TX-3535RGBS10VSD1-NG4DC-01H80

PRODUCT SPECIFICATION

Features:

◆Excellent transiting heat from LED chip operating under R:1000mA BGS:1200mA

◆High luminous output

◆No UV

Moisture Proof Grade:

◆LEVEL1

Emitting Color:

◆Red（R）

◆Green（G）

◆Blue（B）

◆Warm white（S）

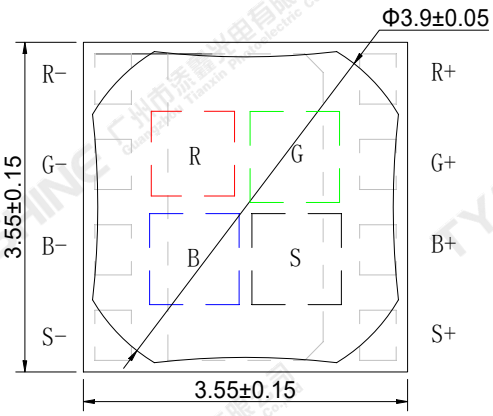
Applications:

◆Portable flashlight

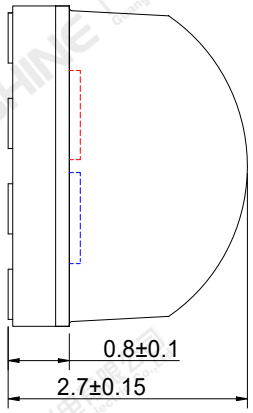
◆Garden lighting

◆General lighting

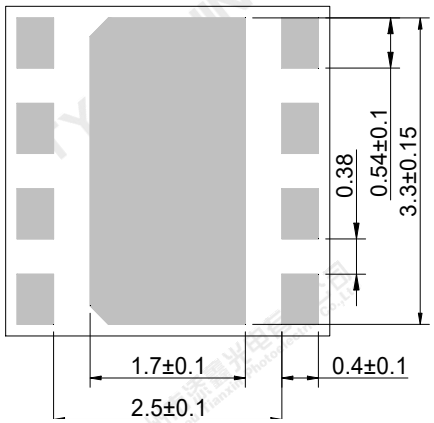
Package Dimensions:



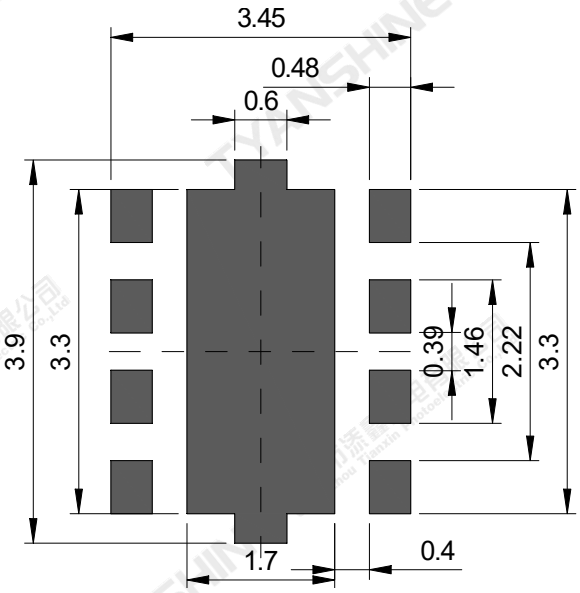
Top view



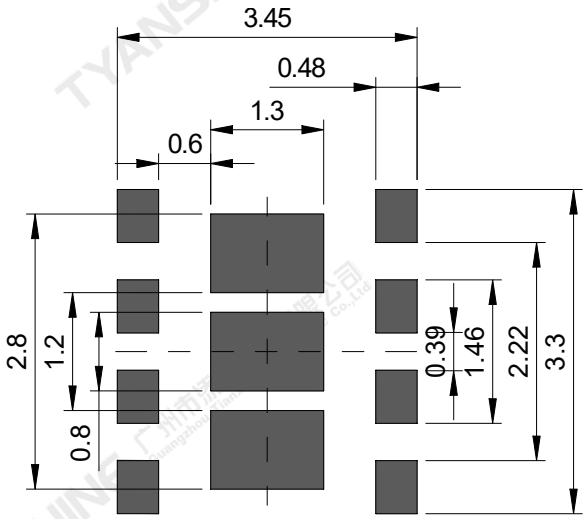
Side view



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	I_F	R	1000	mA
		G	1200	
		B	1200	
		S	1200	
Peak Forward Current (Condition 1)	I_{FP}	R	1200	
		G	1500	
		B	1500	
		S	1500	
Reverse Voltage	V_R		7	V
Power Dissipation	P_D	R	2700	mW
		G	3600	
		B	3500	
		S	3600	
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:

