

TX-3535BPG5F07-RGBX

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)
- ◆White (W)

Applications:

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

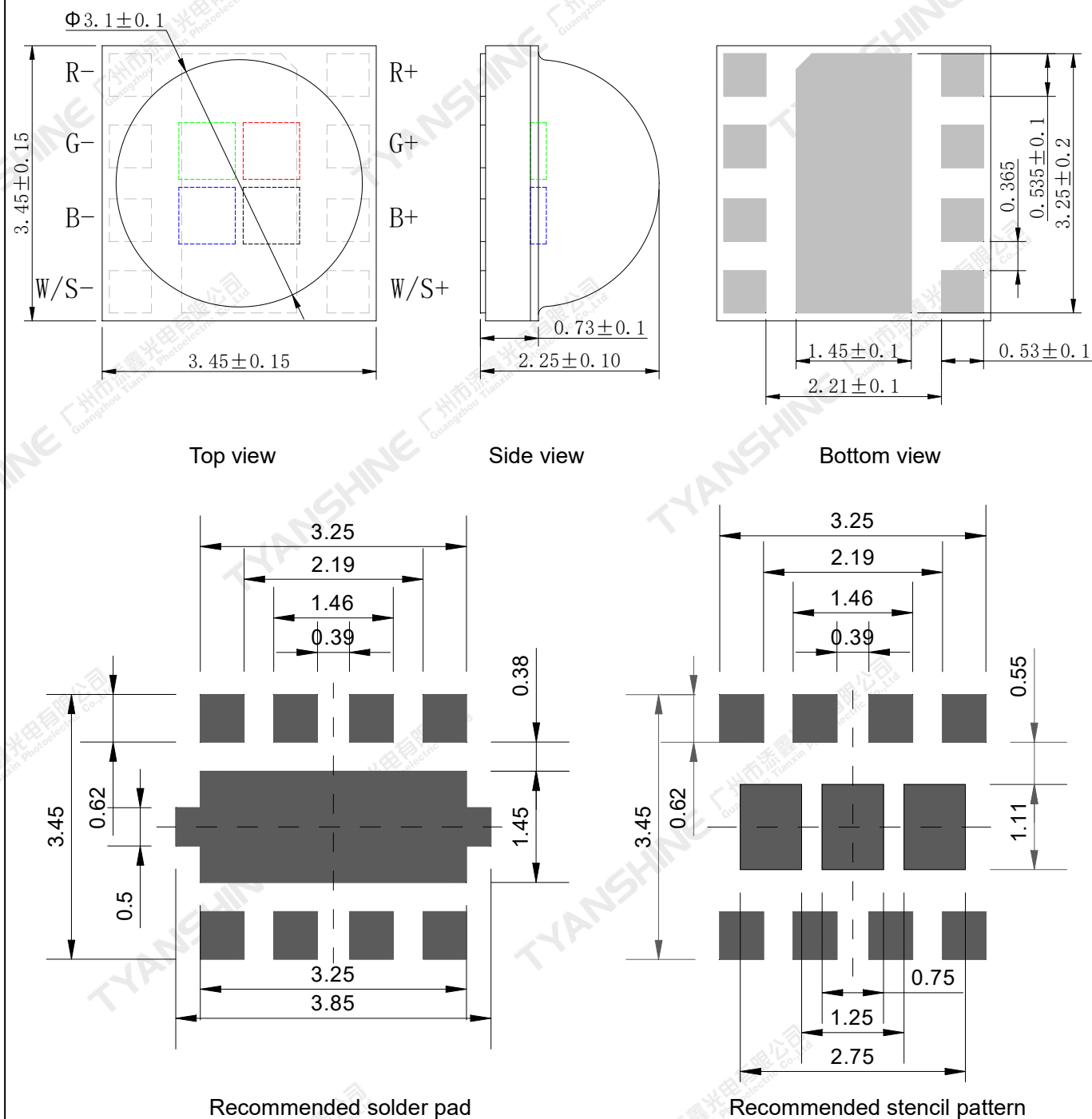
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Ordering Information (IF=350mA)

