

# TX-3535RGBW8MCD1-NG4DC-01

## PRODUCT SPECIFICATION

### Features:

- ◆ Excellent transiting heat from LED chip operating under 800mA
- ◆ High luminous output
- ◆ No UV

### Moisture Proof Grade:

- ◆ LEVEL1

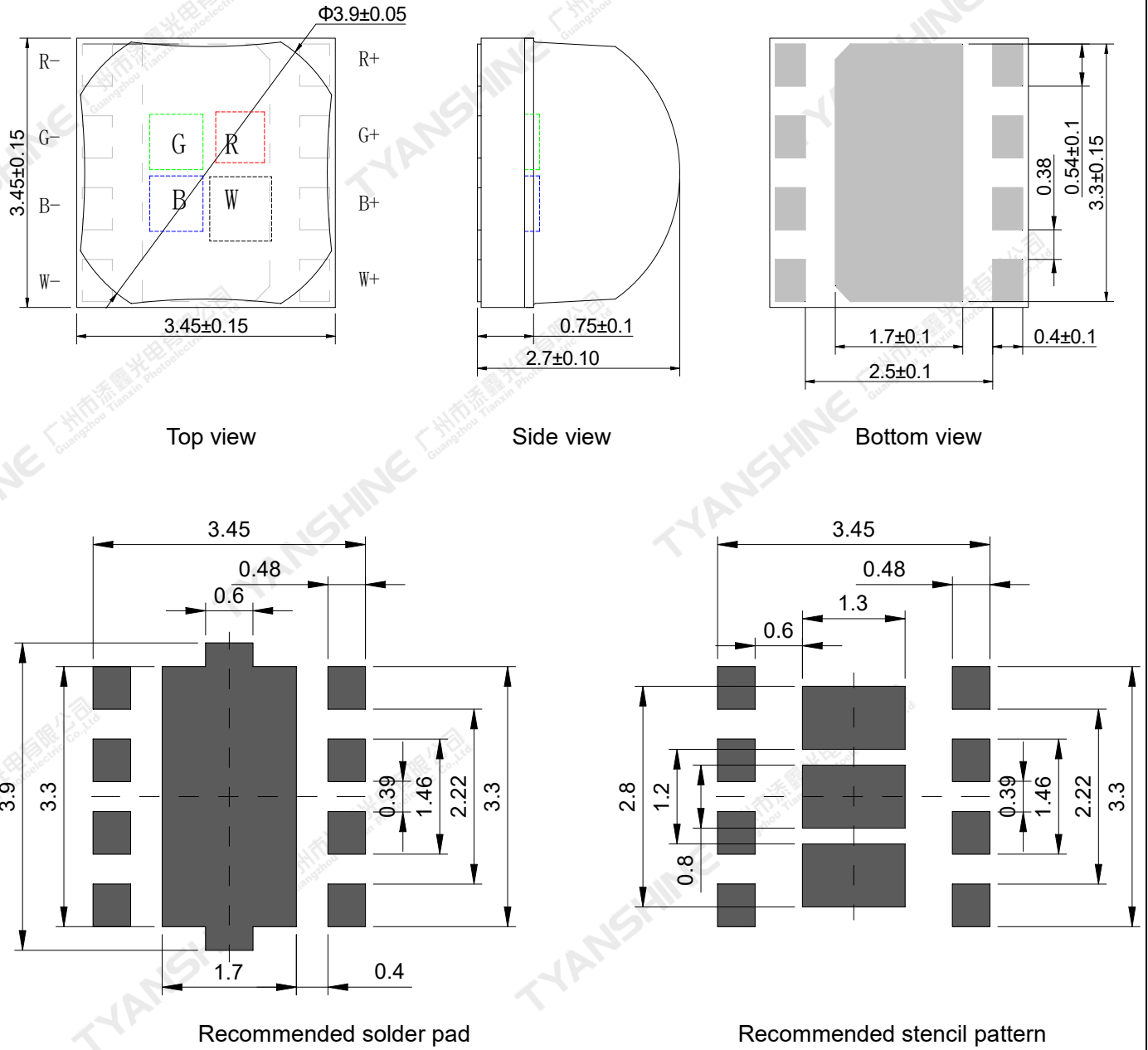
### Emitting Color:

- ◆ Red (R)
- ◆ Green (G)
- ◆ Blue (B)
- ◆ White (W)

