

TX-3535RGBS2FC120-OGHCND34-01CH80

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 150mA
- ◆High luminous output
- ◆No UV

Chip Material:

- ◆Red: AlGaInP
- ◆Green: GaN
- ◆Blue: GaN
- ◆Warm white: GaN

Lens Color:

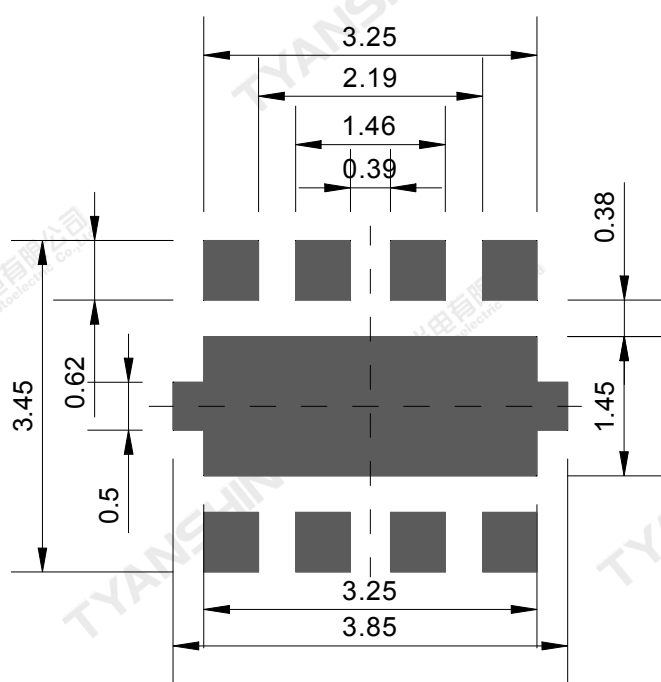
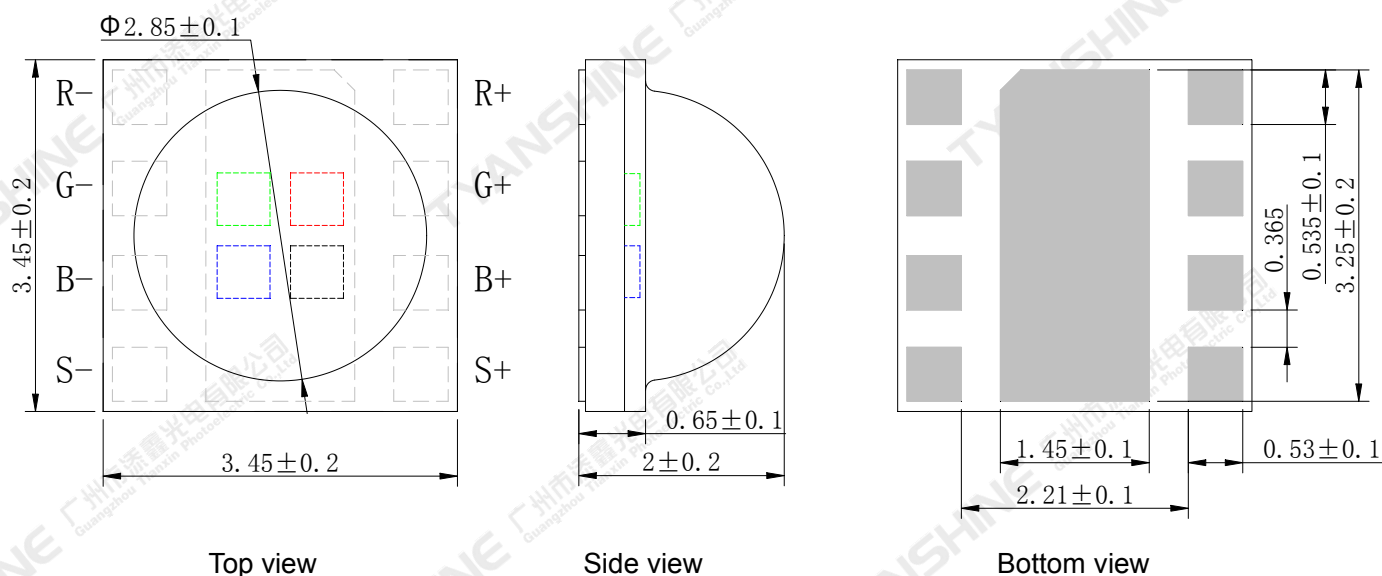
- ◆Water clear

