

TX-5060RGBW15FC120-NUVCNG-02B

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
- ◆ White: GaInN

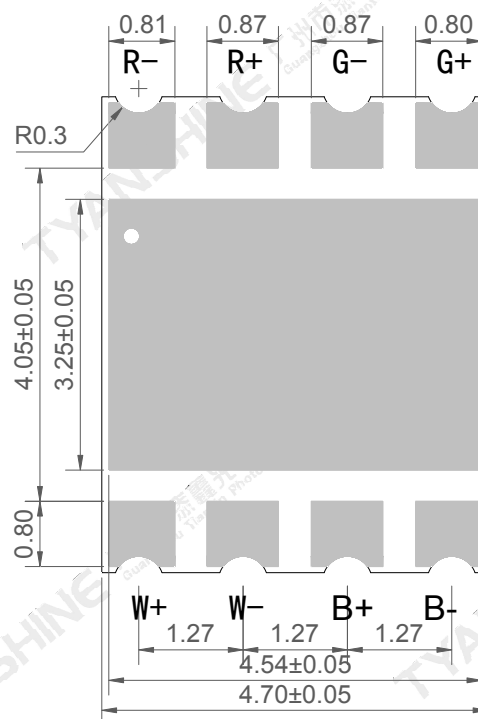
Emitting Color:

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

Applications:

- ◆ Auxiliary lighting
- ◆ Ambient lighting
- ◆ Architectural lighting
- ◆ Entertainment lighting

Part No.	TX-5060RGBW15FC120-NUVCNG-02B	Spec No.	WKF-FC0008	Page	1 of 9
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1.All dimensions are in millimeters .

2.Tolerances unless otherwise mentioned are $\pm 0.1\text{mm}$.

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Ratings	Unit
Forward Current	IF	R	1.0	A
		G	1.2	
		B	1.2	
		W	1.2	
Reverse Voltage	VR		Not designed for reverse operation	V
Power Dissipation	PD	R	2.7	W
		G	5.4	
		B	5.4	
		W	5.4	
Junction Temperature	Tj	R	115	℃
		G	150	
		B	150	
		W	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	Tstg		-40~+70	℃
Operation Temperature	Topr		-30~+85	

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.

Electrical Optical Characteristics (Tc=25°C, IF=0.75A)

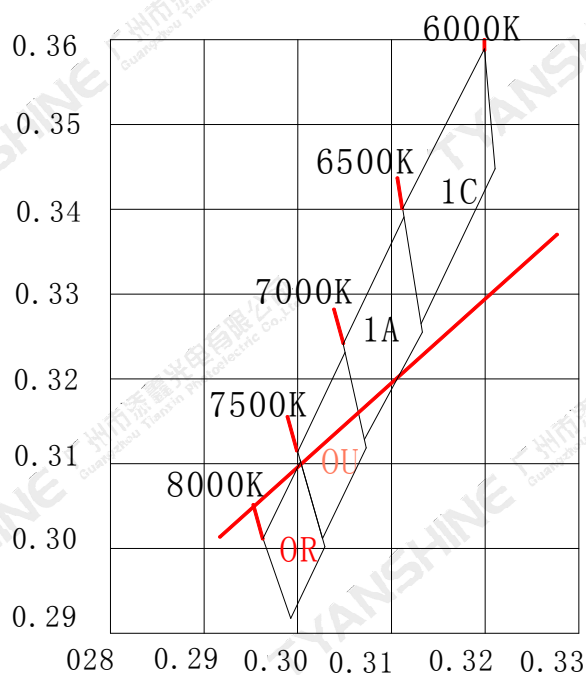
Parameter	Symbol	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	R	70	—	100	lm
		G	170	—	200	
		B	25	—	40	
		W	200	—	255	
Forward Voltage	V_f	R	2.0	2.4	2.8	V
		G	2.9	3.2	3.8	
		B	2.9	3.2	3.8	
		W	2.9	3.2	3.8	
Dominant Wavelength	λ_d	R	619	624	629	nm
		G	520	525	530	
		B	450	455	460	
Peak-emission Wavelength	λ_p	R	630	635	640	nm
		G	514	519	524	
		B	446	451	456	
Correlated Colour Temperature	CCT	W	6000	6500	8000	K
Color Rendering Index	Ra	W	—	—	—	—
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	—	120	—	Deg
			—	120	—	
Reverse Current	$I_R: V_R=10V$	R	—	—	2	μA
	$I_R: V_R=7V$	G	—	—	2	
		B	—	—	2	
	I_R	W	Not designed for reverse operation			
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	0.8	—	K/W