### Applications:

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

**Package Dimensions:**



**Notes:**

1. All dimensions are in millimeters .
2. Tolerances unless otherwise mentioned are  $\pm 0.15$ mm .

**Absolute Maximum Ratings (Tc=25°C)**

Parameter	Symbol	Max Ratings	Unit	
Forward Current	IF	800	mA	
Peak Forward Current (Condition 1)	IFP	960		
Reverse Voltage	VR	5	V	
Power Dissipation	PD	R	2160	mW
		G	2800	
		B	2800	
		W	2800	
Junction Temperature	Tj	R	125	°C
		G	150	
		B	150	
		W	150	
Electrostatic Discharge Threshold (ESD)	ESD	2000	V	
Storage Temperature	Tstg	-40~70	°C	
Operation Temperature	Topr	-30~85		
Ceramic side temperature(Notes 4)	Tcs	85		

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

**Notes:**

- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- 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.
- Temperature on the side of the ceramic substrate near the heat sink.

**Electrical Optical Characteristics (Tc=25°C, IF=500mA)**

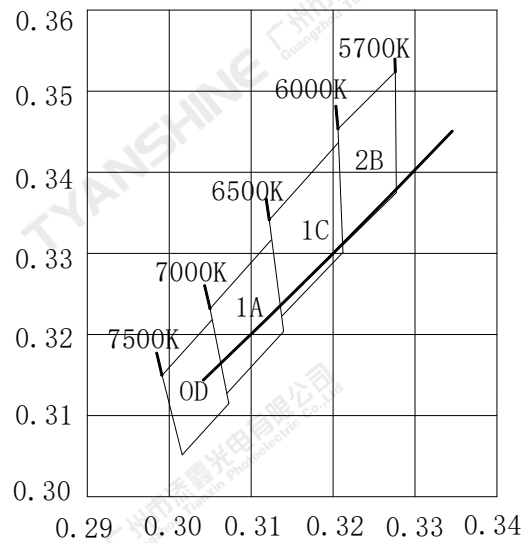
Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	$\phi_v$	R	80	90	100	lm
		G	140	155	170	
		B	20	25	30	
		W	175	195	215	
Correlated Colour Temperature	CCT	W	5700	6600	7500	K
Dominant Wavelength	$\lambda_d$	R	618	623	628	nm
		G	517	522	527	
		B	447	452	457	
Peak-emission Wavelength	$\lambda_p$	R	625	630	635	nm
		G	512	517	522	
		B	441	446	451	
Spectral Line Half-Width	$\Delta\lambda$	R	14	16	18	nm
		G	27	30	33	
		B	15	18	21	
		W	15	18	21	
Forward Voltage	$V_f$	R	2.0	2.4	2.7	V
		G	2.8	3.1	3.5	
		B	2.8	3.2	3.5	
		W	2.8	3.2	3.5	
Reverse Current	$I_R$	$V_R=5V$	—	—	2	$\mu A$
Viewing Angle at 50% IV	$2\theta_{1/2}$	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R_{\theta_{J-C}}$	R	—	13	—	K/W
		G	—	7	—	
		B	—	7	—	
		W	—	4	—	
Temperature Coefficient of Voltage	$V\Delta F/T$	R	—	-2.0	—	mV/°C
		G	—	-5.8	—	
		B	—	-1.6	—	
		W	—	-1.6	—	

**Notes:**

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- Luminous flux measurement tolerance:  $\pm 10\%$ .
- Forward voltage measurement tolerance:  $\pm 10\%V$ .
- Ra measurement tolerance:  $\pm 2$ .

