TX-5060RGBS20FC120-NUVCNG-02H80

PRODUCT SPECIFICATION

Features:

◆Excellent transiting heat from LED chip operating under R/B/G/S:IF=1.0A.

◆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

◆Warm white:GaInN

Emitting Color:

◆Red（R）

◆Green（G）

◆Blue（B）

◆Warm white（S）

Applications:

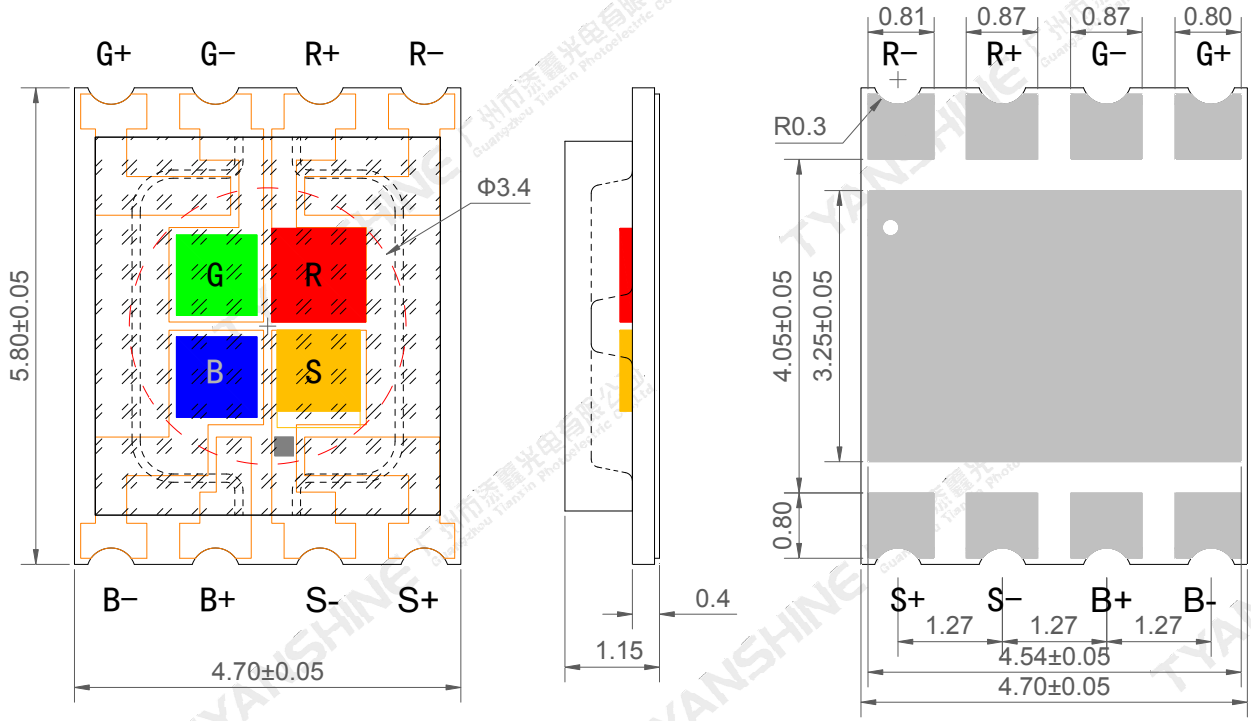
◆Auxiliary lighting

◆Ambient lighting

◆Architectural lighting

◆Entertainment lighting

Package Dimensions:



Notes:

1.All dimensions are in millimeters .

2.Tolerances unless otherwise mentioned are ±0.1mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Ratings	Unit
Forward Current	IF	R	2.0	A
		G	1.5	
		B	1.5	
		S	1.5	
Reverse Voltage	V_R		Not designed for reverse operation	V
Power Dissipation	P_D	R	4.5	W
		G	5.6	
		B	5.1	
		S	5.2	
Junction Temperature	Tj	R	115	℃
		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	

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.

Electrical Optical Characteristics (Tc=25°C,IF=1.0A)

Parameter	Symbol	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	R	95	—	110	lm
		G	210	—	240	
		B	35	—	45	
		S	230	—	260	
Forward Voltage	V_f	R	2.0	—	2.8	V
		G	3.0	—	3.6	
		B	3.0	—	3.6	
		S	3.0	—	3.6	
Dominant Wavelength	λd	R	620	625	630	nm
		G	520	525	530	
		B	450	455	460	
Peak-emission Wavelength	λp	R	630	635	640	nm
		G	515	520	525	
		B	446	451	456	
Correlated Colour Temperature	CCT	S	2900	3000	3130	K
Color Rendering Index	Ra	S	80	80	—	—
Viewing Angle at 50％IV	$2\theta_{1/2}$	—	—	120	—	Deg
			—	120	—	
Reverse Current	V_R=5V	R	—	—	2	μA
		G	—	—	2	
		B	—	—	2	
	—	S	Not designed for reverse operation			
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	0.8	—	K/W
Temperature Coefficient of Voltage	V△F/T	R	—	-3.12	—	mV/℃
		G	—	-7.6	—	
		B	—	-3.75	—	
		S	—	-3.1	—	

