

TX-3535RGBW4VSD1-0G4DE-01H80

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 400mA
- ◆High luminous output
- ◆No UV

Chip Material:

- ◆Red: AlGaInP
- ◆Green: GaInN
- ◆Blue: GaInN
- ◆White: GaInN

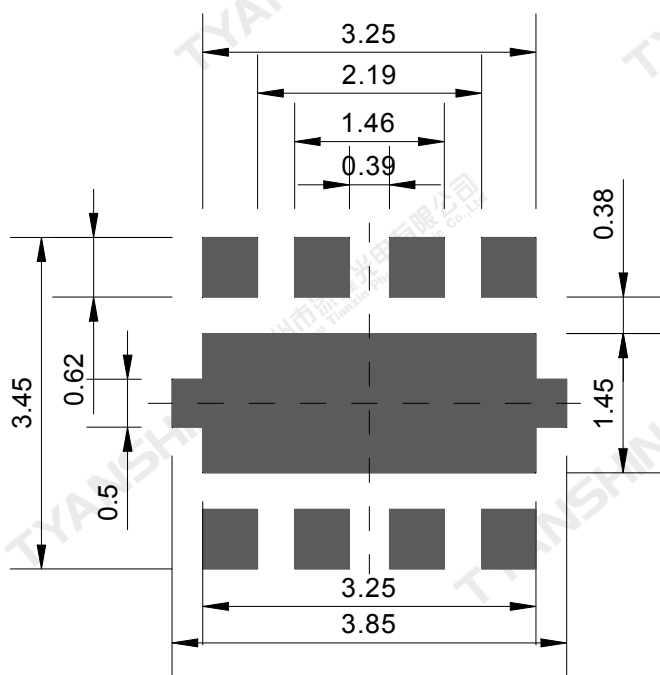
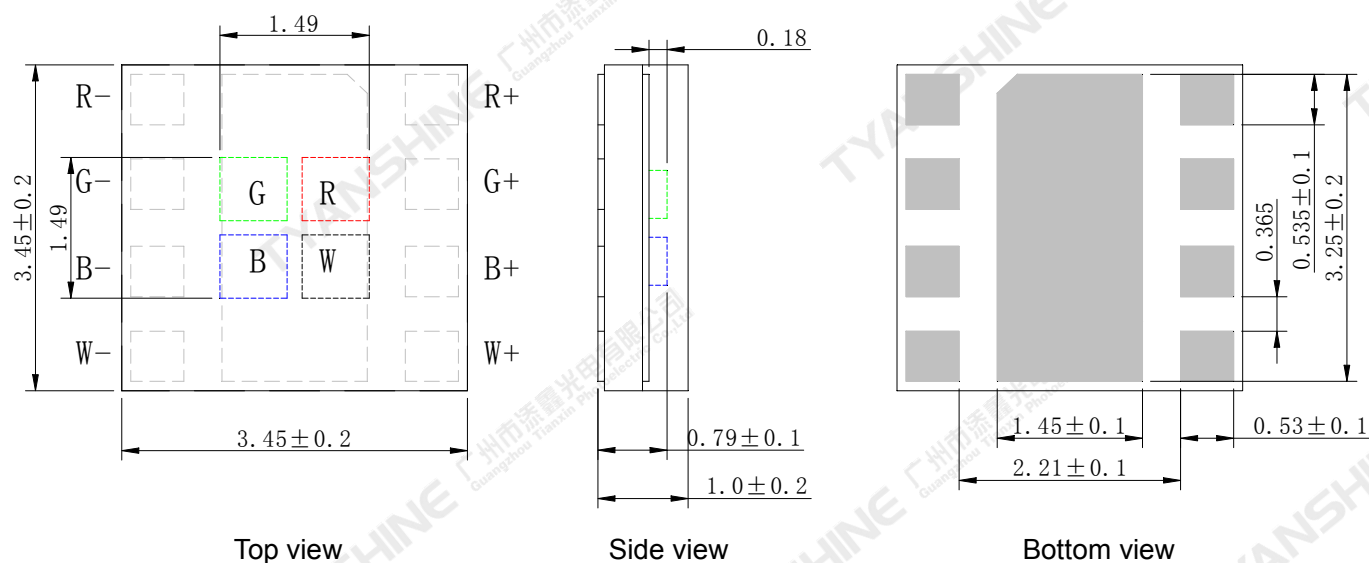
Emitting Color:

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

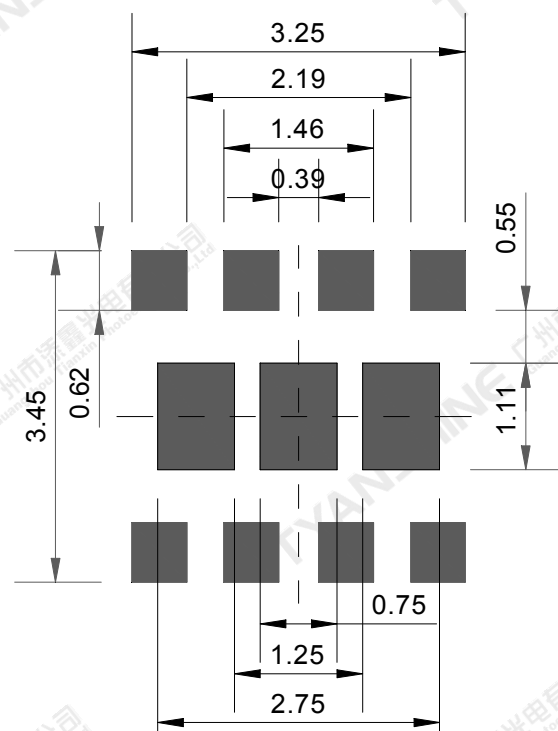
Applications:

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

Package Dimensions:



Recommended solder pad



Recommended stencil pattern

Notes:

1. All dimensions are in millimeters .
2. Tolerances unless otherwise mentioned are ± 0.1 mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Max Ratings	Unit
Forward Current	I _F		400	mA
Peak Forward Current (Note 1)	I _{FP}		600	
Reverse Voltage	V _R		7	V
Power Dissipation	P _D	R	910	mW
		G	1260	
		B	1260	
		W	1260	
Junction Temperature	T _j	R	115	℃
		G	150	
		B	150	
		W	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	T _{stg}		-40~70	℃
Operation Temperature	T _{opr}	R	-30~85	
		G	-30~105	
		B	-30~105	
		W	-30~105	

Note: 1.Pulse width ≤0.1 msec, duty ≤1/10.

Notes:

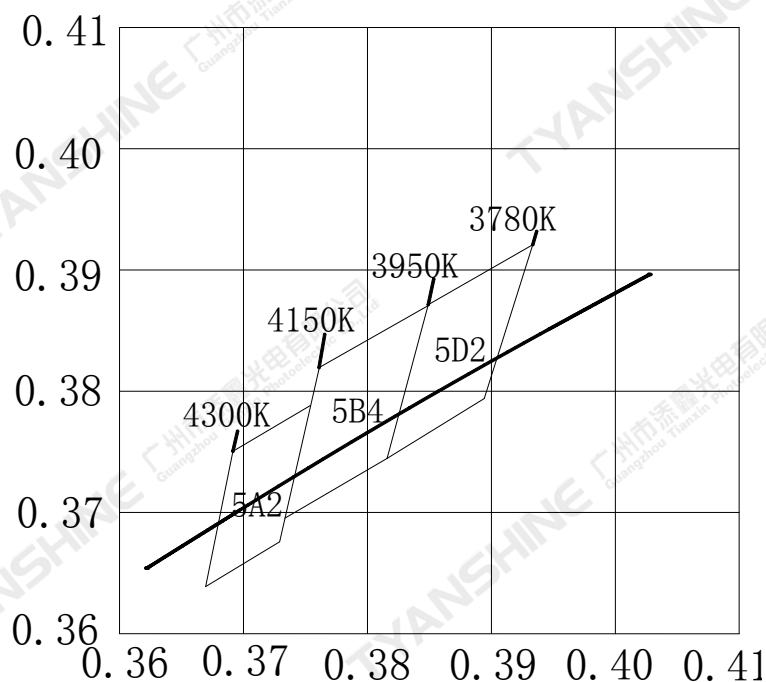
- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- Precautions for ESD:
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic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

