TX-3535RGBS4VSD1-0G4DB-01AH80

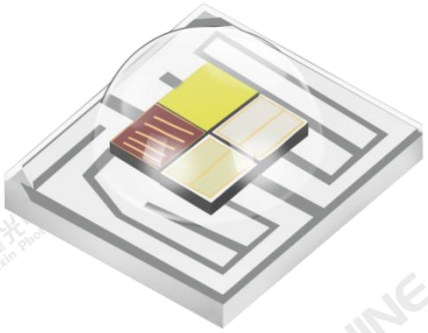
PRODUCT SPECIFICATION

Features:

◆Excellent transiting heat from LED chip operating under 500mA

◆High luminous output

◆No UV



Moisture Proof Grade:

◆LEVEL1

Emitting Color:

◆Red（R）

◆Green（G）

◆ Blue（B）

◆Warm white（S）

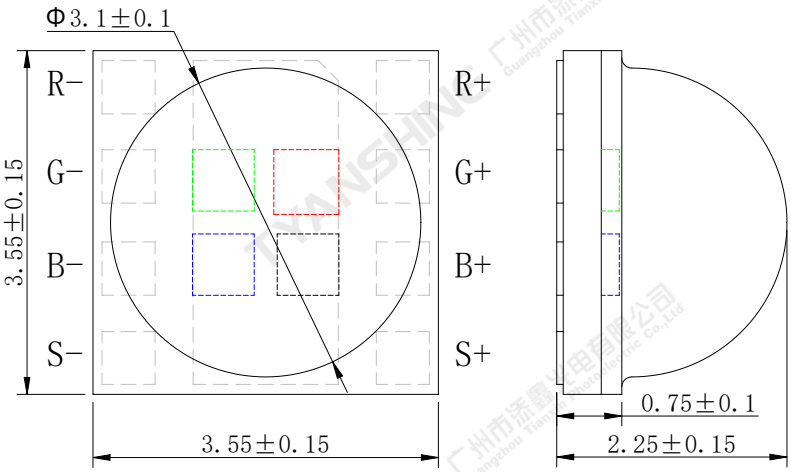
Applications:

◆Portable flashlight

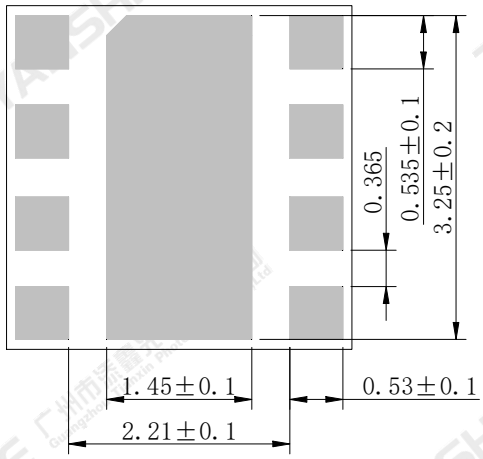
◆Garden lighting

◆General lighting

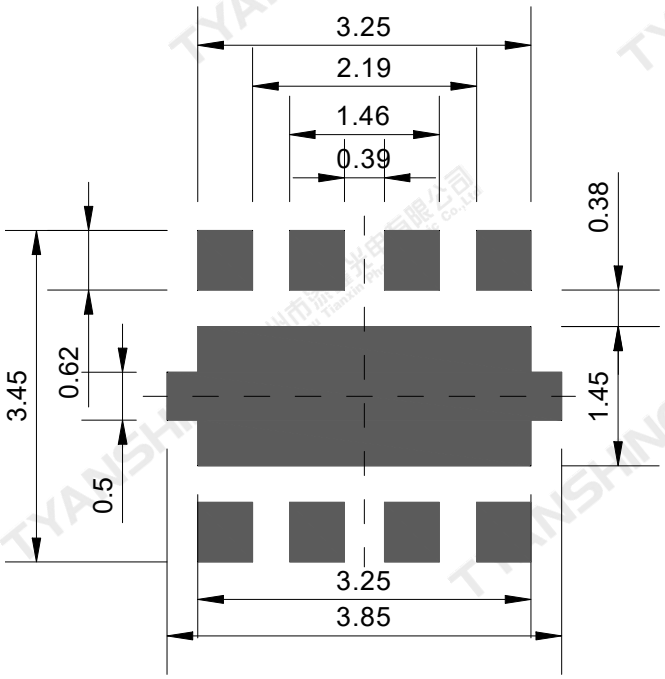
Package Dimensions:



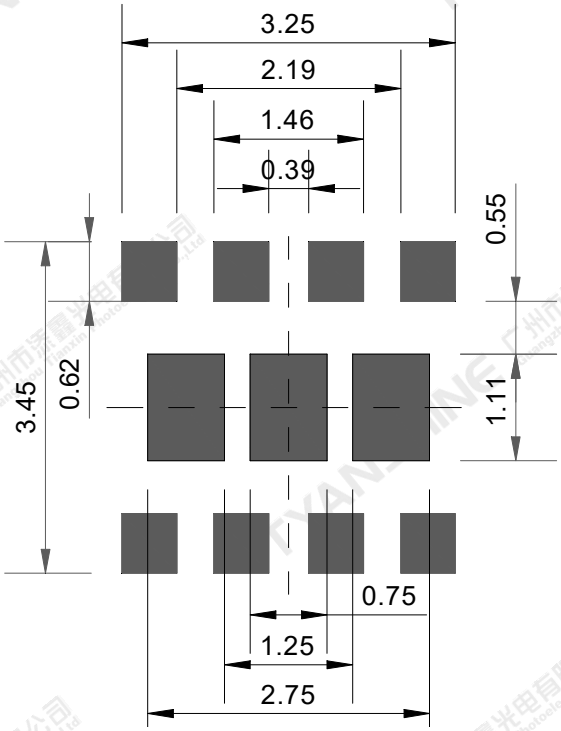
Top view Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

1.All dimensions are in millimeters .

2.Tolerances unless otherwise mentioned are ±0.15mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Max Ratings	Unit
Forward Current	IF		500	mA
Peak Forward Current (Condition 1)	I_{FP}		600	
Reverse Voltage	V_R		Not designed for reverse operation	V
Power Dissipation	P_D	R	1150	mW
		G	1600	
		B	1600	
		S	1600	
Junction Temperature	Tj	R	125	℃
		G	150	
		B	150	
		S	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	T_{stg}		-40~70	℃
Operation Temperature	T_{opr}		-30~85	
Ceramic side temperature(notes 4)	T_{cs}		85	

Condition 1.Pulse width ≤0.1 msec, duty ≤1/10.

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:

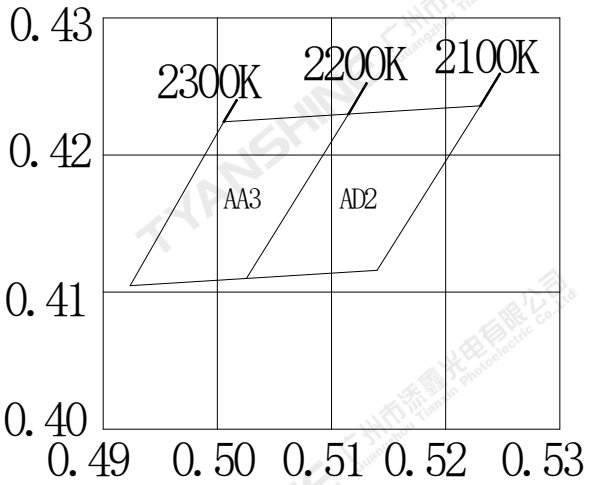
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

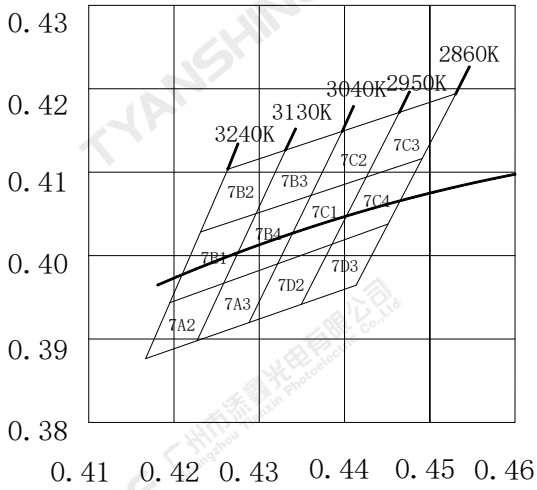
4.Temperature on the side of the ceramic substrate near the heat sink.