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: $\pm 10\%$.
4. Forward voltage measurement tolerance: $\pm 3\%$.
5. Ra measurement tolerance: ± 2 .

Part No.	TX-5060RGBW15FC120-NUVCNG-02B	Spec No.	WKF-FC0008	Page	4 of 9
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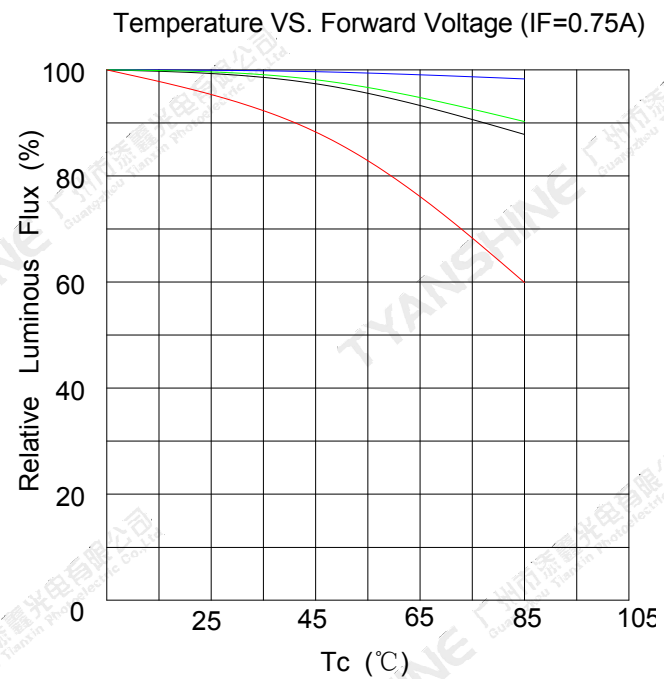
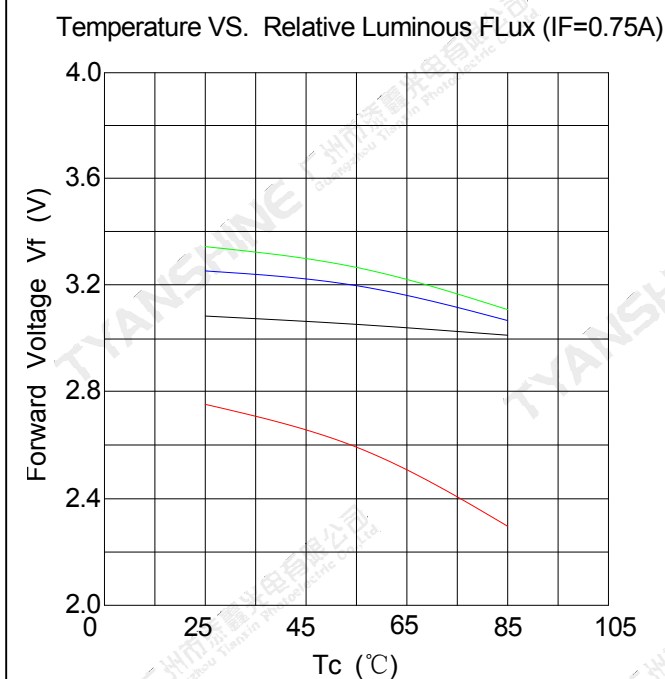
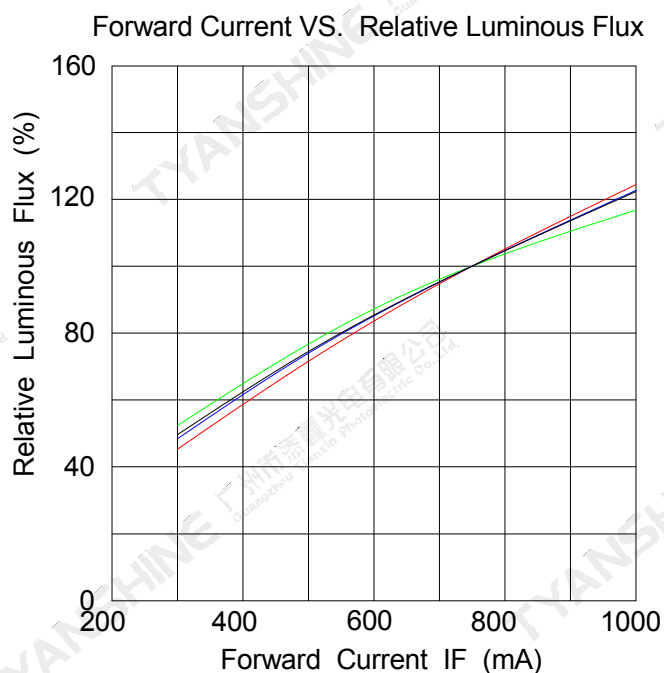
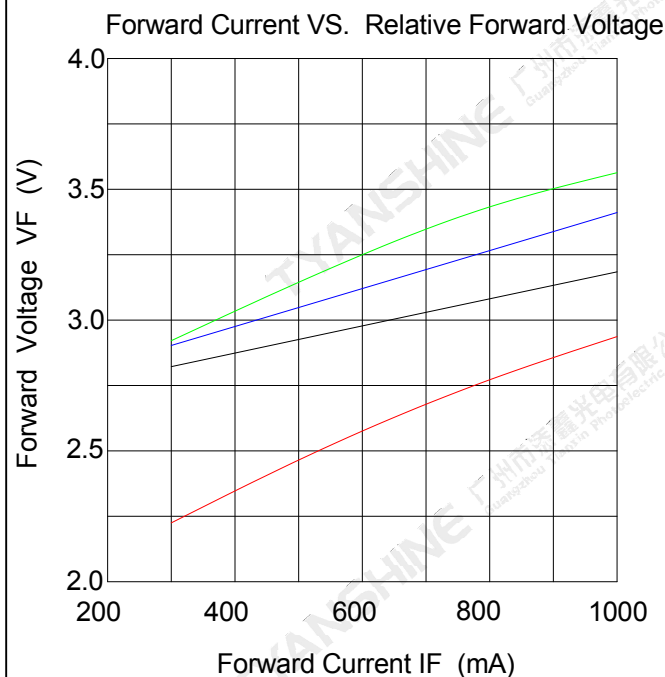
White light Color coordinate filing IF=0.75A