TX-3535BPG5F07-RGBX

Product model	Color	Region	Luminous Flux	Ra
TX-3535RGBW5MCD1-0G4DB-01 H80	R	620-625nm	45-60	/
	G	520-532nm	105-135	/
	B	457-467nm	20-35	/
	W _(4000K)	4D1、4D2、5A1、5A2、5A3、 5B1、5B3、5B4、5C1、5D1、 5D2	110-140	80-85
	W _(6300K)	2A、1D2、1D1	120-145	80-85
TX-3535RGS5MCD1-0G4DB-01 H80	R	620-625nm	45-60	/
	G	520-532nm	105-135	/
	B	457-467nm	20-35	/
	S _(3000K)	7A2、7A3、7B1、7B2、7B3、 7B4、7C1、7C2、7C3、7C4、 7D2、7D3	105-135	80-85
TX-3535RGL5MCD1-0G4DB-01	R	620-625nm	48-58	/
	G	523-528nm	110-130	/
	B	455-460nm	21-26	/
	L _(4000K)	J8	135-155	/

Package Dimensions:



Notes:

1. All dimensions are in millimeters .
2. Tolerances unless otherwise mentioned are ± 0.15 mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Max Ratings	Unit
Forward Current	IF		500	mA
Reverse Voltage	VR		Not designed for reverse operation	V
Power Dissipation	PD	R	1300	mW
		G	1650	
		B	1700	
		W/S	1700	
Junction Temperature	Tj	R	125	℃
		G	150	
		B	150	
		W/S	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	Tstg		-40~70	℃
Operation Temperature	Topr		-30~85	
Ceramic side temperature(notes 4)	Tcs		85	

Notes:

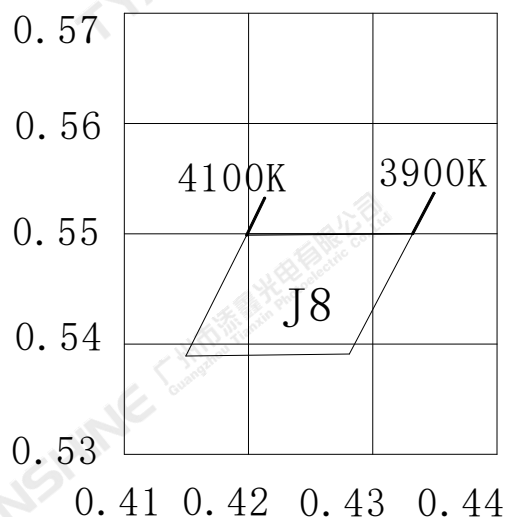
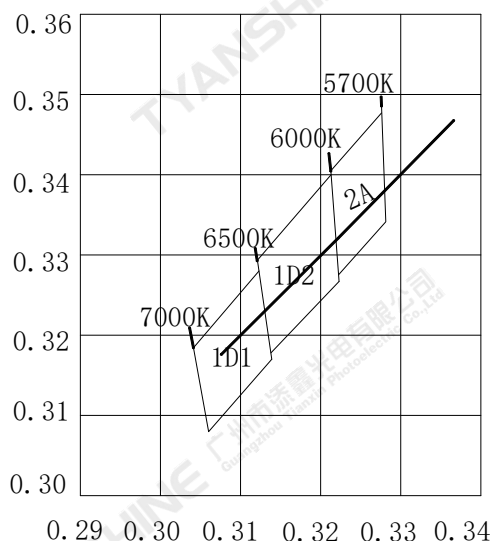
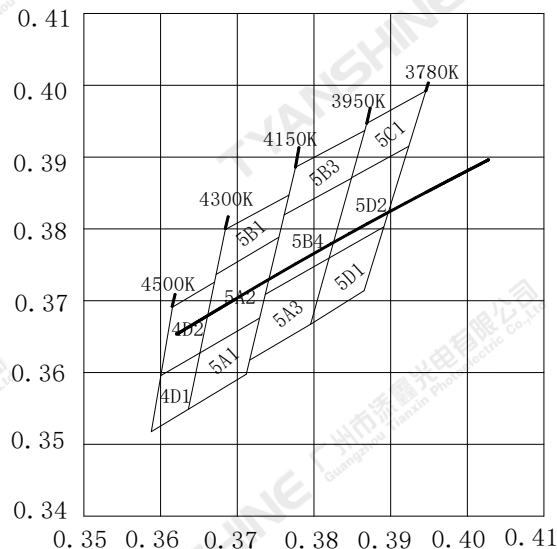
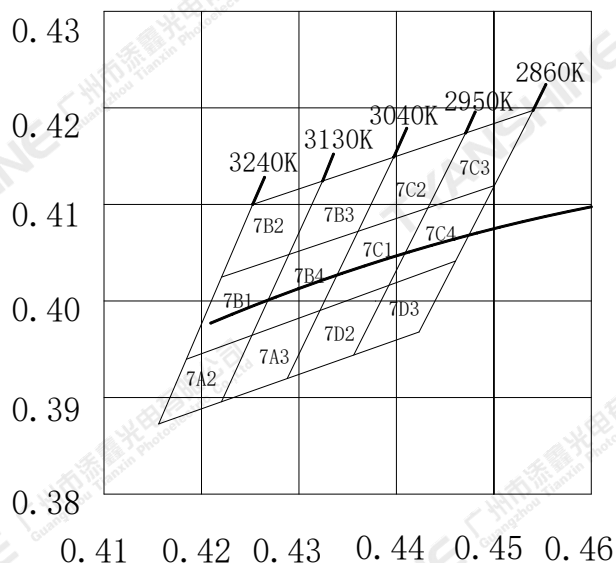
- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- Precautions for ESD:
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
- Temperature on the side of the ceramic substrate near the heat sink.