Electrical Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	If=350mA	R	46	58	70	lm
			G	90	105	120	
			B	27	34	40	
			$S1_{(2200K)}$	60	65	70	
			$S2_{(3040K)}$	85	95	105	
Dominant Wavelength	λd		R	620	622.5	625	nm
			G	525	527	532	
			B	465	469	473	
Correlated Colour Temperature	CCT		$S1_{(2200K)}$	2100	2200	2300	K
			$S2_{(3040K)}$	2860	3040	3240	
Color Rendering Index	Ra		S	80	82.5	—	—
Peak-emission Wavelength	λp		R	627	629.5	632	nm
			G	522	524	529	
			B	459	464	468	
Spectral Line Half-Width	△λ		R	15	17.5	20	nm
			G	30	35	40	
			B	16	19	22	
			S	106	113	120	
Forward Voltage	V_f		R	2.0	2.15	2.3	V
			G	2.9	3.05	3.2	
			B	2.9	3.05	3.2	
			S	2.9	3.05	3.2	
Reverse Current	I_R	V_R=7V	R	—	—	5	μA
			G	—	—	5	
			B	—	—	5	
			S	—	—	5	
Viewing Angle at 50％IV	$2\theta_{1/2}$	—	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	R	—	8.5	—	K/W
			G	—		—	
			B	—		—	
			S	—		—	
Temperature Coefficient of Voltage	V△F/T	If=350mA	R	—	-2.0	—	mV/℃
			G	—	-5.8	—	
			B	—	-1.6	—	
			S	—	-1.6	—	

White light Color coordinate filing (IF=350mA)





Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
AD2	2100K	2200K	0.5025	0.4110	0.5115	0.4230	0.5230	0.4236	0.5140	0.4116
AA3	2200K	2300K	0.4924	0.4105	0.5006	0.4224	0.5115	0.4230	0.5025	0.4110
7D3	2860K	2950K	0.4414	0.3964	0.4349	0.3942	0.4385	0.4014	0.4451	0.4038
7C4			0.4451	0.4038	0.4385	0.4014	0.4426	0.4094	0.4491	0.4116
7C3			0.4491	0.4116	0.4426	0.4094	0.4464	0.4172	0.4531	0.4194
7D2	2950K	3040K	0.4349	0.3942	0.4288	0.3920	0.4322	0.3990	0.4385	0.4014
7C1			0.4385	0.4014	0.4322	0.3990	0.4361	0.4072	0.4426	0.4094
7C2			0.4426	0.4094	0.4361	0.4072	0.4397	0.4149	0.4464	0.4172
7A3	3040K	3130K	0.4288	0.3920	0.4227	0.3898	0.4258	0.3967	0.4322	0.3990
7B4			0.4322	0.3990	0.4258	0.3967	0.4296	0.4050	0.4361	0.4072
7B3			0.4361	0.4072	0.4296	0.4050	0.4331	0.4126	0.4397	0.4149
7A2	3130K	3240K	0.4227	0.3898	0.4167	0.3876	0.4195	0.3944	0.4258	0.3967
7B1			0.4258	0.3967	0.4195	0.3944	0.4231	0.4028	0.4296	0.4050
7B2			0.4296	0.4050	0.4231	0.4028	0.4263	0.4104	0.4331	0.4126

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 (λd) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

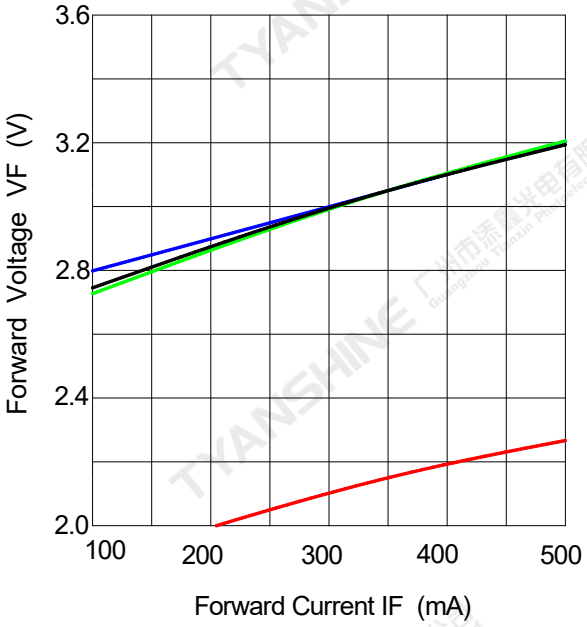
4.Luminous flux measurement tolerance:±15%.