Notes:

1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

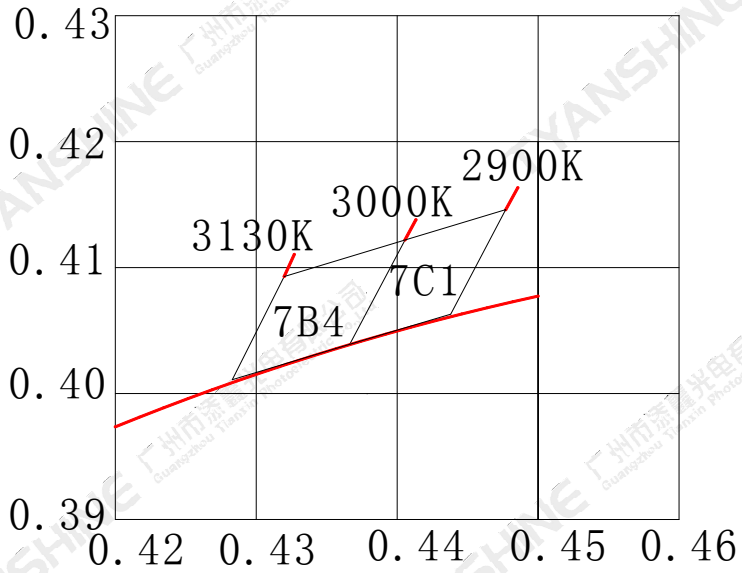
2.$\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3.Luminous flux measurement tolerance:±10%.

4.Forward voltage measurement tolerance:±3%.

5.Ra measurement tolerance:±2.

White light Color coordinate filing Tc=25°C,IF=1.0A

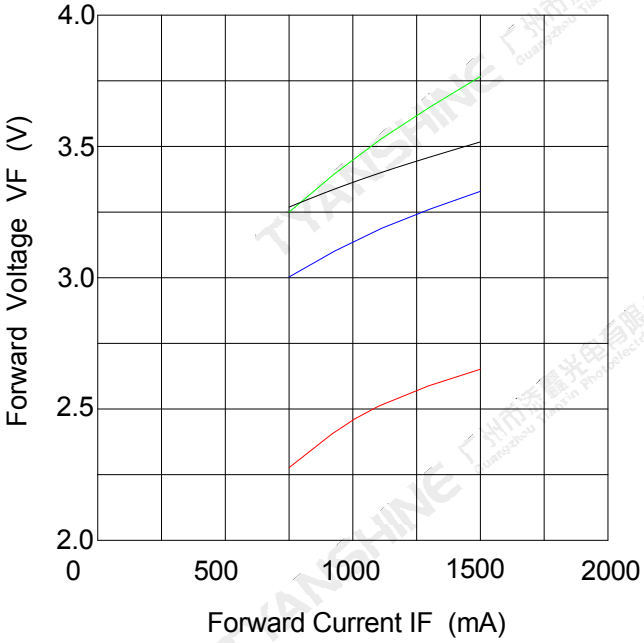


Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
7C1	2900K	3000K	0.4438	0.4063	0.4477	0.4146	0.4406	0.4122	0.4366	0.4039
7B4	3000K	3130K	0.4366	0.4039	0.4406	0.4122	0.432	0.4093	0.4283	0.4011

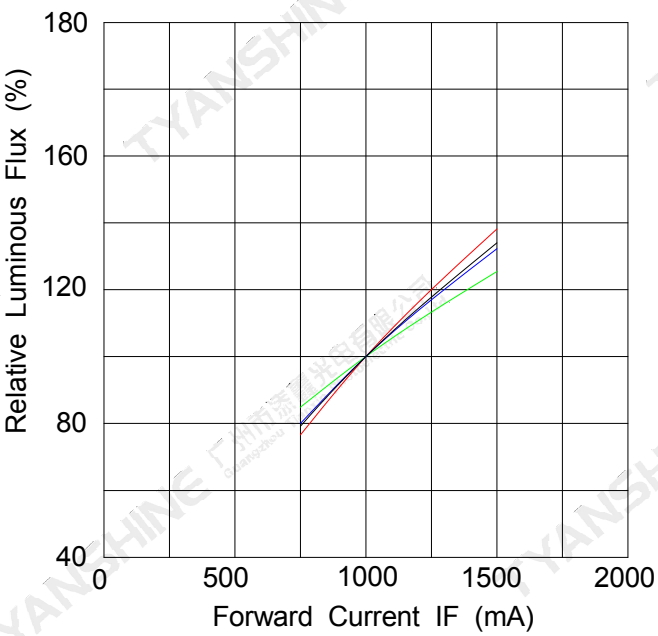
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