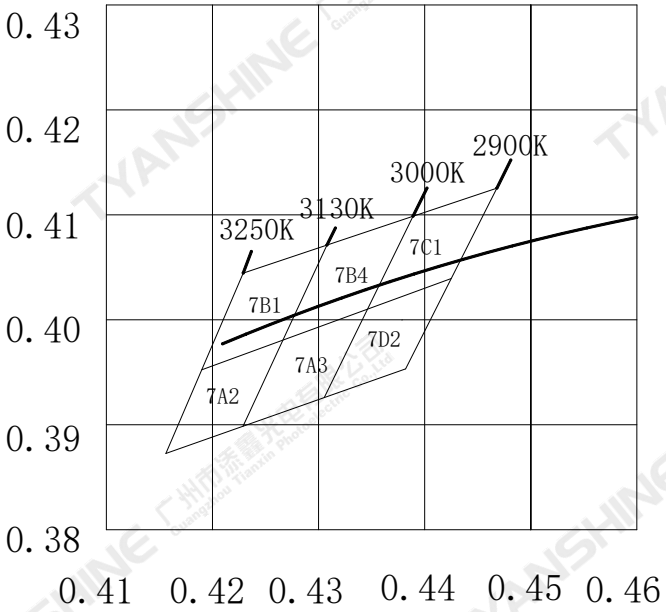
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

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

Electrical Optical Characteristics (Tc=25°C，IF=700mA)

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	R	110	125	140	lm
		G	180	225	265	
		$B_{(456nm)}$	30	42	50	
		$B_{(468nm)}$	52	57	62	
		S	170	195	230	
Correlated Colour Temperature	CCT	S	2900	3070	3250	K
Color Rendering Index	Ra	S	80	82	—	—
Dominant Wavelength	λd	R	616	621	626	nm
		G	521	526	531	
		$B_{(456nm)}$	451	456	461	
		$B_{(468nm)}$	465	468	470	
Peak-emission Wavelength	λp	R	625	630	635	nm
		G	515	520	525	
		$B_{(456nm)}$	446	451	456	
		$B_{(468nm)}$	460	463	465	
Spectral Line Half-Width	△λ	R	14	16	18	nm
		G	30	35	40	
		B	18	21	24	
		S	115	130	145	
Forward Voltage	V_f	R	2.0	2.4	2.7	V
		G	2.8	3.2	3.6	
		B	2.8	3.1	3.5	
		S	2.9	3.2	3.6	
Reverse Current	I_R	V_R=7V	—	—	5	μA
Viewing Angle at 50％IV	$2\theta_{1/2}$	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R\theta_{J-C}$	R	—	5.3	—	K/W
		G	—	5.3	—	
		B	—	5.3	—	
		S	—	5.3	—	
Temperature Coefficient of Voltage	V△F/T	R	—	-5.4	—	mV/℃
		G	—	-2.1	—	
		B	—	-2.0	—	
		S	—	-5.4	—	

White light Color coordinate filing (IF=700mA)



Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
7D2	2900K	3000K	0.4305	0.3926	0.4346	0.4010	0.4425	0.4039	0.4382	0.3953
7C1			0.4346	0.4010	0.4389	0.4099	0.4468	0.4125	0.4425	0.4039
7A3	3000K	3130K	0.4229	0.3899	0.4266	0.3981	0.4346	0.4010	0.4305	0.3926
7B4			0.4266	0.3981	0.4308	0.4071	0.4389	0.4099	0.4346	0.4010
7A2	3130K	3250K	0.4156	0.3873	0.4190	0.3952	0.4266	0.3981	0.4229	0.3899
7B1			0.4190	0.3952	0.4229	0.4044	0.4308	0.4071	0.4266	0.3981

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%.

