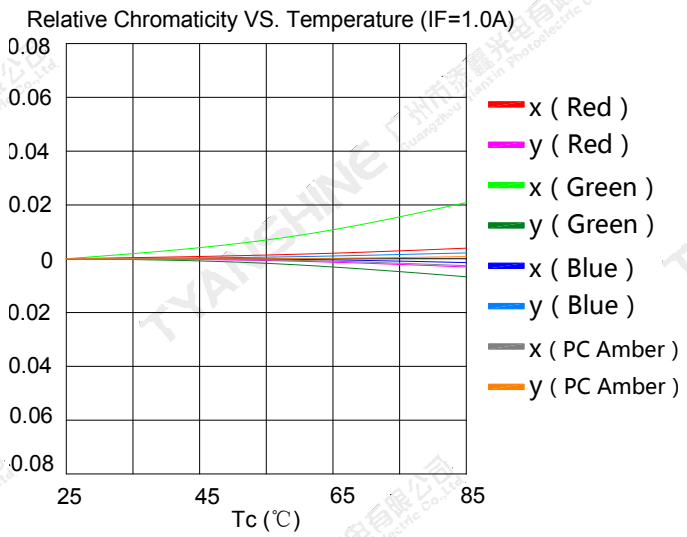


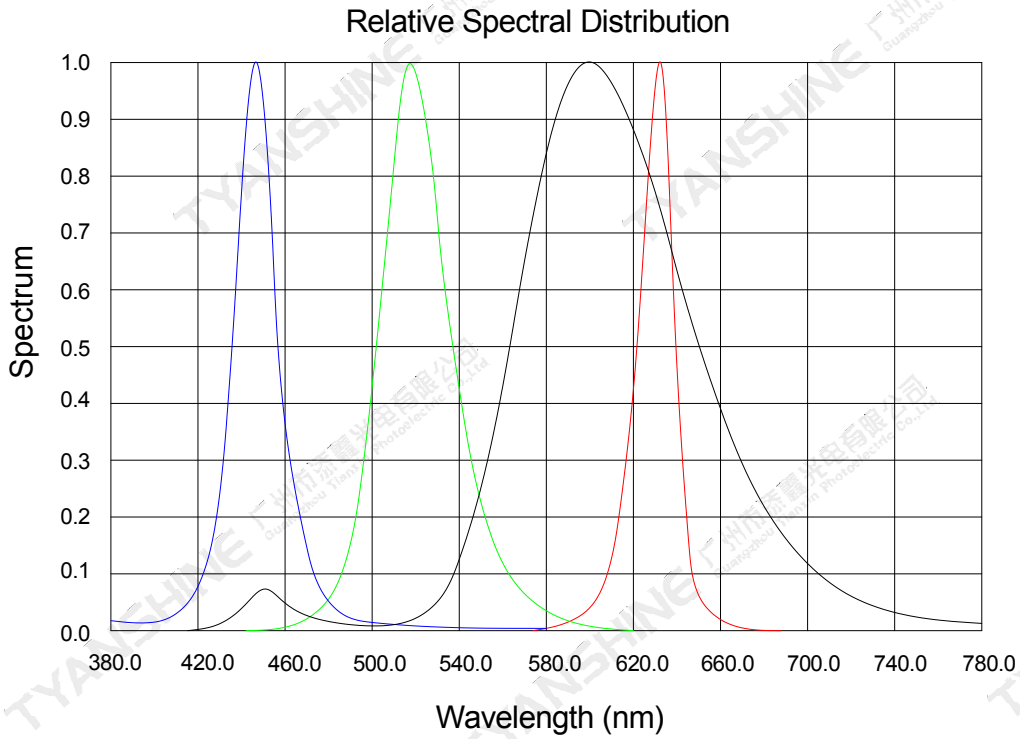
Temperature VS. Forward Voltage (IF=1.0A)



Notes: Red (R); Green (G); Blue (B); PC Amber (A);







Notes: Red（R）; Green（G）; Blue（B）; PC Amber（A）;