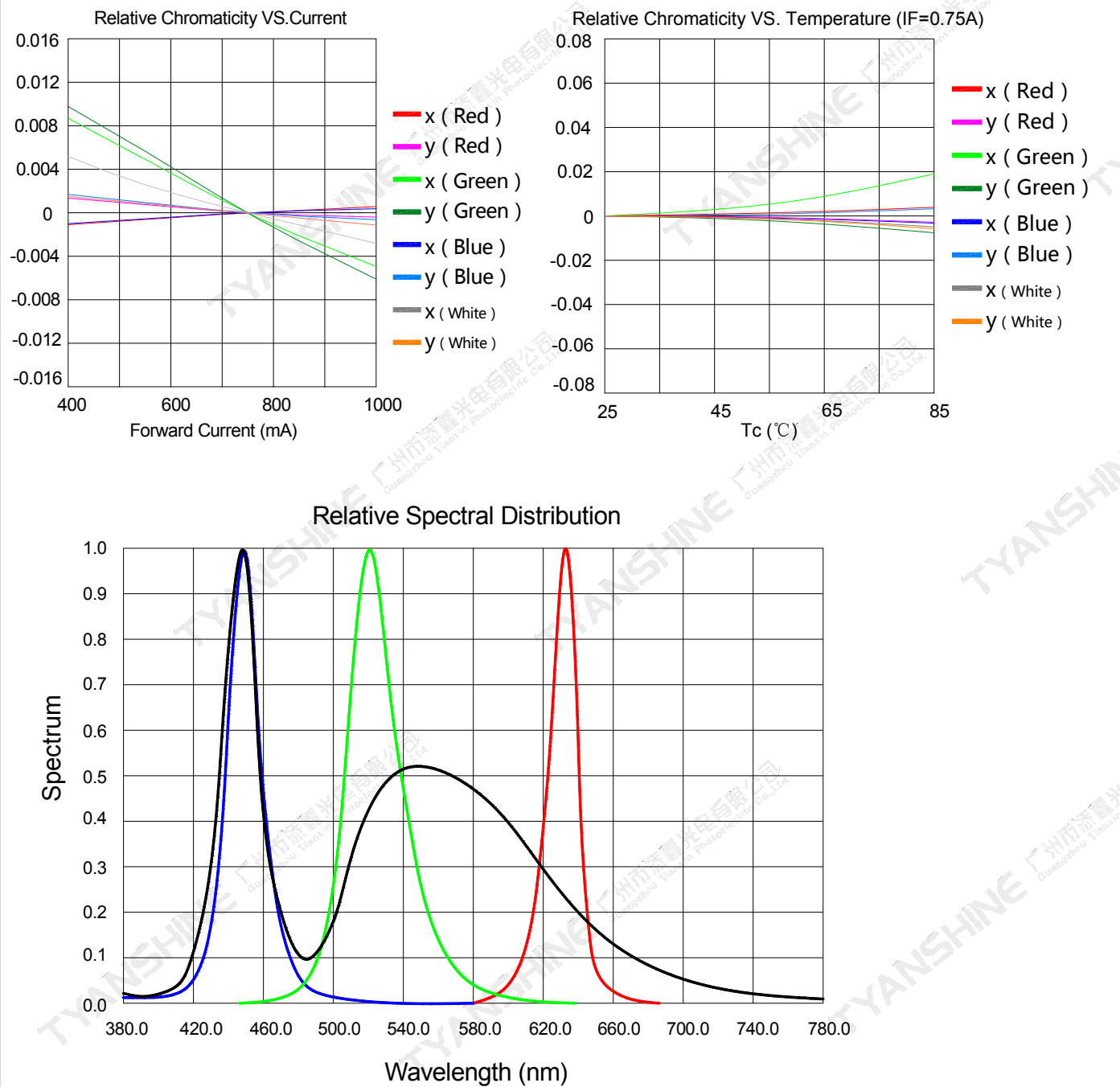
Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
1C	6000	6500	0.3211	0.3448	0.3199	0.3589	0.3112	0.3401	0.3132	0.3265
1A	6500	7000	0.3133	0.3255	0.3113	0.3391	0.3048	0.3241	0.3071	0.3128
OU	7000	7500	0.3073	0.3119	0.305	0.3231	0.3	0.3114	0.3026	0.3012
OR	7500	8000	0.3029	0.3002	0.3003	0.3103	0.2963	0.3012	0.2992	0.2918

Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



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



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

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

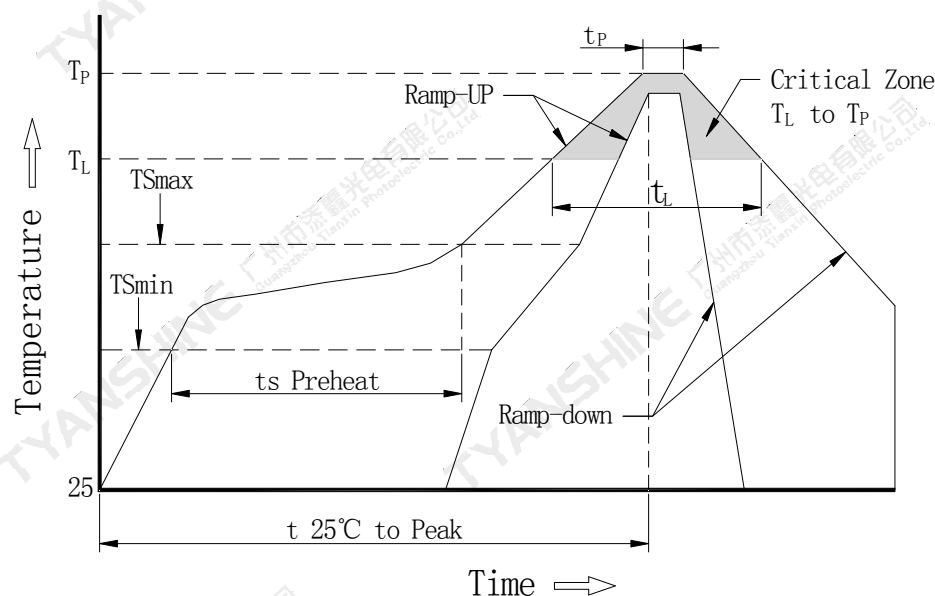
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



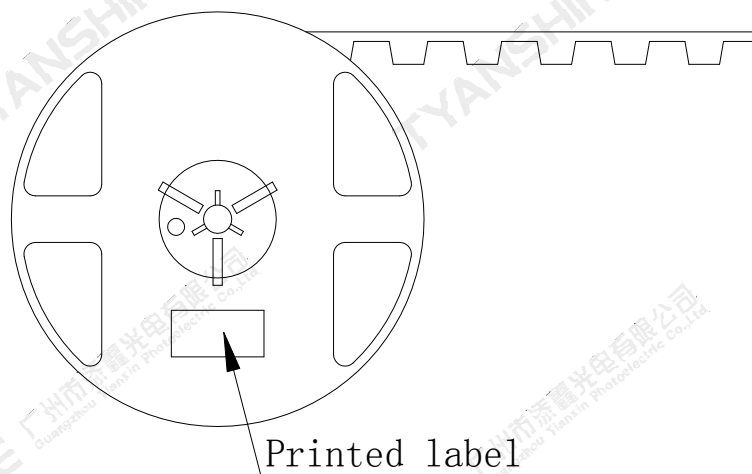
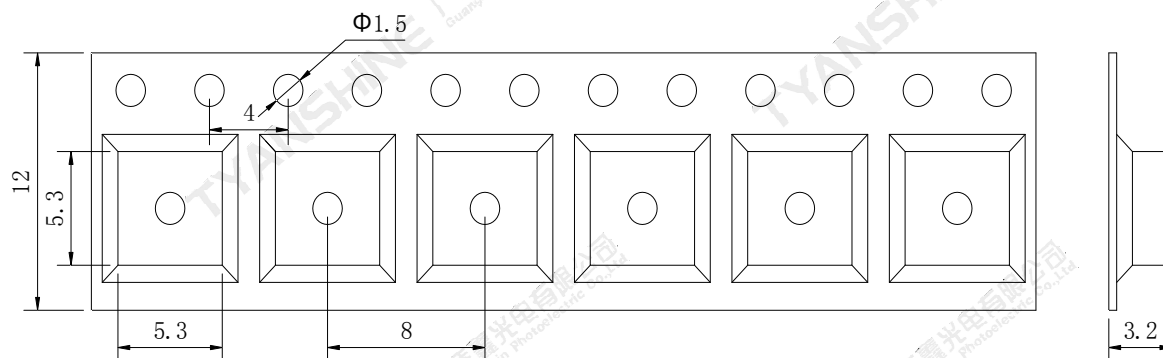
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)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