Applications:

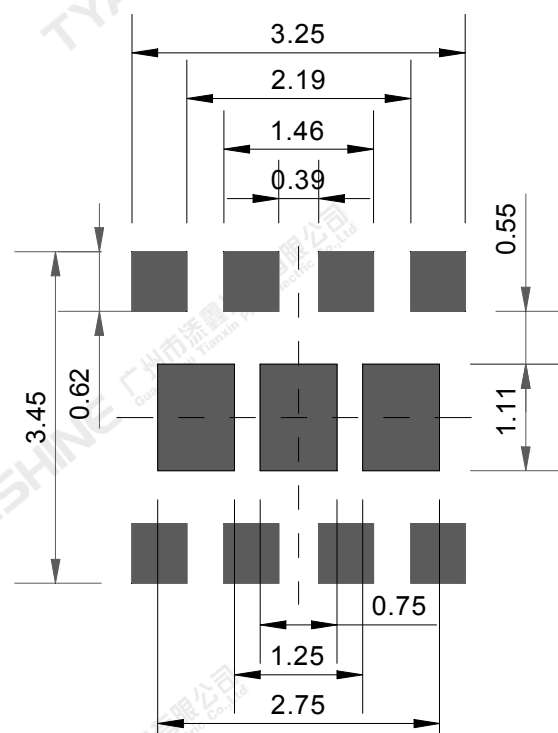
- ◆Portable flashlight
- ◆Garden lighting
- ◆General lighting

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Package Dimensions:



Recommended solder pad



Recommended stencil pattern

Notes:

1. All dimensions are in millimeters .
2. Tolerances unless otherwise mentioned are ± 0.1 mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Max Ratings	Unit
Forward Current	IF		150	mA
Reverse Voltage	VR		Not designed for reverse operation	V
Power Dissipation	PD	R	375	mW
		G	510	
		B	525	
		S	525	
Junction Temperature	Tj	R	115	℃
		G	150	
		B	150	
		S	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	Tstg		-40~70	℃
Operation Temperature	Topr		-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.

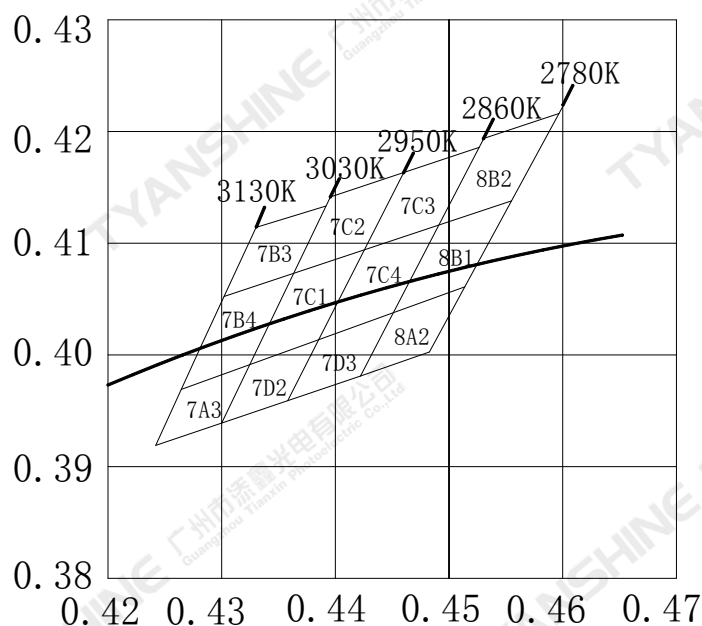
4.The temperature of PCB copper foil within 3mm from the lamp bead shall not exceed 105 ℃. If the input power reaches more than 80% of the maximum input power, the temperature of copper foil within this range shall be controlled within 85 ℃.