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Electrical Optical Characteristics (Tc=25°C, IF=350mA)

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	Φ_v	R	45	50	60	lm
		G	105	120	135	
		B	20	28	35	
		W	110	125	145	
		S	105	120	135	
		L	135	145	155	
Dominant Wavelength	λ_d	R	620	622	625	nm
		G	520	526	532	
		B	455	462	467	
Correlated Colour Temperature	CCT	$W_{(4000K)}$	3780	4000	4500	K
		$W_{(6000K)}$	5700	6300	7000	
		$S_{(3000K)}$	2860	3000	3240	
		$L_{(4000K)}$	3900	4000	4100	
Color Rendering Index	Ra	W	80	82.5	—	—
Peak-emission Wavelength	λ_p	R	627	629	632	nm
		G	513	519	525	
		B	450	457	462	
Spectral Line Half-Width	$\Delta\lambda$	R	10	15	20	nm
		G	25	30	35	
		B	15	20	25	
		W	15	20	25	
		S	125	135	145	
		L	95	105	115	
Forward Voltage	V_f	R	2.0	2.3	2.6	V
		G	2.7	3.0	3.3	
		B	2.8	3.1	3.4	
		W/S/L	2.8	3.1	3.4	
Reverse Current	I_R	$V_R=5V$	—	—	5	μA
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R\theta_{J-C}$	Total thermal resistance	—	9	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	R	—	-2.0	—	mV/°C
		G	—	-5.8	—	
		B	—	-1.6	—	
		W/S/L	—	-1.6	—	

White Color coordinate filing (IF=350mA)



Notes:

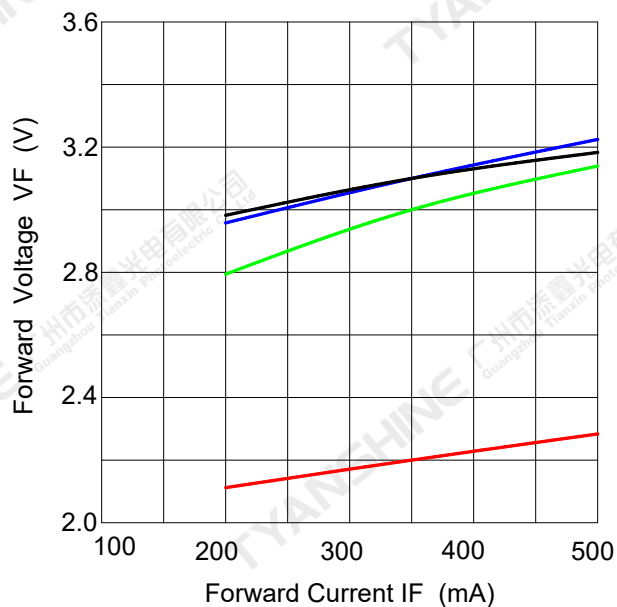
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.Luminous flux measurement tolerance: $\pm 10\%$.
- 4.Forward voltage measurement tolerance: $\pm 0.3V$.
- 5.Ra measurement tolerance: ± 2 .

Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
7D3	2860K	2950K	0.4356	0.3944	0.4392	0.4016	0.4461	0.4041	0.4423	0.3968
7C4			0.4392	0.4016	0.4432	0.4096	0.4501	0.4120	0.4461	0.4041
7C3			0.4432	0.4096	0.4471	0.4174	0.4540	0.4197	0.4501	0.4120
7D2	2950K	3040K	0.4288	0.3920	0.4322	0.3990	0.4392	0.4016	0.4356	0.3944
7C1			0.4322	0.3990	0.4361	0.4072	0.4432	0.4096	0.4392	0.4016
7C2			0.4361	0.4072	0.4397	0.4149	0.4471	0.4174	0.4432	0.4096
7A3	3040K	3130K	0.4220	0.3896	0.4252	0.3964	0.4322	0.3990	0.4288	0.3920
7B4			0.4252	0.3964	0.4290	0.4048	0.4361	0.4072	0.4322	0.3990
7B3			0.4290	0.4048	0.4324	0.4124	0.4397	0.4149	0.4361	0.4072
7A2	3130K	3240K	0.4156	0.3873	0.4185	0.3940	0.4252	0.3964	0.4220	0.3896
7B1			0.4185	0.3940	0.4221	0.4025	0.4290	0.4048	0.4252	0.3964
7B2			0.4221	0.4025	0.4253	0.4100	0.4324	0.4124	0.4290	0.4048
5D1	3780K	3950K	0.3796	0.3667	0.3820	0.3759	0.3891	0.3803	0.3865	0.3714
5D2			0.3820	0.3759	0.3849	0.3871	0.3924	0.3915	0.3891	0.3803
5C1			0.3849	0.3871	0.3869	0.3947	0.3946	0.3992	0.3924	0.3915
5A3	3950K	4150K	0.3716	0.3617	0.3737	0.3709	0.3820	0.3759	0.3796	0.3667
5B4			0.3737	0.3709	0.3761	0.3820	0.3849	0.3870	0.3820	0.3759
5B3			0.3761	0.3820	0.3776	0.3886	0.3866	0.3937	0.3849	0.3870
5A1	4150K	4300K	0.3636	0.3549	0.3651	0.3627	0.3729	0.3676	0.3712	0.3598
5A2			0.3651	0.3627	0.3672	0.3737	0.3754	0.3788	0.3729	0.3676
5B1			0.3672	0.3737	0.3684	0.3799	0.3767	0.3847	0.3754	0.3788
4D1	4300K	4500K	0.3588	0.3518	0.3600	0.3596	0.3651	0.3627	0.3636	0.3549
4D2			0.3600	0.3596	0.3616	0.3691	0.3670	0.3726	0.3651	0.3627
2A	5700K	6000K	0.3222	0.3275	0.3213	0.3405	0.3276	0.3477	0.3281	0.3341
1D2	6000K	6500K	0.3138	0.3178	0.3121	0.3293	0.3213	0.3400	0.3223	0.3267
1D1	6500K	7000K	0.3060	0.3080	0.3041	0.3184	0.3123	0.3280	0.3139	0.3170
J8	3900K	4100K	0.4149	0.5389	0.4198	0.5499	0.4332	0.5500	0.4281	0.5391

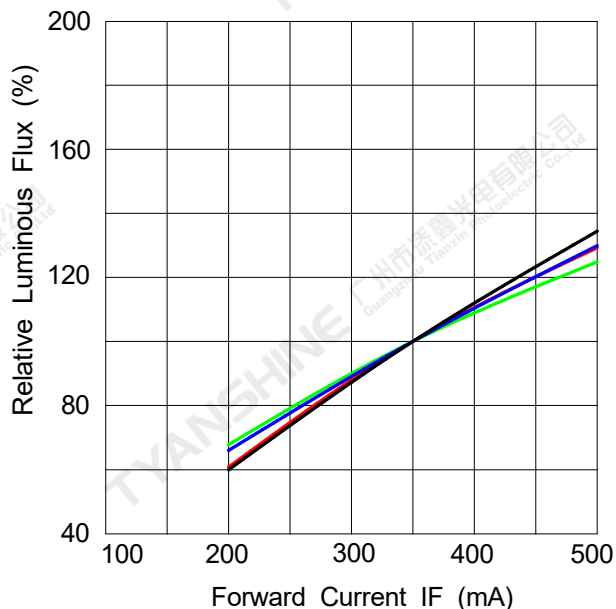
Typical Electrical/Optical Characteristics Curves(IF=350mA)