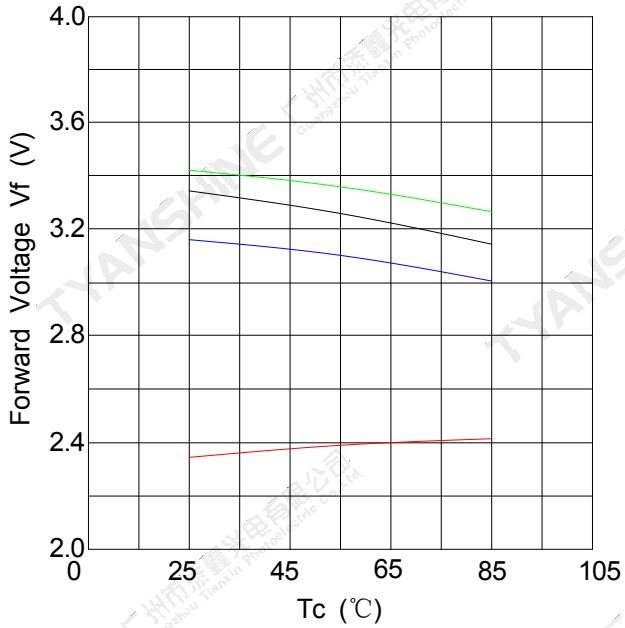
Forward Current VS. Relative Forward Voltage



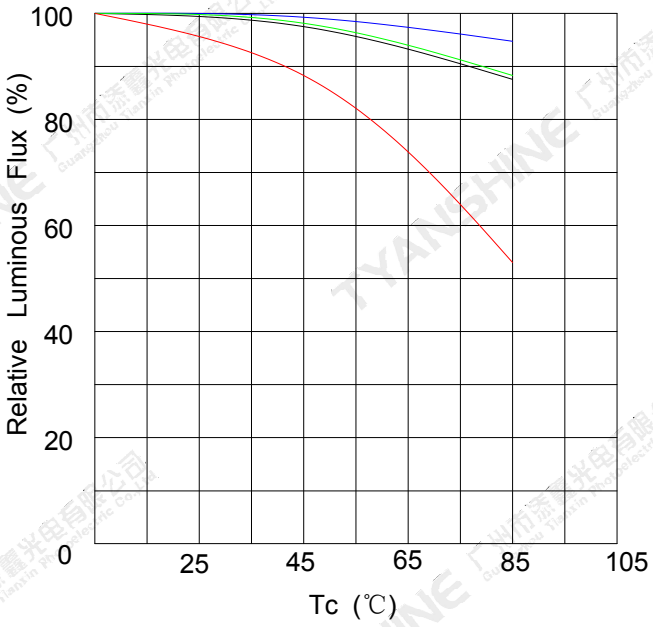
Forward Current VS. Relative Luminous Flux