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Electrical Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	If=150mA	R	16	22	26	lm
			G	22	28	35	
			B	6	9	12	
			S	25	30	35	
Dominant Wavelength	λ_d		R	617	622	627	nm
			G	521	526	531	
			B	460	465	470	
Correlated Colour Temperature	CCT		S	2780	2950	3130	K
Color Rendering Index	Ra		S	80	82.5	85	—
Peak-emission Wavelength	λ_p		R	624	629	634	nm
			G	515	520	525	
			B	455	460	465	
Spectral Line Half-Width	$\Delta\lambda$		R	15	17.5	20	nm
			G	28	33	43	
			B	19	22	25	
			S	104	110	116	
Forward Voltage	V_f		R	1.9	2.2	2.5	V
			G	2.7	3.0	3.4	
			B	2.8	3.1	3.5	
			S	2.8	3.1	3.5	
Reverse Current	I_R	$V_R=5V$	R	—	—	2	μA
			G	—	—	2	
			B	—	—	2	
			S	—	—	2	
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	R	—	14	—	K/W
			G	—	14	—	
			B	—	14	—	
			S	—	14	—	
			Total thermal resistance	—	7.5	—	
Temperature Coefficient of Voltage	$V\Delta F/T$	If=150mA	R	—	-2.7	—	mV/℃
			G	—	-3.9	—	
			B	—	-1.6	—	
			S	—	-1.6	—	

White light Color coordinate filing (IF=150mA)



Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
8A2	2780K	2860K	0.4483	0.4003	0.4422	0.3981	0.4451	0.4038	0.4514	0.4061
8B1			0.4514	0.4061	0.4451	0.4038	0.4491	0.4116	0.4555	0.4138
8B2			0.4555	0.4138	0.4491	0.4116	0.4531	0.4194	0.4597	0.4216
7D3	2860K	2950K	0.4422	0.3981	0.4358	0.3959	0.4385	0.4014	0.4451	0.4038
7C4			0.4451	0.4038	0.4385	0.4014	0.4425	0.4094	0.4491	0.4116
7C3			0.4491	0.4116	0.4425	0.4094	0.4460	0.4163	0.4527	0.4186
7D2	2950K	3030K	0.4358	0.3959	0.4300	0.3939	0.4325	0.3991	0.4385	0.4014
7C1			0.4385	0.4014	0.4325	0.3991	0.4363	0.4073	0.4425	0.4094
7C2			0.4425	0.4094	0.4363	0.4073	0.4396	0.4141	0.4460	0.4163
7A3	3030K	3130K	0.4300	0.3939	0.4242	0.3919	0.4264	0.3969	0.4325	0.3991
7B4			0.4325	0.3991	0.4264	0.3969	0.4302	0.4052	0.4363	0.4073
7B3			0.4363	0.4073	0.4302	0.4052	0.4330	0.4115	0.4392	0.4133

Notes:

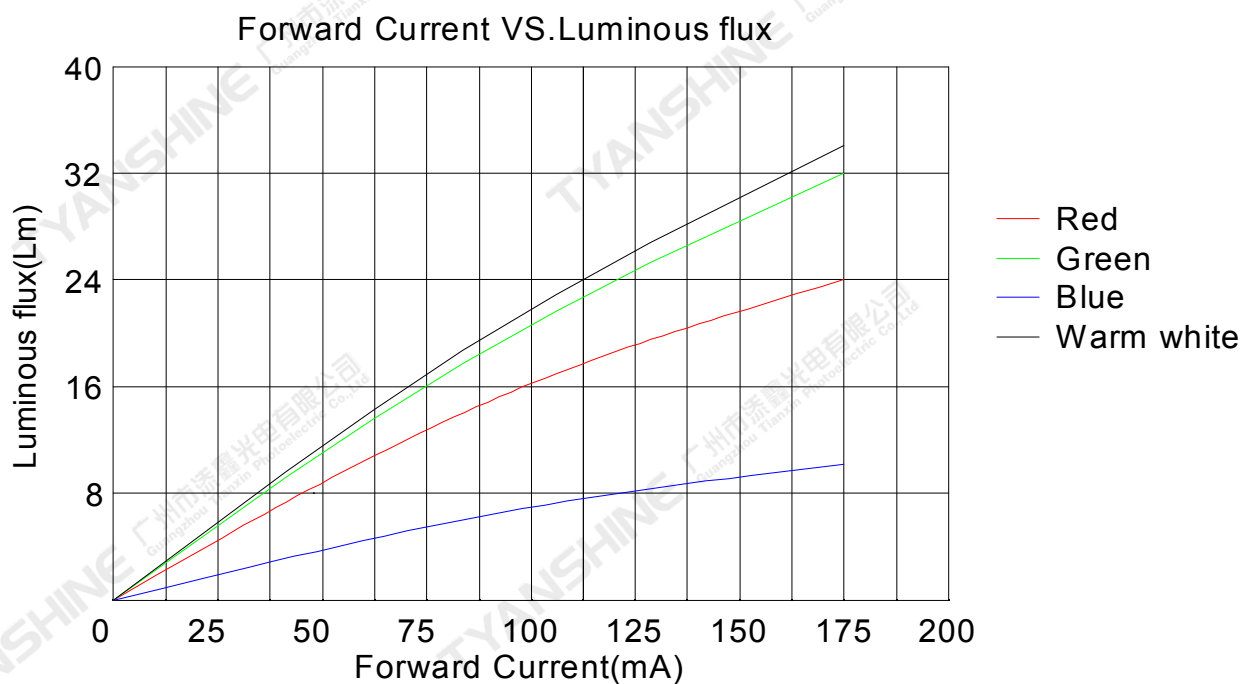
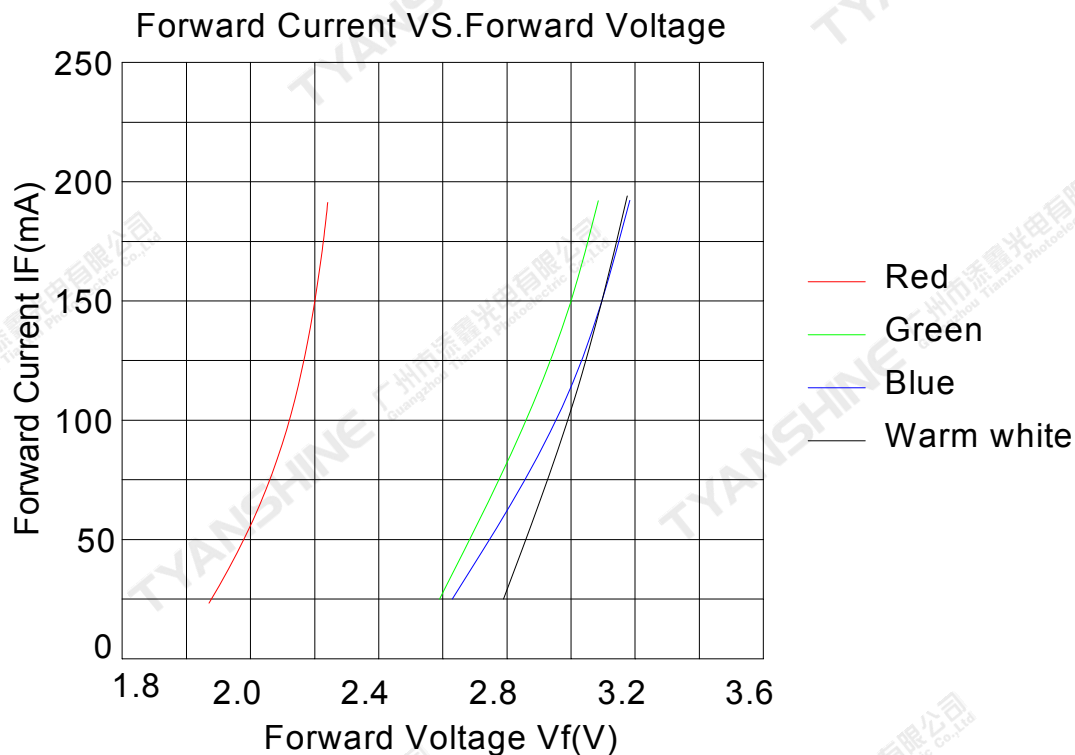
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ_d) is derived from the CIE chromaticity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