(25°C Ambient Temperature Unless Otherwise Noted)

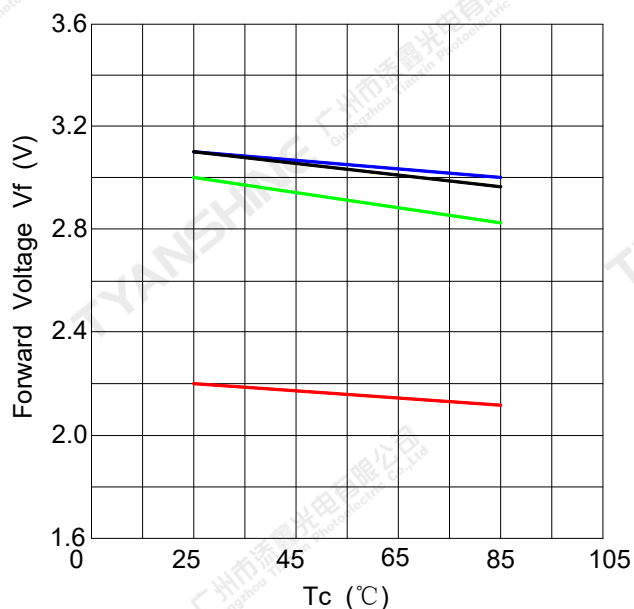
Forward Current VS. Relative Forward Voltage



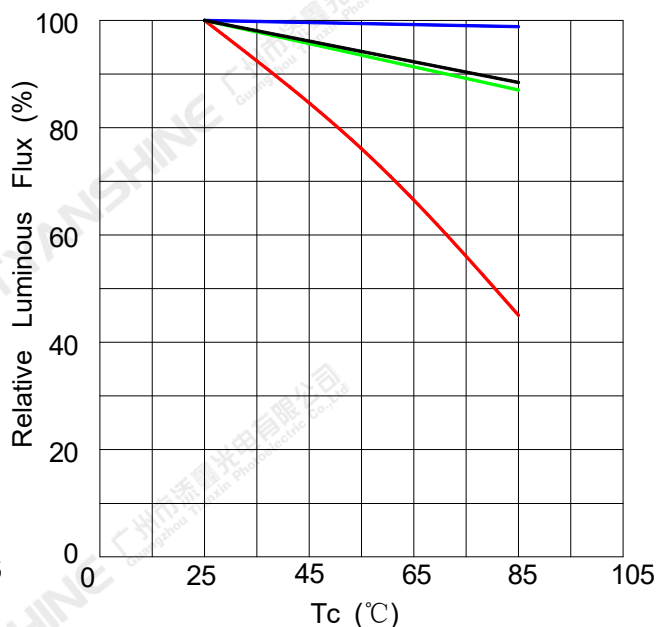
Forward Current VS. Relative Luminous Flux