5.Forward voltage measurement tolerance:±0.15V.

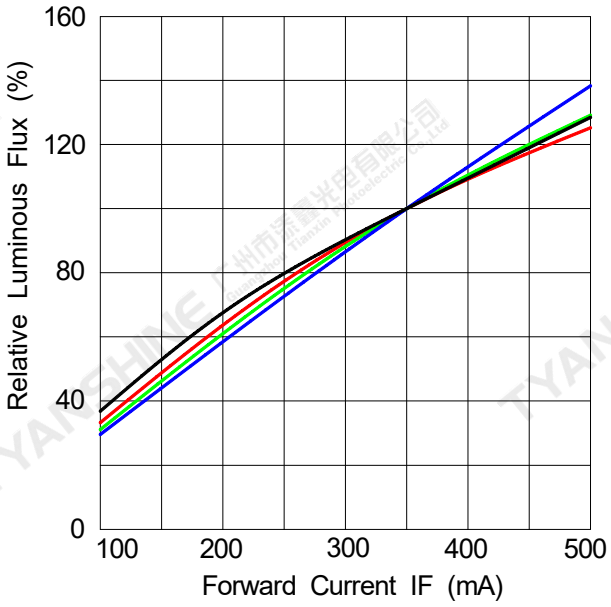
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

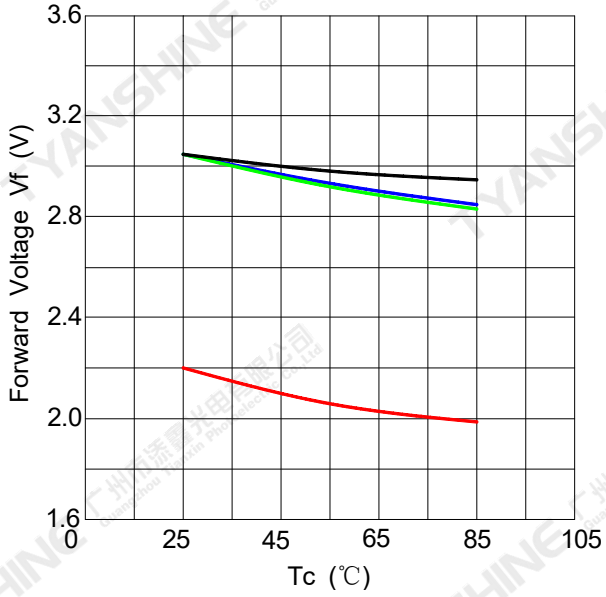
Forward Current VS. Relative Forward Voltage



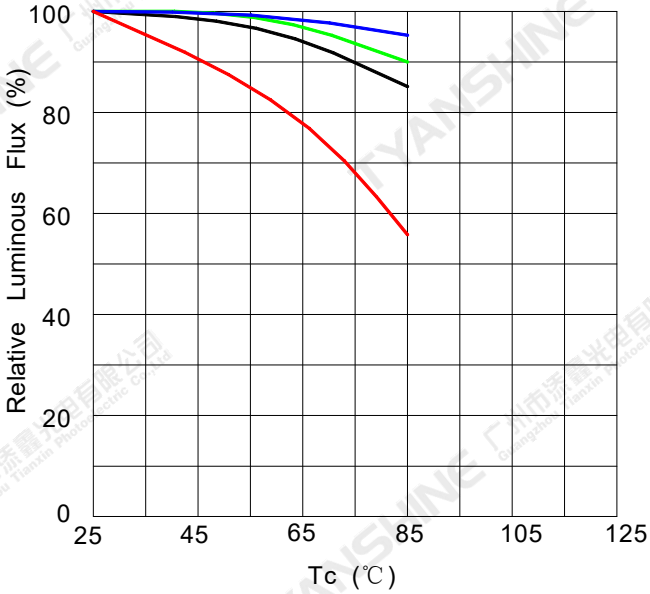
Forward Current VS. Relative Luminous Flux