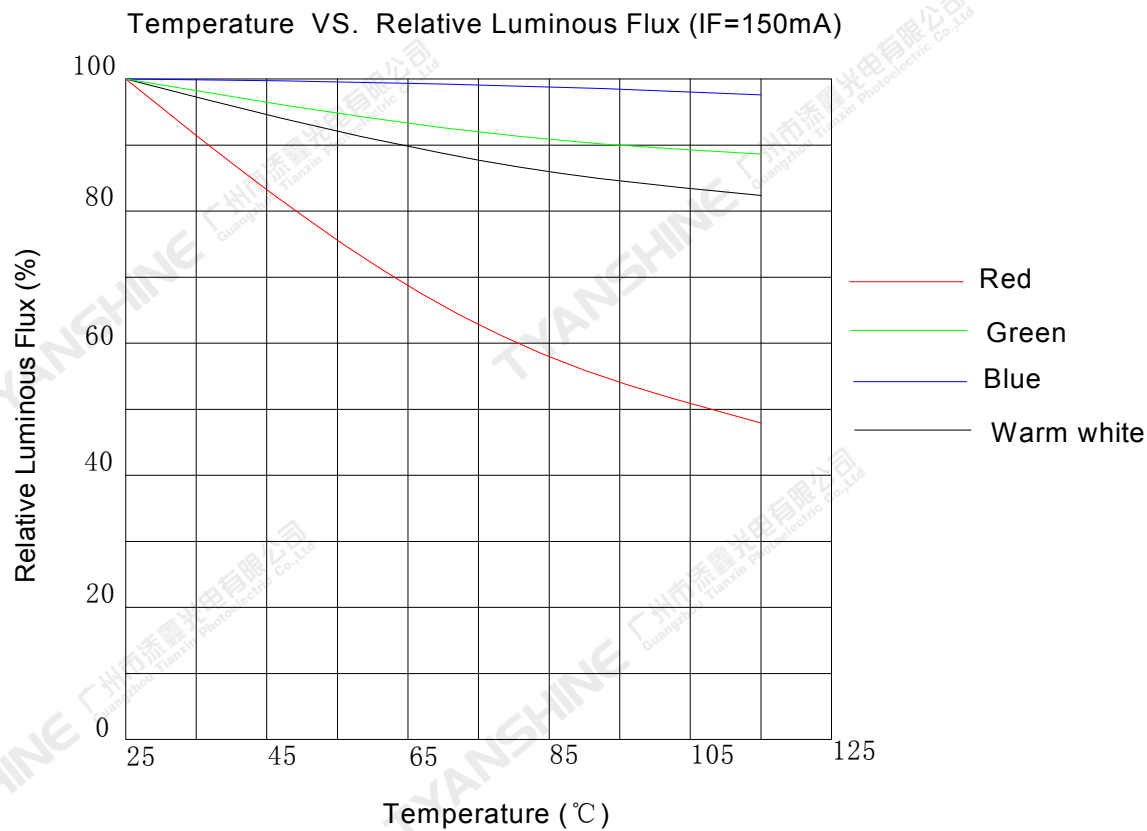
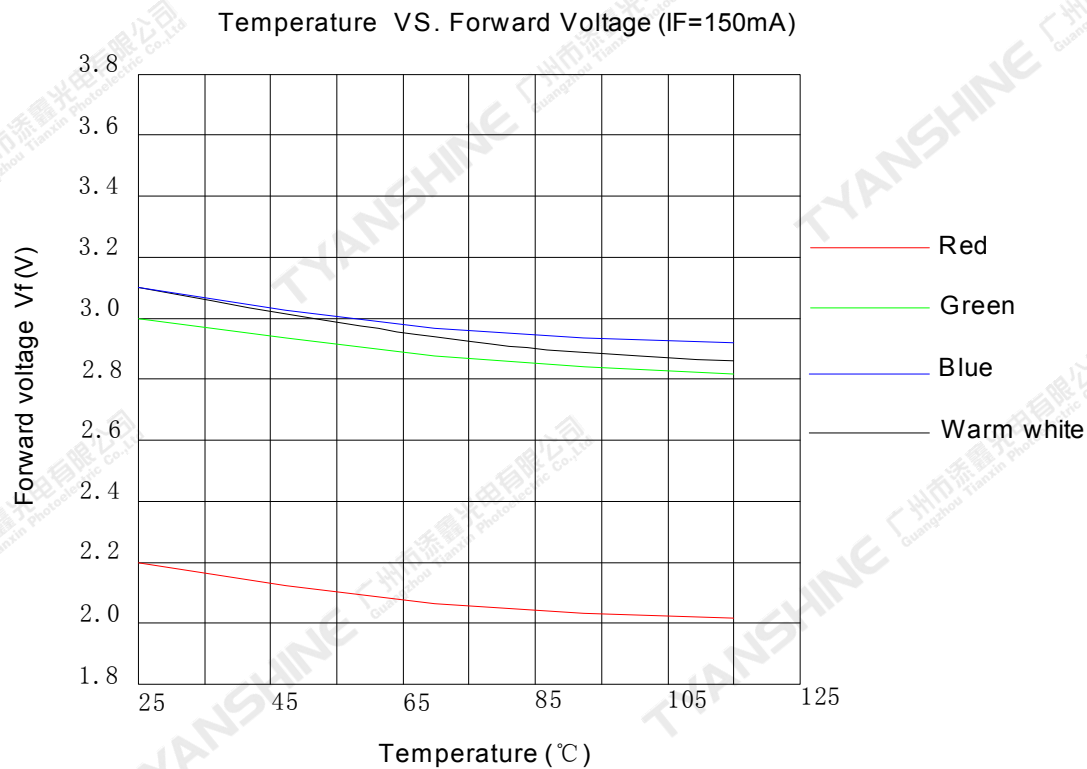
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