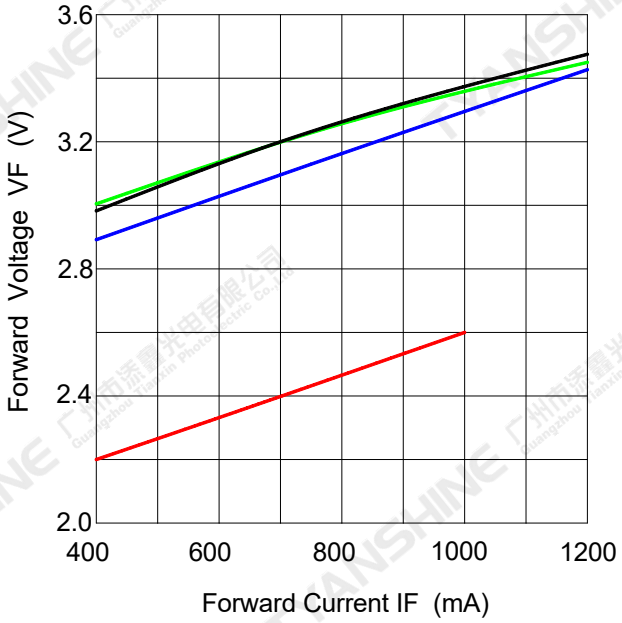
4.Forward voltage measurement tolerance:±10%V.

5.Ra measurement tolerance:±2.

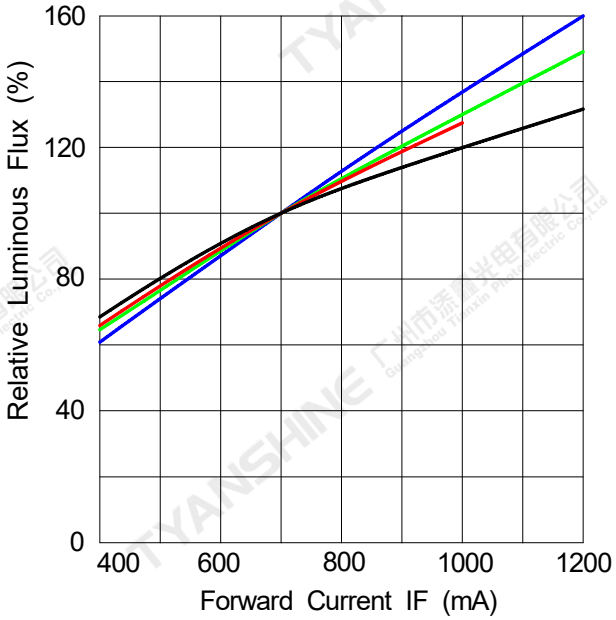
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

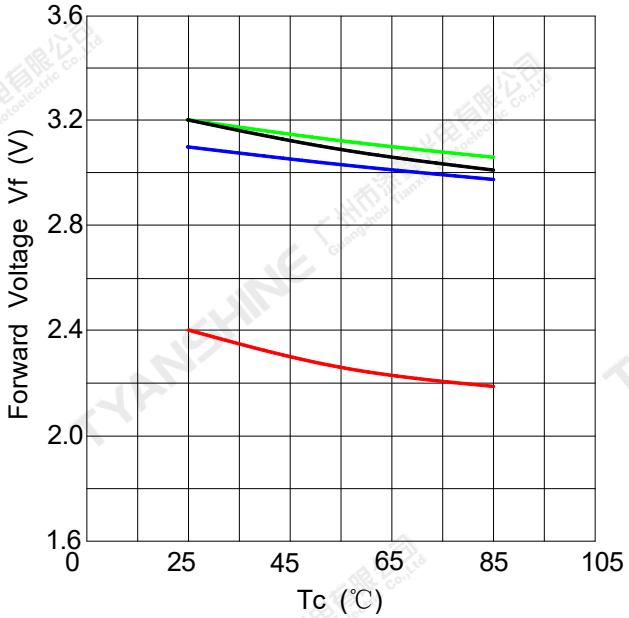
Forward Current VS. Relative Forward Voltage