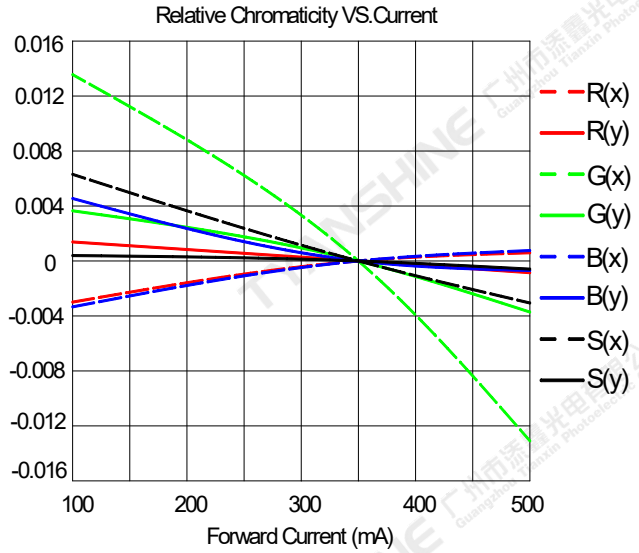
Temperature VS. Forward Voltage (IF=0.35A)

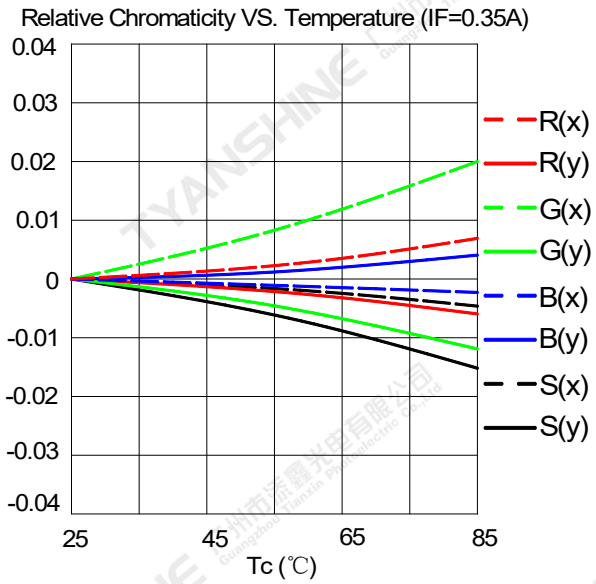


Temperature VS. Relative Luminous FLux (IF=0.35A)