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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	35	40	45	lm
		G	75	75	80	
		B	25	30	35	
		W	65	70	80	
Dominant Wavelength	λ_d	R	618	623	628	nm
		G	525	530	535	
		B	469	472	475	
Correlated Colour Temperature	CCT	W	3780	4050	4300	K
Color Rendering Index	Ra	W	80	82.5	—	—
Peak-emission Wavelength	λ_p	R	628	633	638	nm
		G	517	522	527	
		B	465	468	471	
Spectral Line Half-Width	$\Delta\lambda$	R	15	17.5	20	nm
		G	30	35	40	
		B	16	19	22	
		W	20	25	30	
Forward Voltage	V_f	R	2.0	2.3	2.6	V
		G	2.7	3.1	3.5	
		B	2.8	3.1	3.5	
		W	2.8	3.1	3.5	
Reverse Current	I_R	R	—	—	5	μA
		G	—	—	5	
		B	—	—	5	
		W	—	—	5	
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R_{\theta J-C}$	R	—	14	—	K/W
		G	—	14	—	
		B	—	14	—	
		W	—	14	—	
		Total thermal resistance	—	7.5	—	
Temperature Coefficient of Voltage	$V\Delta F/T$	R	—	-2.7	—	mV/°C
		G	—	-3.9	—	
		B	—	-1.6	—	
		W	—	-1.6	—	

White light Color coordinate filing (IF=350mA)



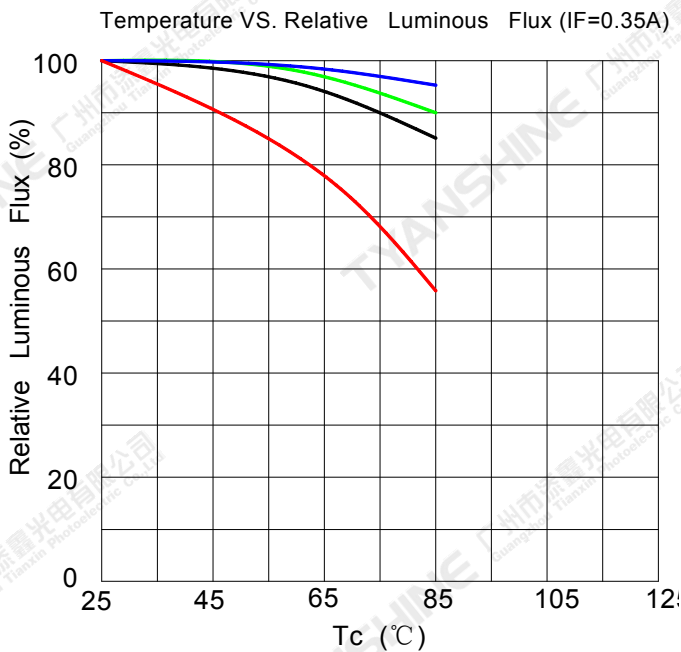
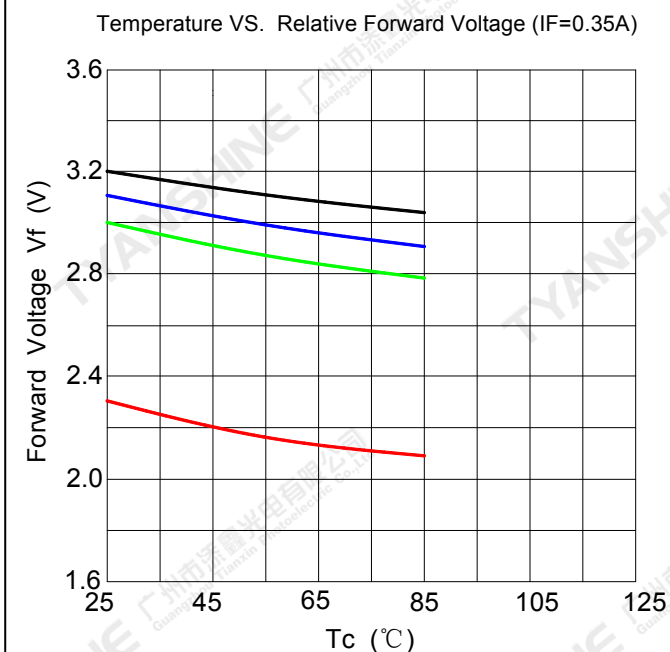
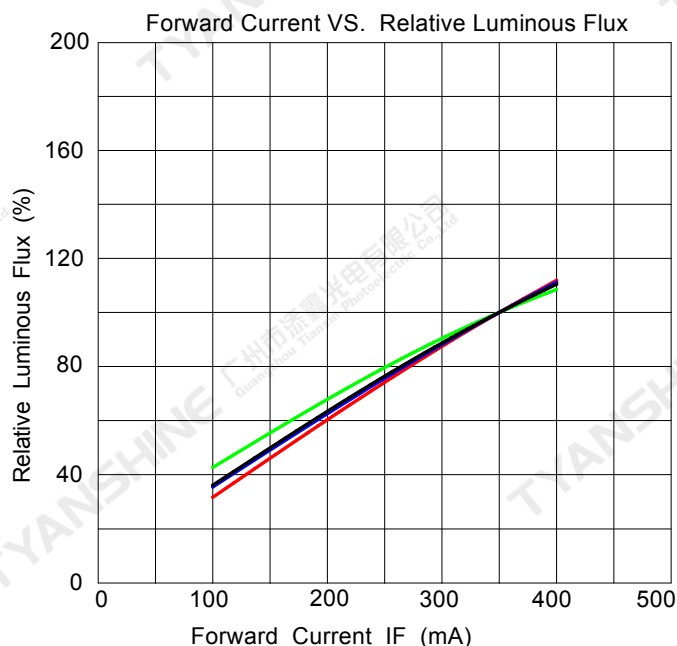
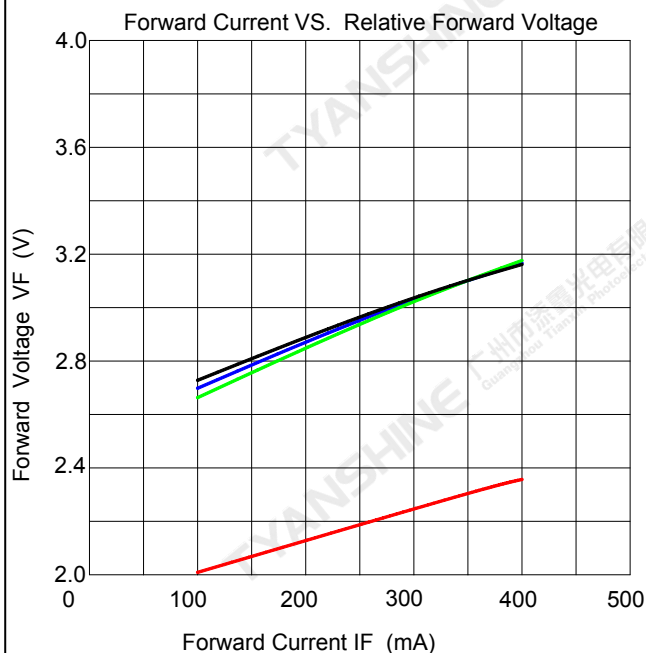
Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
5D2	3780K	3950K	0.3894	0.3794	0.3816	0.3745	0.3849	0.3871	0.3933	0.3921
5B4	3950K	4150K	0.3816	0.3745	0.3733	0.3695	0.3761	0.3820	0.3849	0.3870
5A2	4150K	4300K	0.3729	0.3676	0.3669	0.3639	0.3691	0.3750	0.3754	0.3788