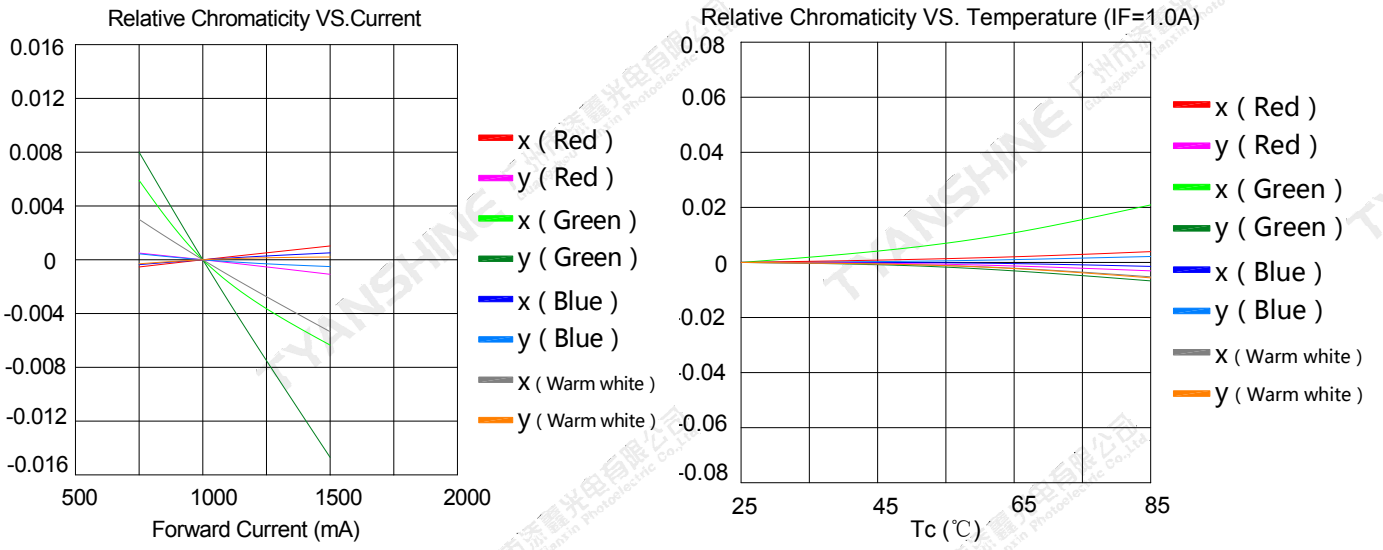
Temperature VS. Relative Luminous FLux (IF=1.0A)

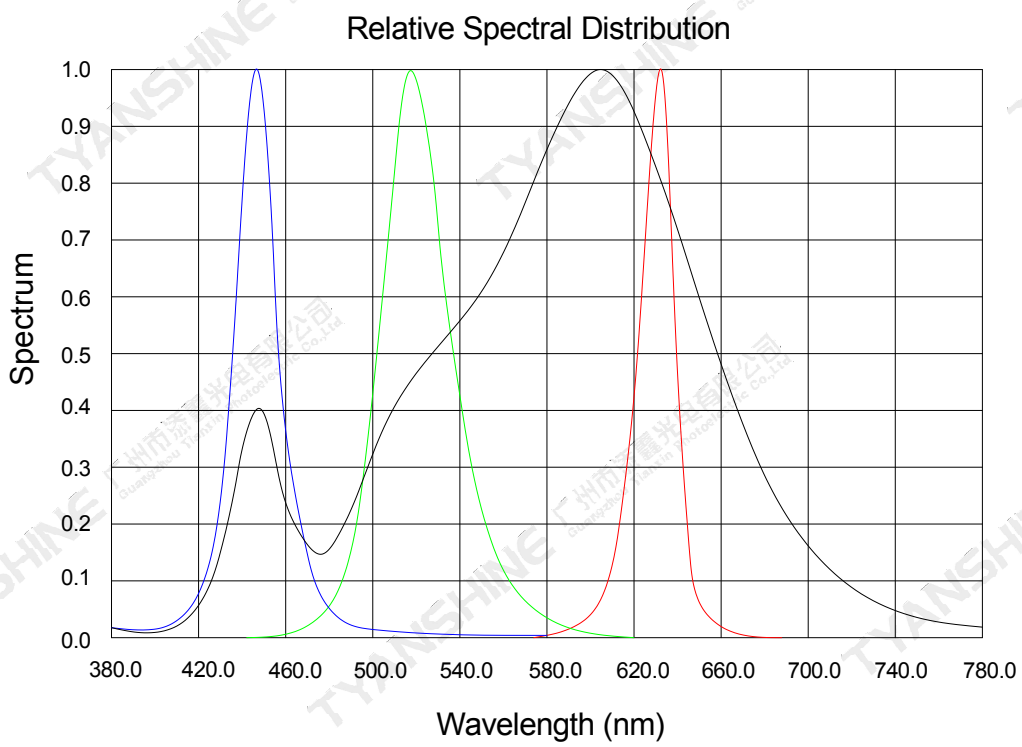


Temperature VS. Forward Voltage (IF=1.0A)



Notes: Red (R); Green (G); Blue (B); Lime (L);