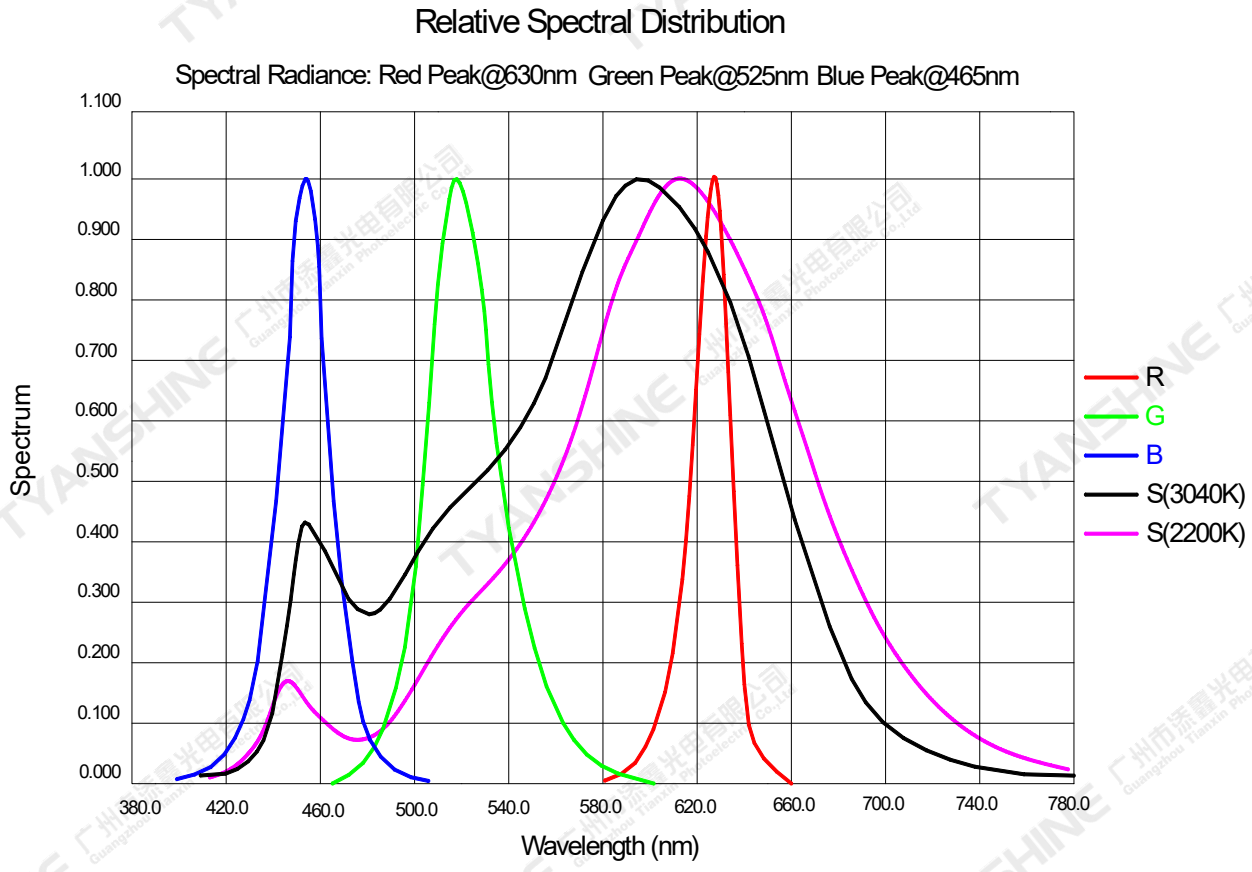


Notes: Red（R）; Green（G）; Blue（B）; Warm white（S）;





Notes: Red（R）; Green（G）; Blue（B）; Warm white（S）;



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

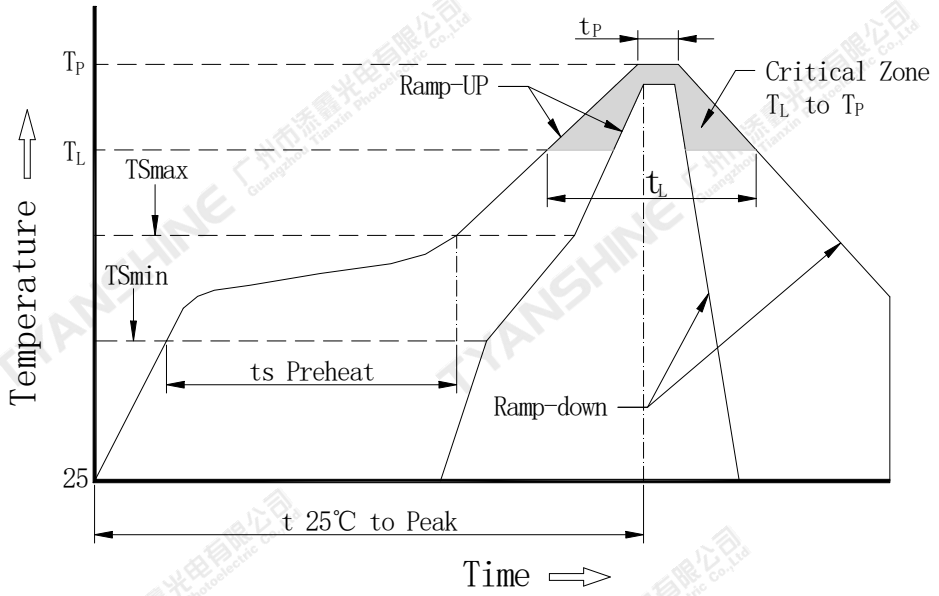
Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