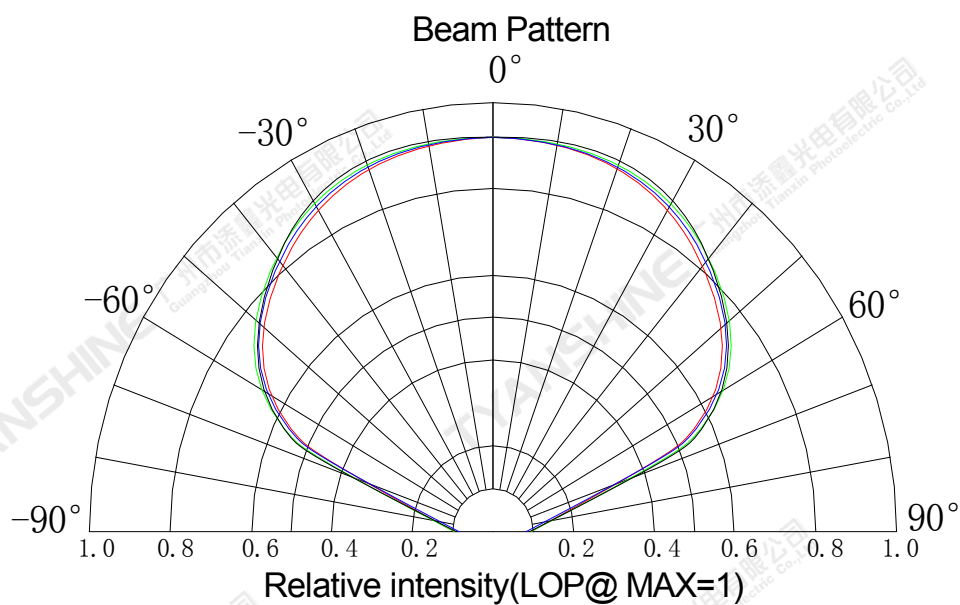
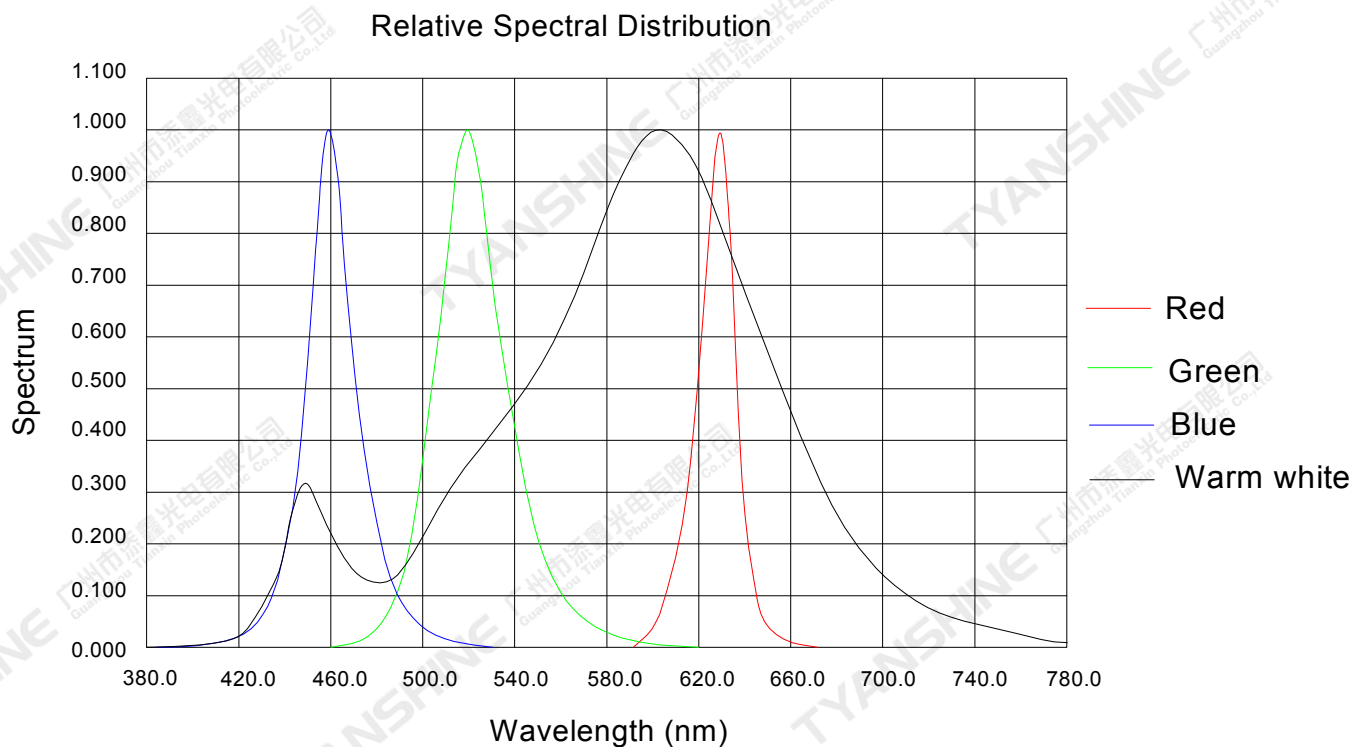
5.Forward voltage measurement tolerance:±0.15V.

Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)





**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

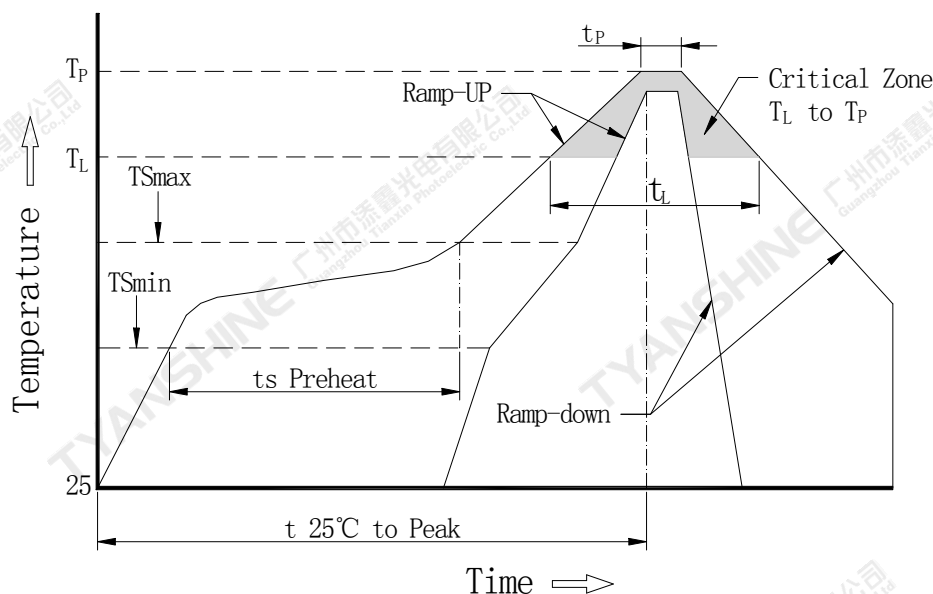
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