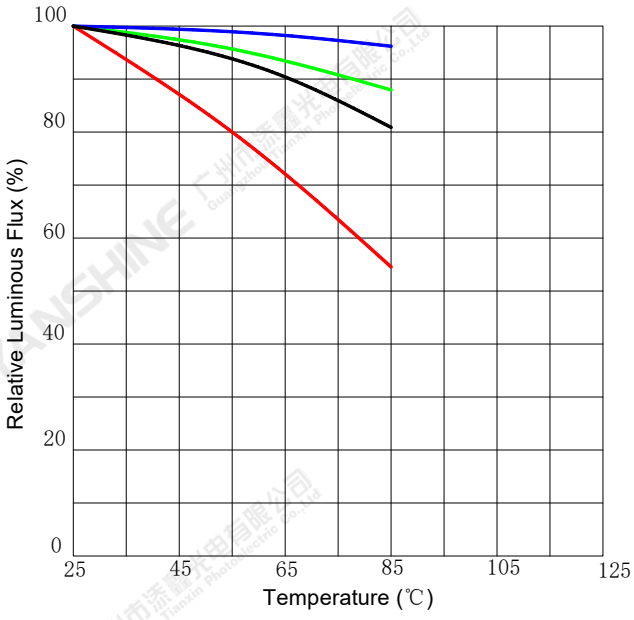
Forward Current VS. Relative Luminous Flux



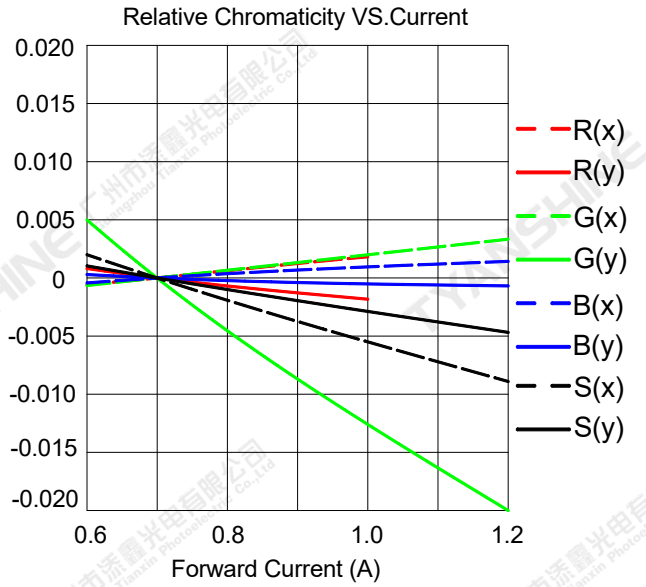
Temperature VS. Relative Luminous FLux (IF=0.7A)