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. The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
4. Luminous flux measurement tolerance: $\pm 15\%$.
5. Forward voltage measurement tolerance: $\pm 0.15V$.

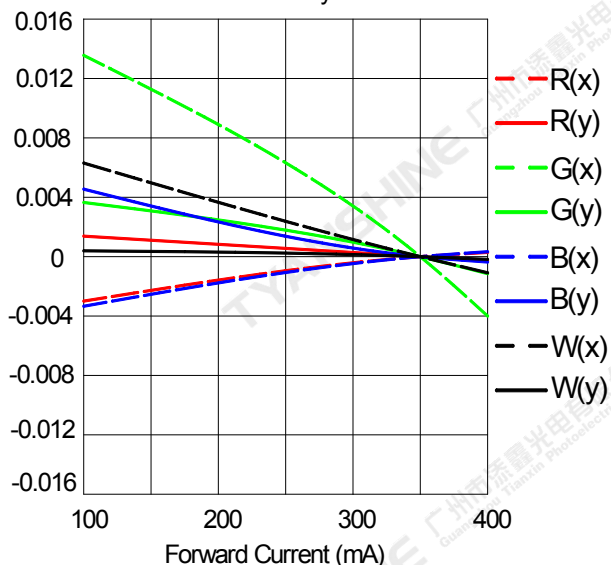
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