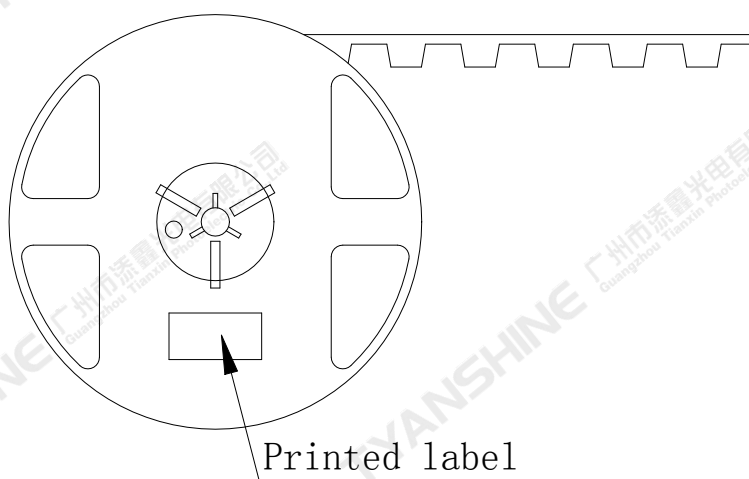
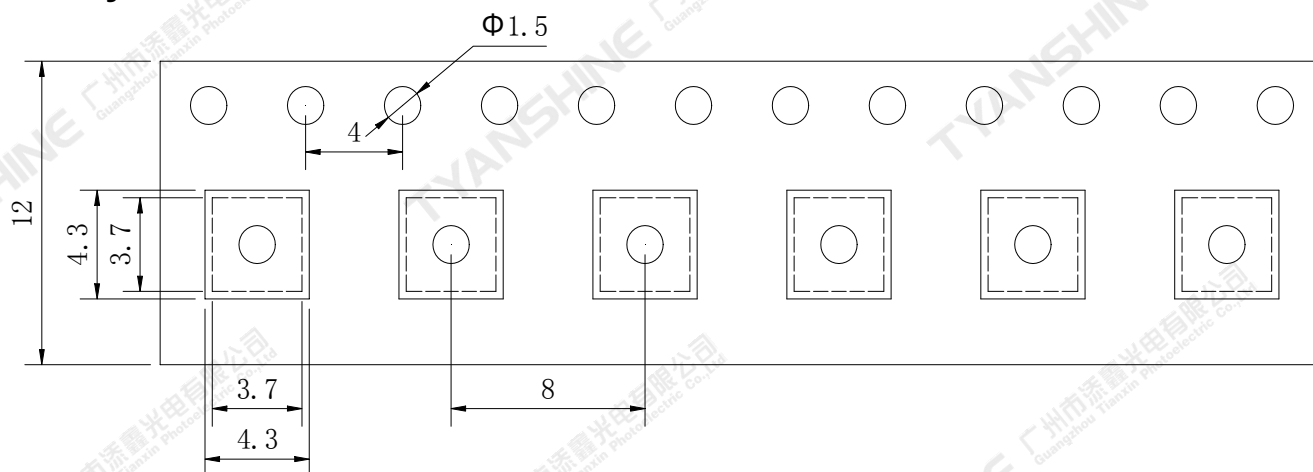
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)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

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