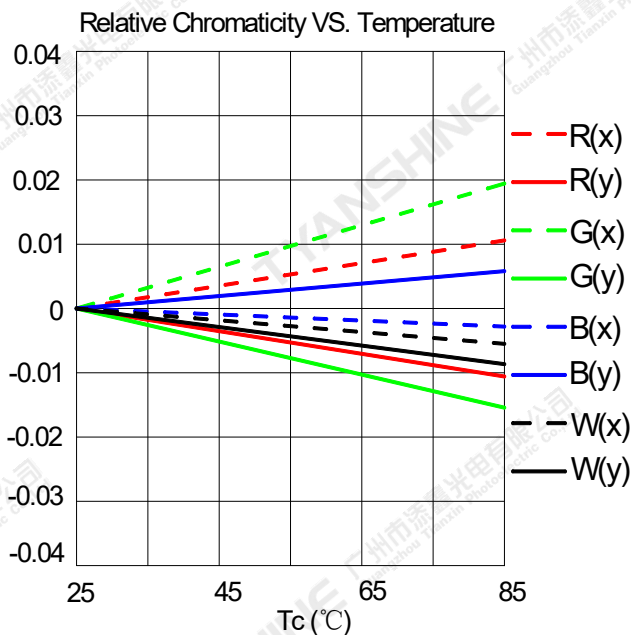
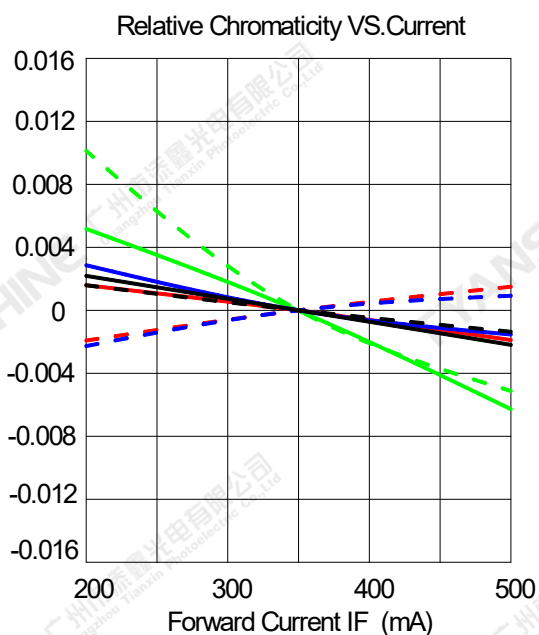