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

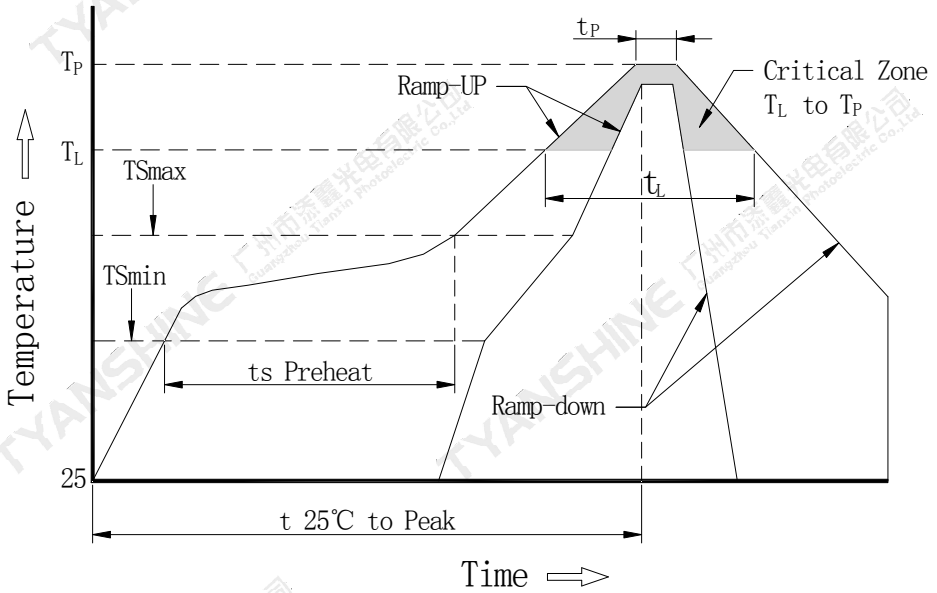
Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



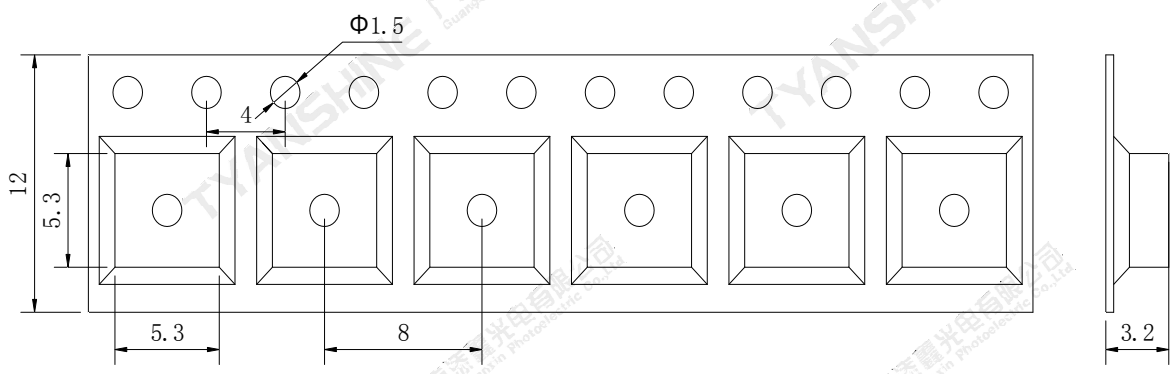
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (Ts_{max} to T_p)	3℃/second max.
Preheat: Temperature Min (Ts_{min})	100℃
Preheat: Temperature Max (Ts_{max})	150℃
Preheat: Time (Ts_{min} to Ts_{max})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183℃
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	225℃
Time Within 5℃ of Actual Peak Temperature (T_P)	10-30 seconds
Ramp-Down Rate	6℃/second max.
Time 25℃ to Peak Temperature	6 minutes max.

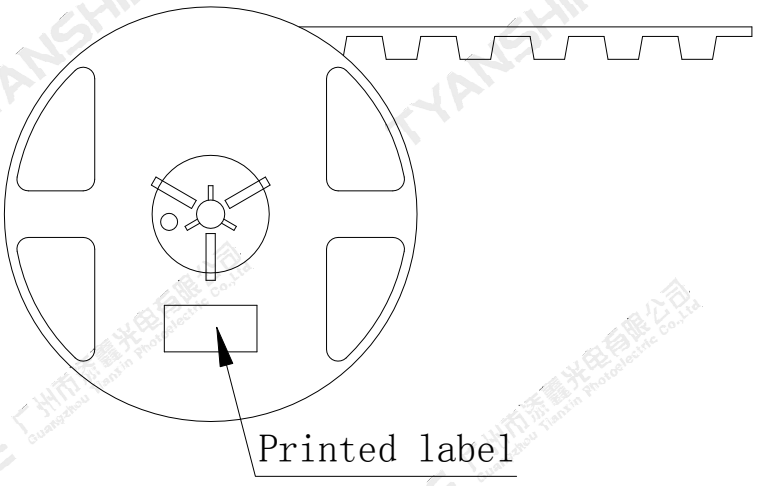
Note:

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, Irre sponsible of the Company.