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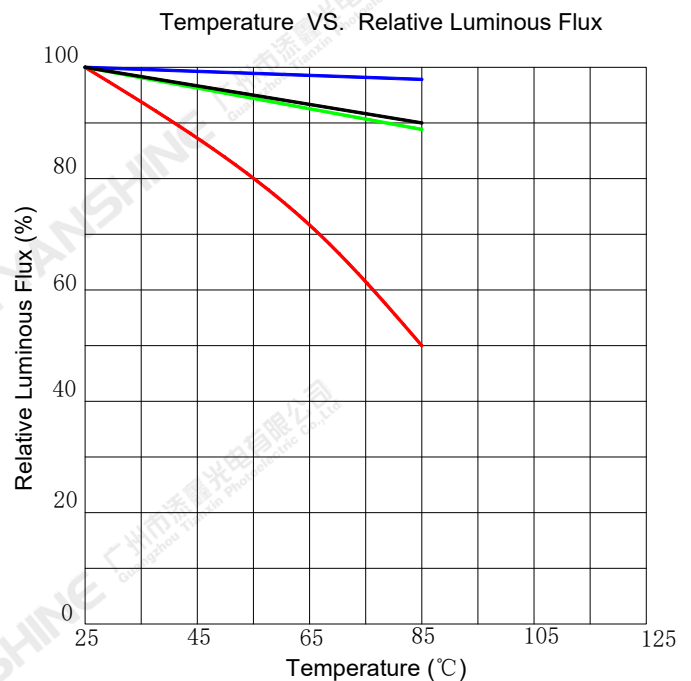
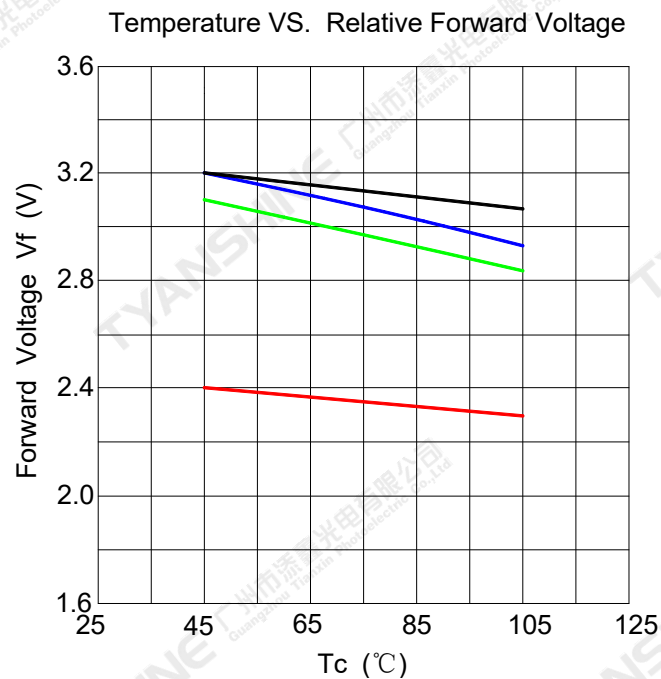
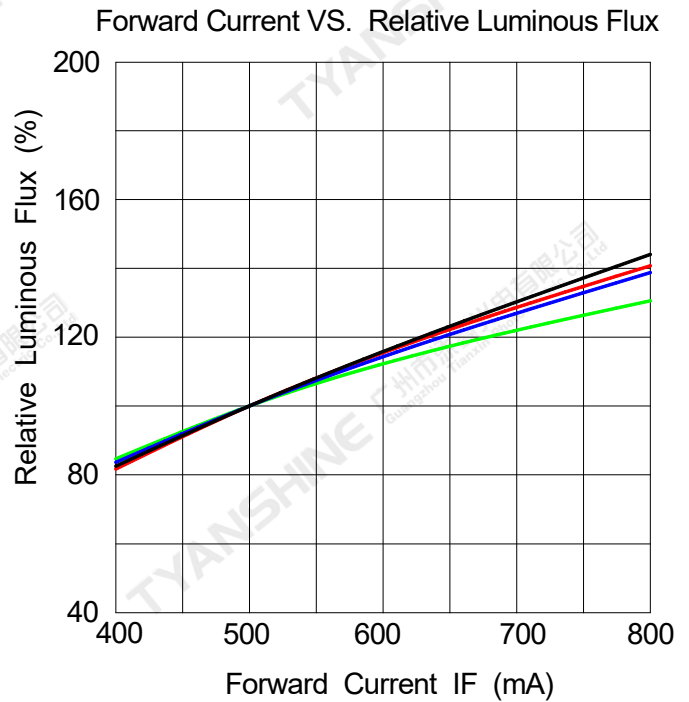
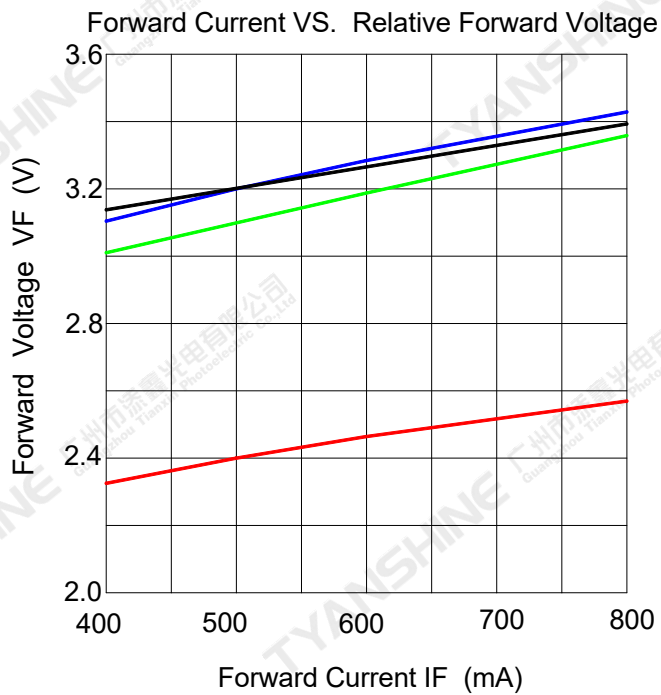
**White light Color coordinate filing (IF=500mA)**



Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
2B	5700K	6000K	0.3212	0.3310	0.3206	0.3454	0.3276	0.3524	0.3277	0.3375
1C	6000K	6500K	0.3137	0.3222	0.3122	0.3341	0.3207	0.3437	0.3212	0.3301
1A	6500K	7000K	0.3070	0.3127	0.3050	0.3232	0.3125	0.3317	0.3140	0.3204
OD	7000K	7500K	0.3016	0.3052	0.2991	0.3150	0.3052	0.3218	0.3073	0.3115

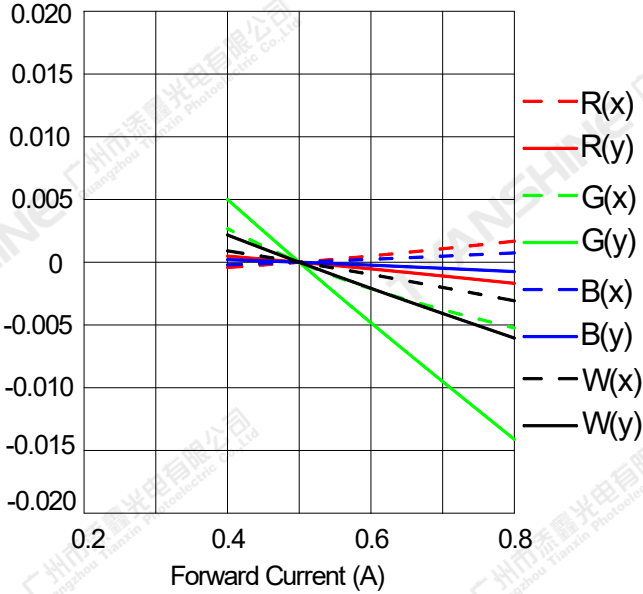
## Typical Electrical/Optical Characteristics Curves(IF=500mA)

(25°C Ambient Temperature Unless Otherwise Noted)