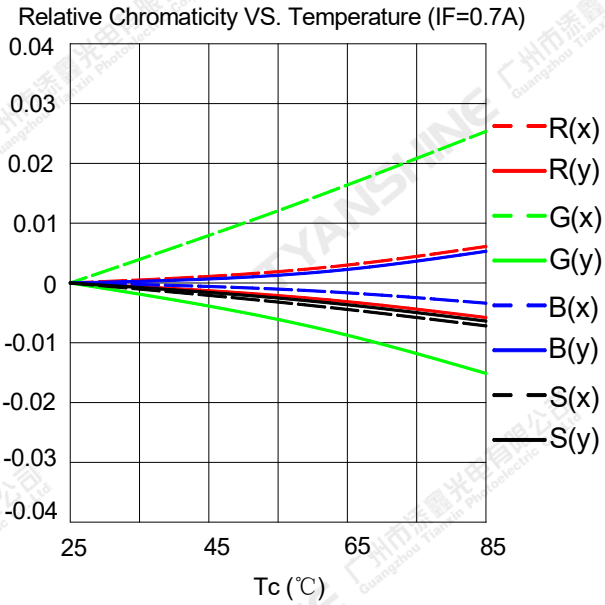


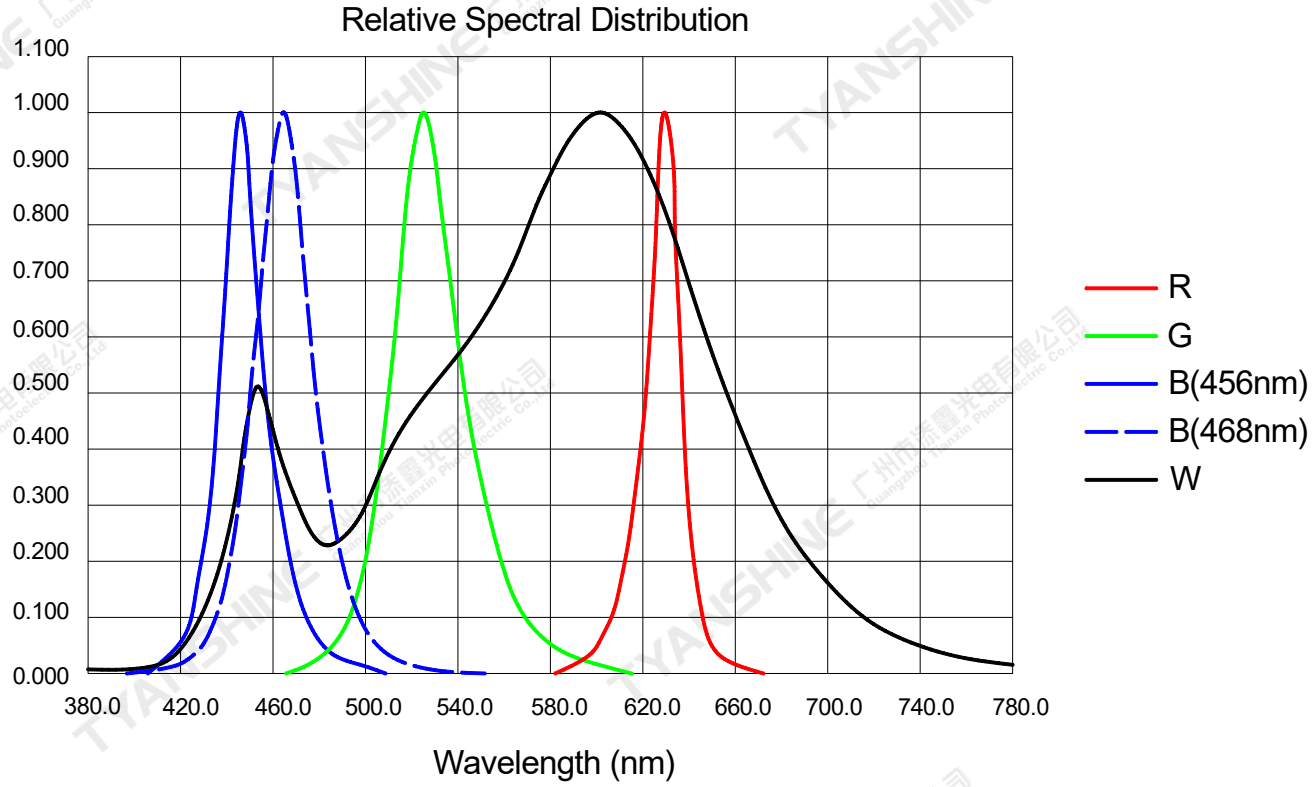
Temperature VS. Relative Luminous Flux (IF=0.7A)



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

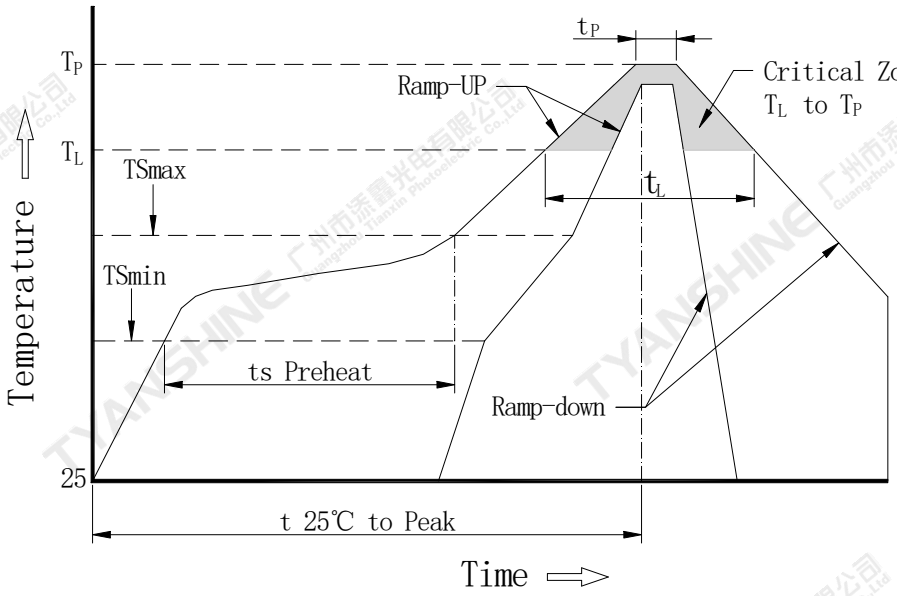
Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