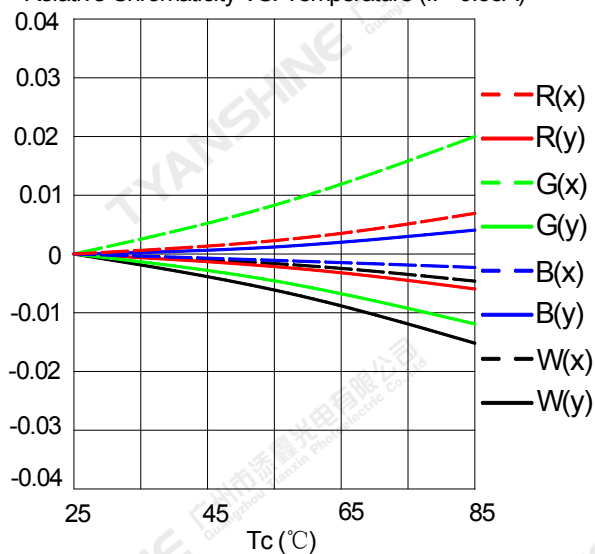


Notes: — Red (R): — Green (G): — Blue (B): — White (W):

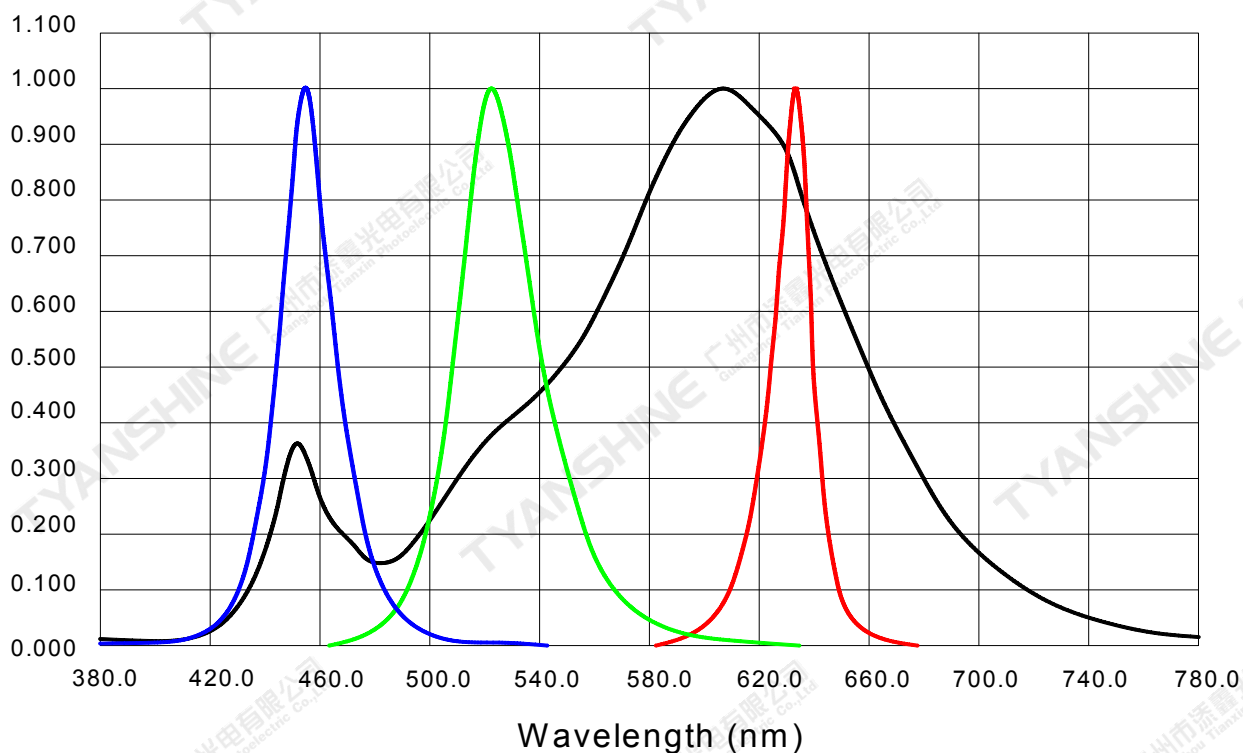
Relative Chromaticity VS. Current



Relative Chromaticity VS. Temperature (IF=0.35A)



Wavelength (nm)