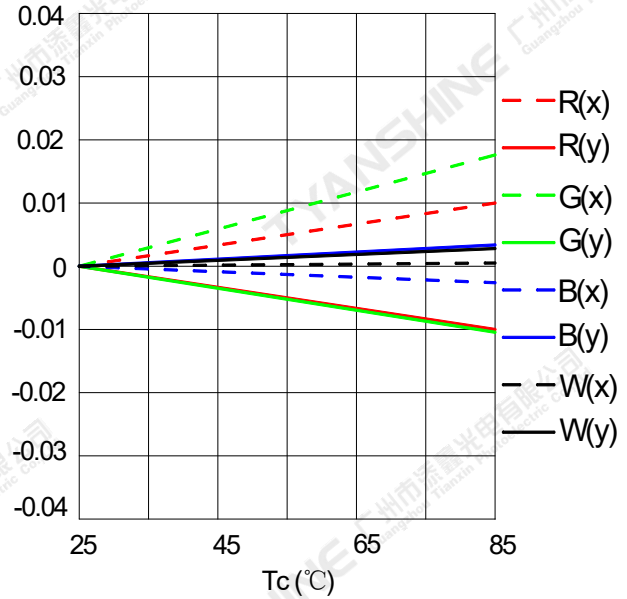


**Notes:** — Red (R) ; — Green (G) ; — Blue (B) ; — White (W) ;

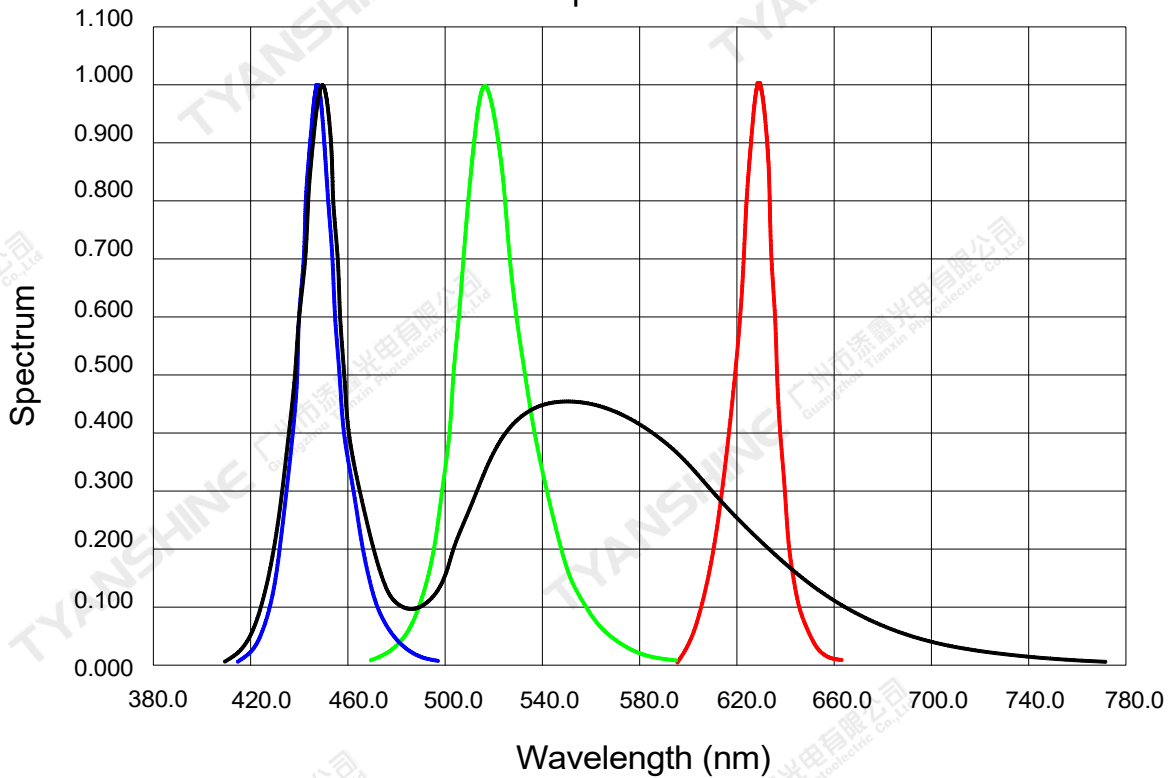
Relative Chromaticity VS. Current



Relative Chromaticity VS. Temperature



Relative Spectral Distribution



**Notes:** ■ Red (R) ; ■ Green (G) ; ■ Blue (B) ; ■ White (W) ;

**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

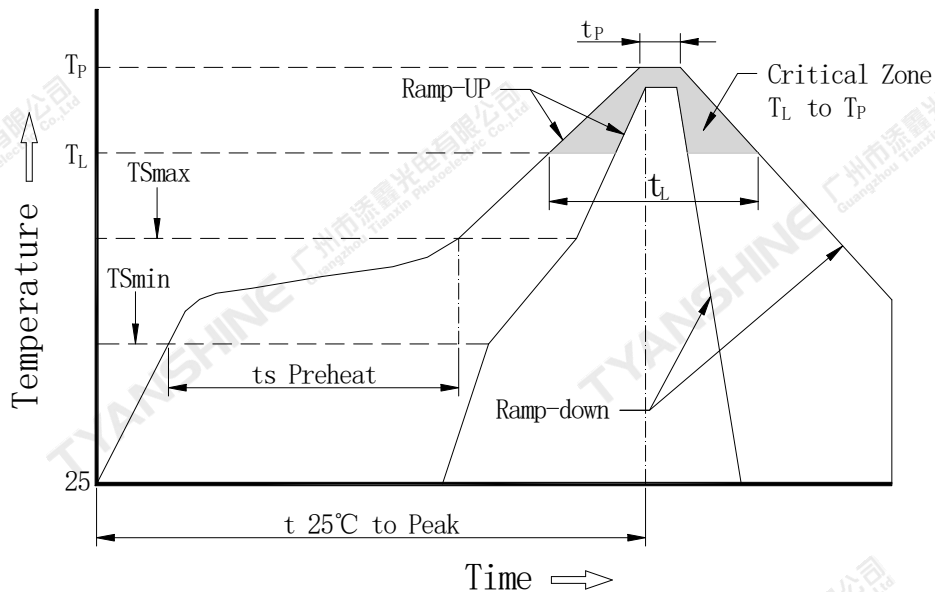
### Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

### Soldering Condition

Use the conditions shown to the under figure.