Temperature VS. Relative Forward Voltage

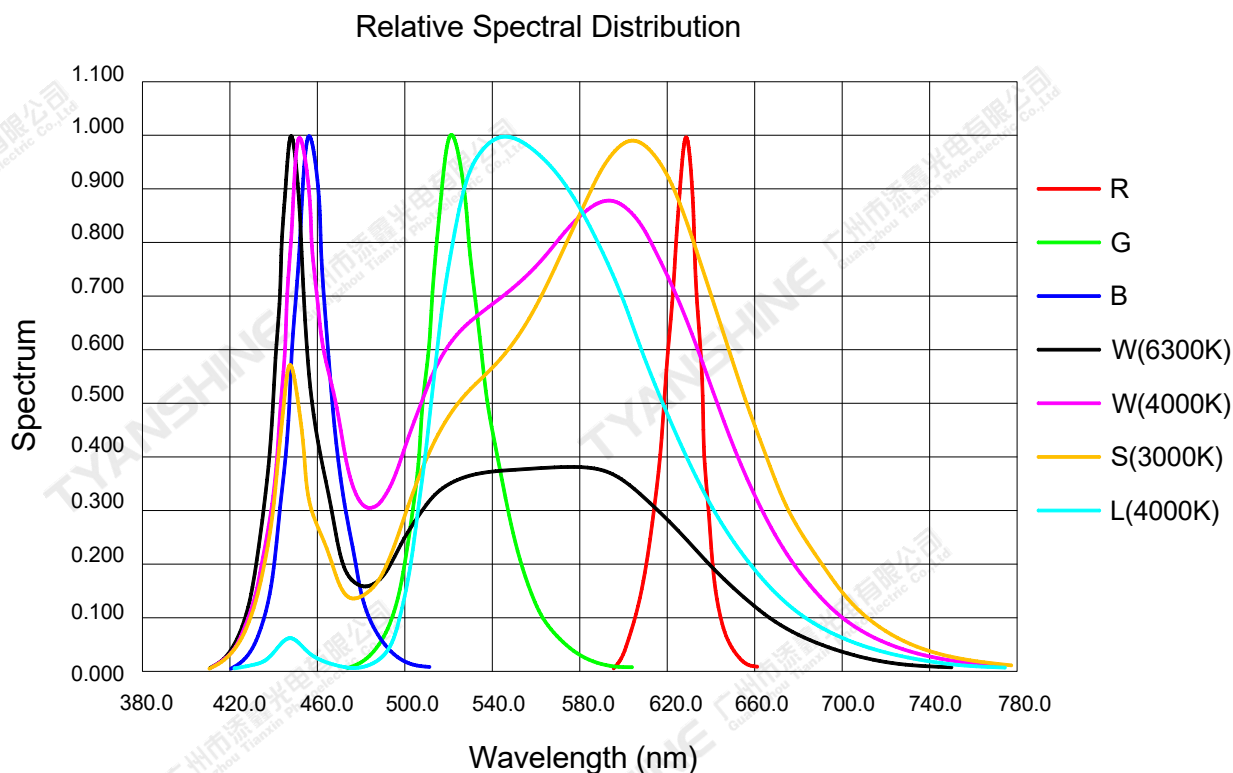


Temperature VS. Relative Luminous FLux

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



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

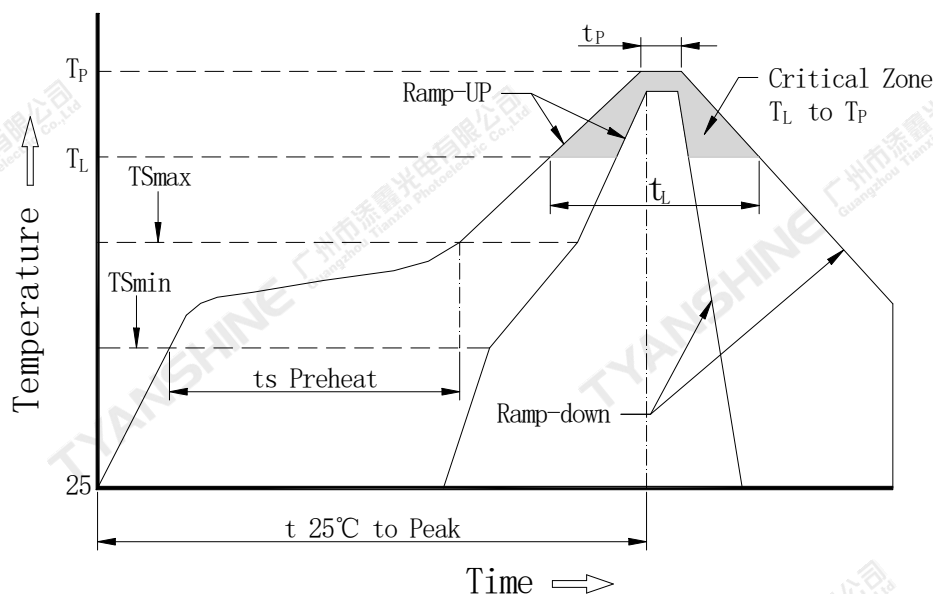
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

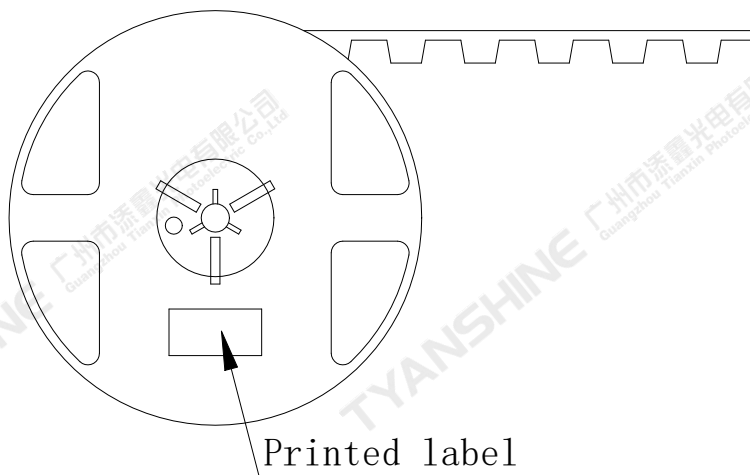
Use the conditions shown to the under figure.



Profile Feature	Lead-Free Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	1.2°C/second
Preheat: Temperature Min (T_{Smin})	120°C
Preheat: Temperature Max (T_{Smax})	170°C
Preheat: Time (T_{Smin} to T_{Smax})	65-150 seconds
Time Maintained Above: Temperature (T_L)	217°C
Time Maintained Above: Time (T_L)	45-90 seconds
Peak/Classification Temperature (T_P)	235-245°C
Time Within 5°C of Actual Peak Temperature (T_P)	20-40 seconds
Ramp-Down Rate	1-6°C/second
Time 25°C to Peak Temperature	4 minutes max.

Note:

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



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

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