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

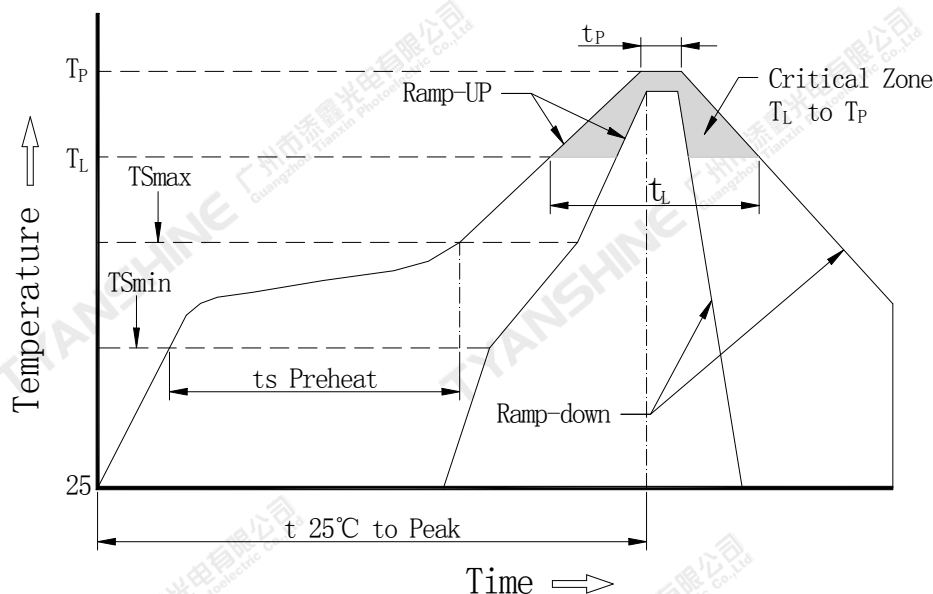
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



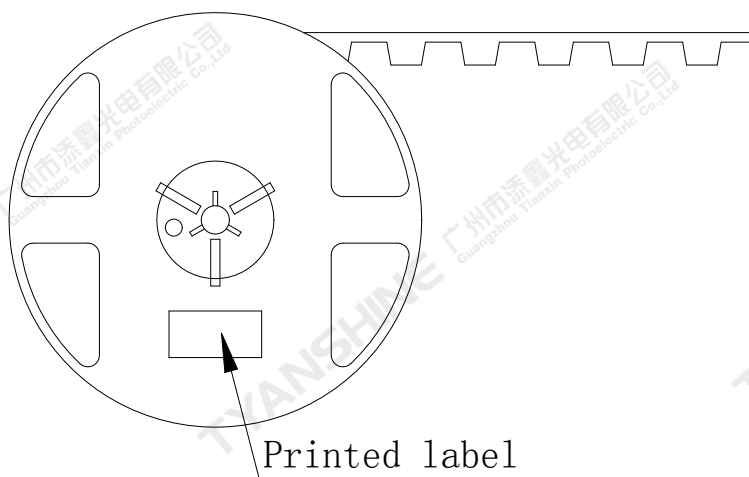
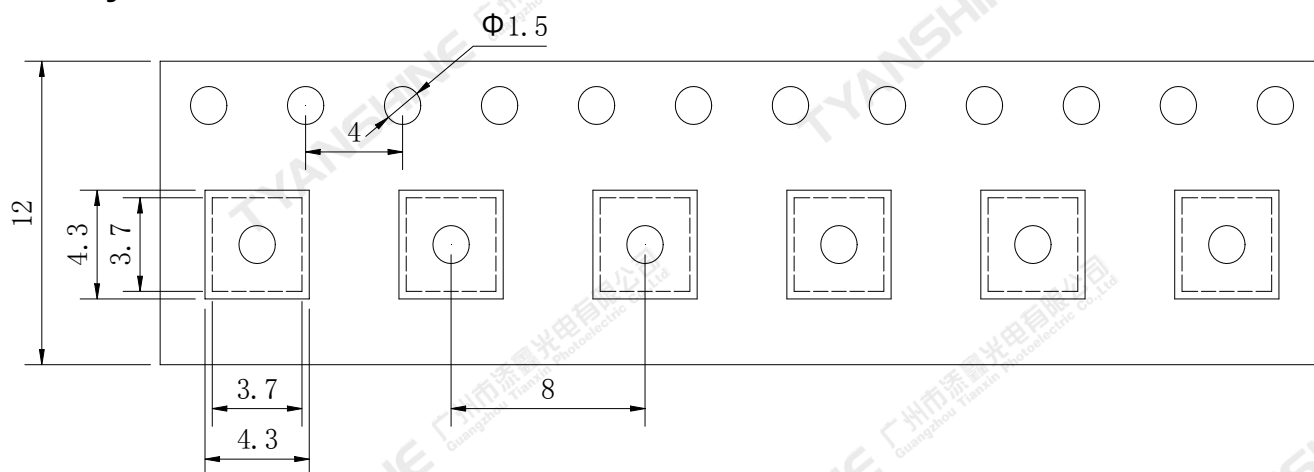
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)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

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