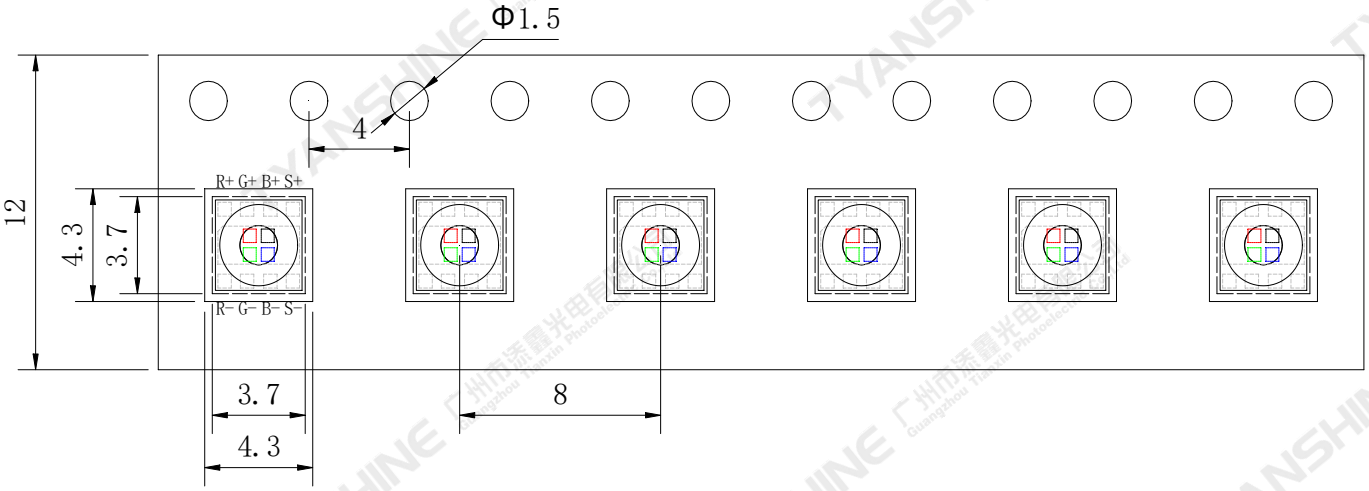
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (Ts_{max} to T_p)	3℃/second max.
Preheat: Temperature Min (Ts_{min})	130℃
Preheat: Temperature Max (Ts_{max})	190℃
Preheat: Time (Ts_{min} to Ts_{max})	120-180 seconds
Time Maintained Above: Temperature (T_L)	230℃
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	255℃
Time Within 5℃ of Actual Peak Temperature (T_P)	10-35 seconds
Ramp-Down Rate	5℃/second max.
Time 25℃ to Peak Temperature	7 minutes max.

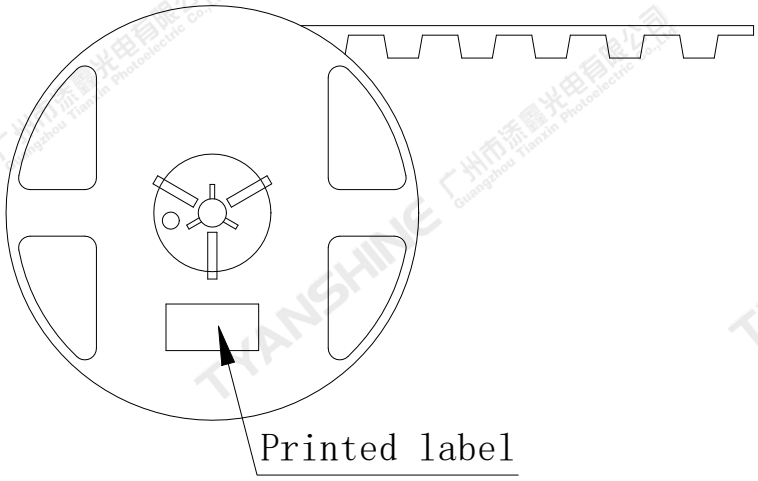
Note:

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.

产品规格书变更履历表

版本	变更内容描述		生效日期
	变更前内容	变更后内容	
1.1	-	增加Ceramic side temperature(notes4)	2024.01.05
1.1	-	外形更正为3.55*3.55±0.15mm 底部备注公差更正为±0.15mm	2024.01.05
1.1	Chip Material:	Moisture Proof Grade:	2024.01.05
1.1	-	RG光部分参数变动修改	2025.03.19
1.2	-	新增色温标准AA3、AD2档位相关参数	2025.05.08
1.3	-	总热阻值按8.5调整	2025.09.01