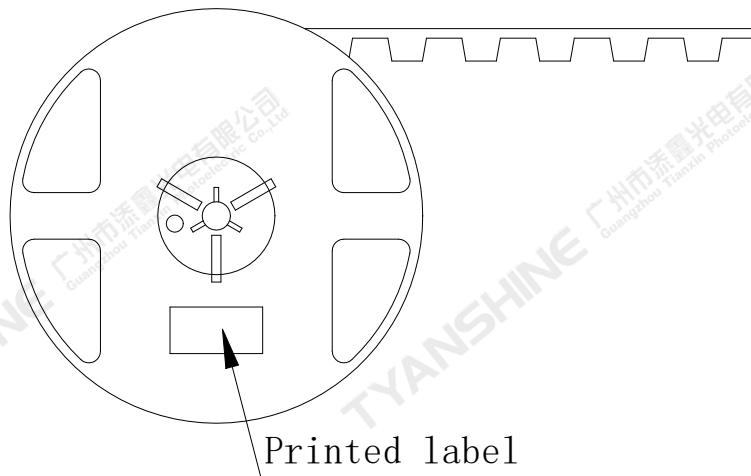
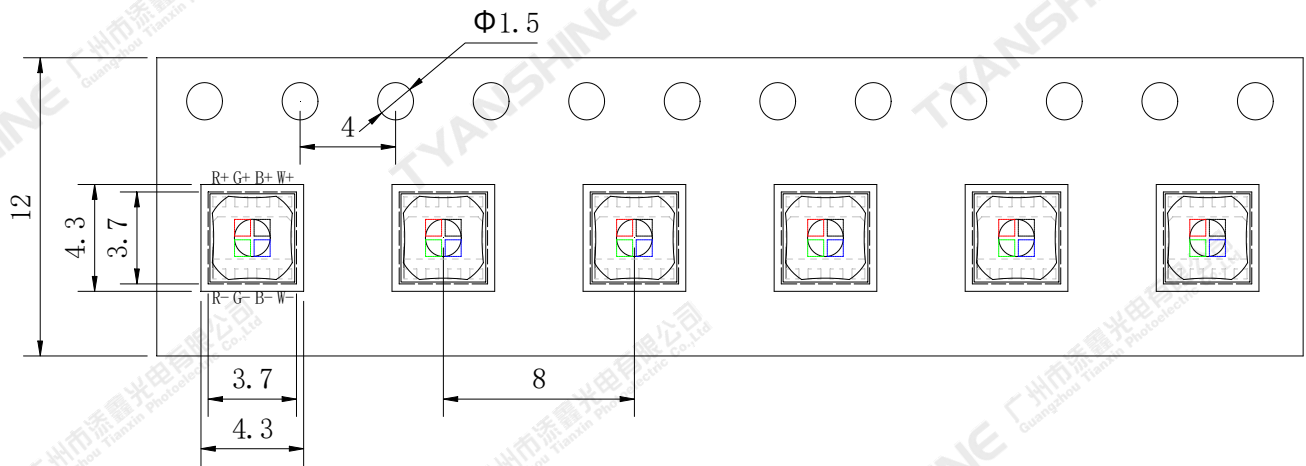
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (Tsmax to Tp)	3°C/second max.
Preheat: Temperature Min (Tsmin)	130°C
Preheat: Temperature Max (Tsmax)	190°C
Preheat: Time (Tsmin to Tsmax)	120-180 seconds
Time Maintained Above: Temperature (Tl)	230°C
Time Maintained Above: Time (tL)	60-150 seconds
Peak/Classification Temperature (Tp)	255°C
Time Within 5°C of Actual Peak Temperature (Tp)	10-35 seconds
Ramp-Down Rate	5°C/second max.
Time 25°C 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  $\pm 2.0$  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.