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

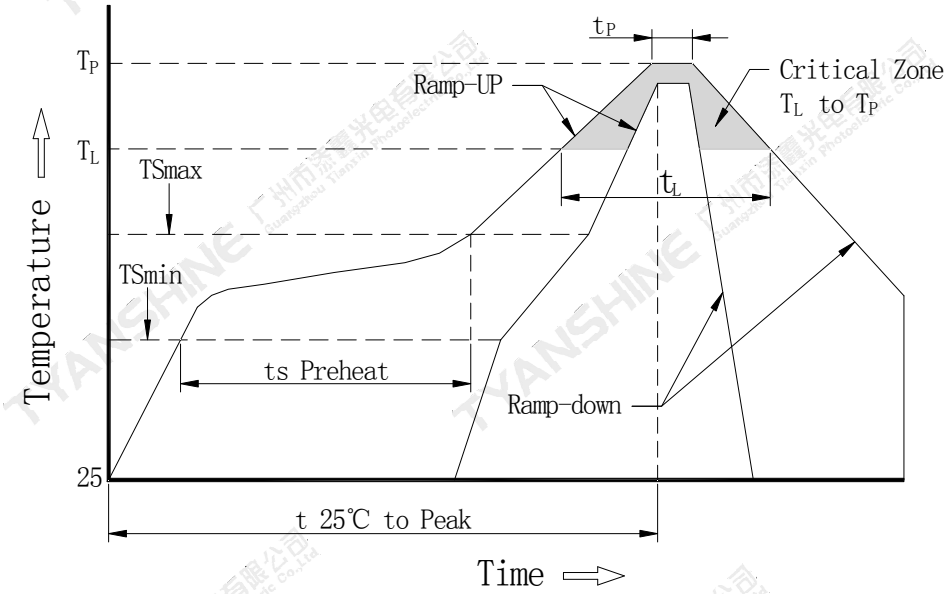
Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



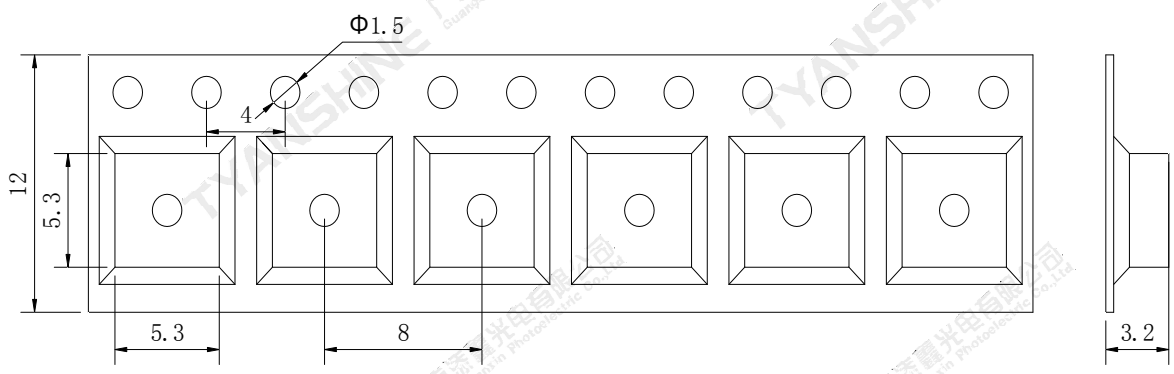
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (Ts_{max} to T_p)	3℃/second max.
Preheat: Temperature Min (Ts_{min})	100℃
Preheat: Temperature Max (Ts_{max})	150℃
Preheat: Time (Ts_{min} to Ts_{max})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183℃
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	225℃
Time Within 5℃ of Actual Peak Temperature (T_P)	10-30 seconds
Ramp-Down Rate	6℃/second max.
Time 25℃ to Peak Temperature	6 minutes max.

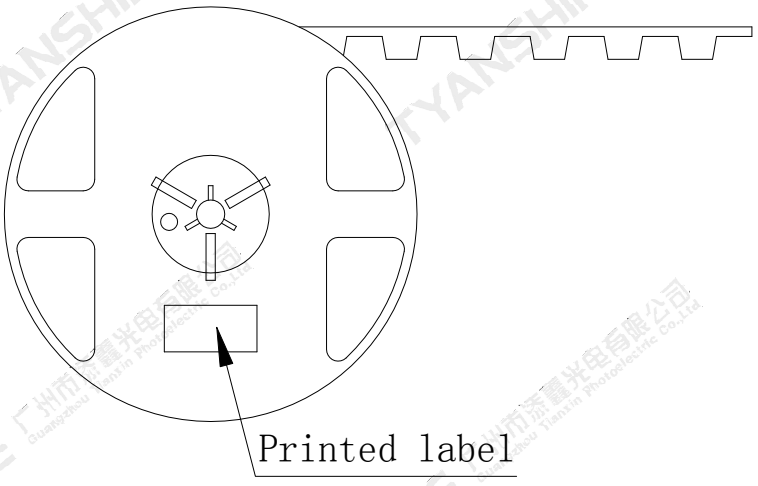
Note:

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

Dimensions For Cannulation And Packaging

Quantity:500PCS





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.