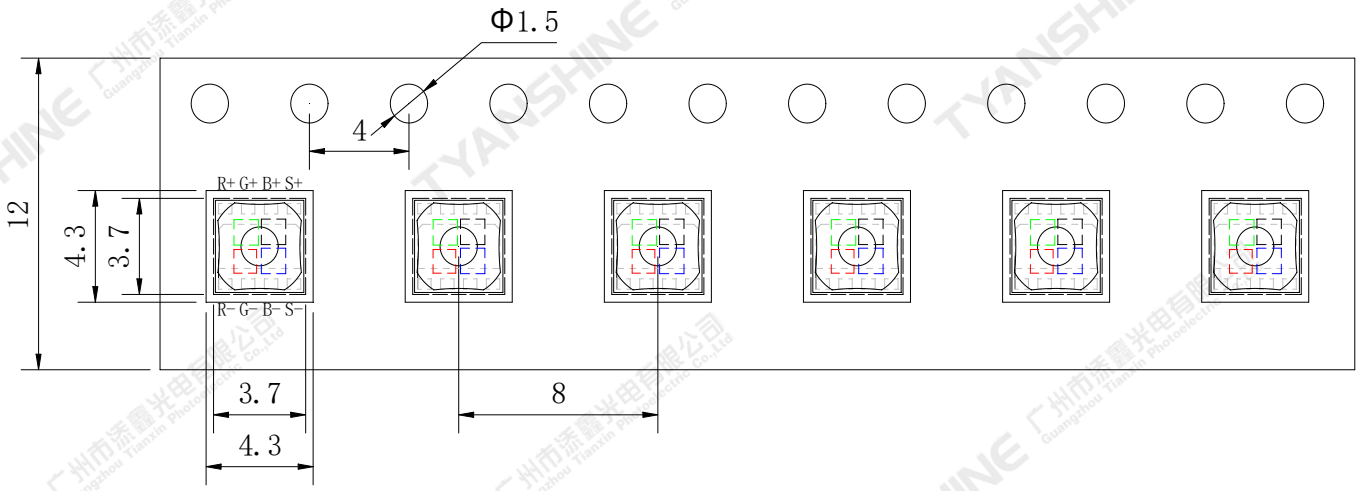
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (Ts_{max} to T_p)	3℃/second max.
Preheat: Temperature Min (Ts_{min})	130℃
Preheat: Temperature Max (Ts_{max})	190℃
Preheat: Time (Ts_{min} to Ts_{max})	120-180 seconds
Time Maintained Above: Temperature (T_L)	230℃
Time Maintained Above: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

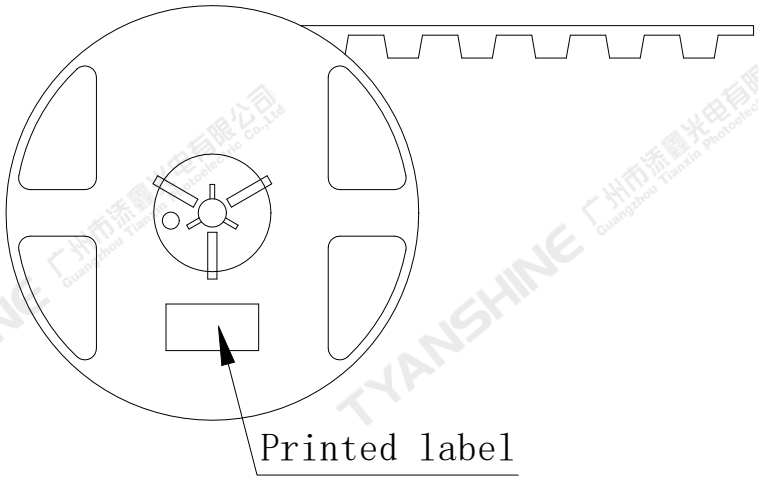
Note:

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

Dimensions For Cannulation And Packaging

Quantity: 700PCS





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	
1.3	-	增加Ceramic side temperature(notes4)	2023.12.16
1.3	-	外形更正为3.55*3.55±0.15mm 底部备注公差更正为±0.15mm	2023.12.16
1.3	Chip Material:	Moisture Proof Grade:	2023.12.16
1.4	原分光图档位7A3、7D2 G光光通量180-230	现分光图档位7D2、7C1、7A3、7B4、7A2、7B1 G光光通量180-265	2025.04.15