TX-3535RGBS4VSD1-0G4DE-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
◆Warm white: GaInN

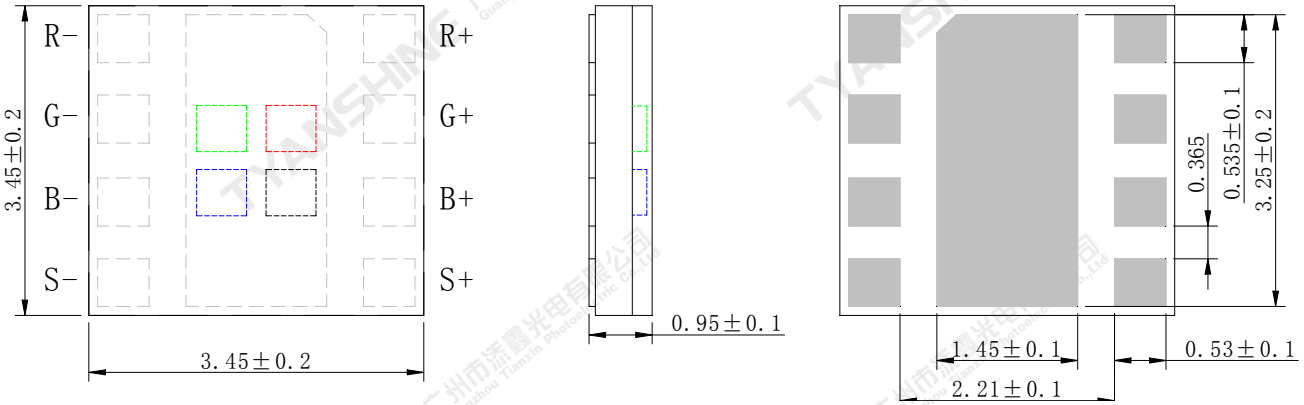
Emitting Color:

◆Red（R）
◆Green（G）
◆Blue（B）
◆Warm white（S）

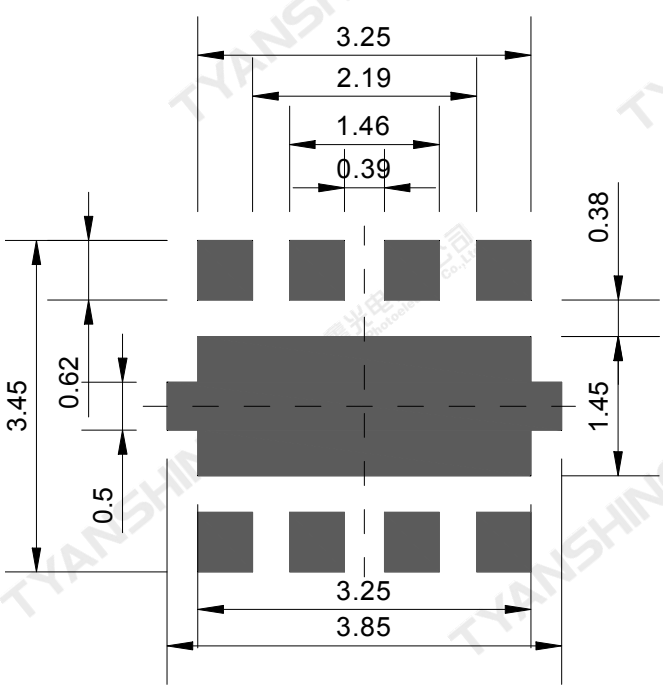
Applications:

◆Portable flashlight
◆Garden lighting
◆General lighting

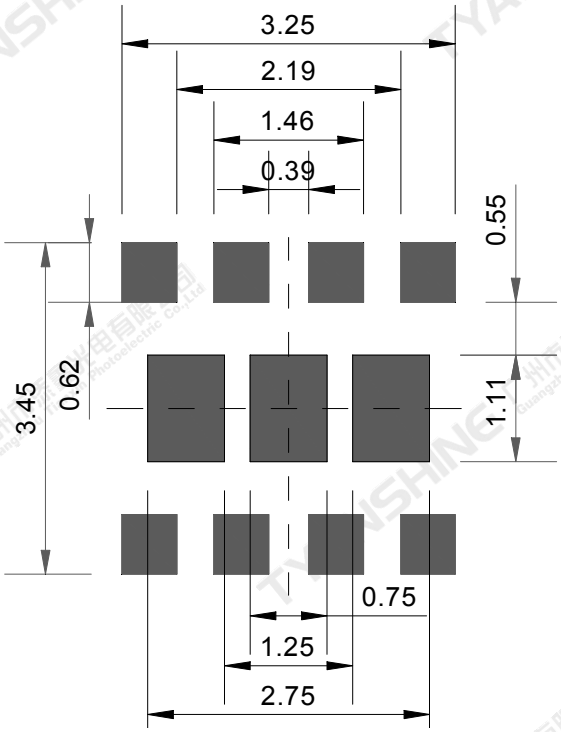
Package Dimensions:



Top view　　Side view　　Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

1.All dimensions are in millimeters .

2.Tolerances unless otherwise mentioned are ±0.1mm .

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	
		S	1260	
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	

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

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=350mA)

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	R	35	40	45	lm
		G	65	70	75	
		B	20	25	30	
		S	55	60	65	
Dominant Wavelength	λd	R	618	623	628	nm
		G	525	530	535	
		B	467	471	475	
Correlated Colour Temperature	CCT	S	2860	3000	3130	K
Color Rendering Index	Ra	S	80	82.5	—	—
Peak-emission Wavelength	λp	R	628	633	638	nm
		G	517	522	527	
		B	463	467	471	
Spectral Line Half-Width	△λ	R	15	17.5	20	nm
		G	30	35	40	
		B	16	19	22	
		S	106	113	120	
Forward Voltage	V_f	R	2.0	2.3	2.6	V
		G	2.7	3.0	3.4	
		B	2.8	3.1	3.5	
		S	2.9	3.2	3.6	
Reverse Current	I_R	R	—	—	5	μA
		G	—	—	5	
		B	—	—	5	
		S	—	—	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	—	
		S	—	14	—	
		Total thermal resistance	—	7.5	—	
Temperature Coefficient of Voltage	V△F/T	R	—	-2.7	—	mV/℃
		G	—	-3.9	—	
		B	—	-1.6	—	
		S	—	-1.6	—	

White light Color coordinate filing (IF=350mA)

Grade	TC	P1		P2		P3		P4	
		X1	Y1	X2	Y2	X3	Y3	X4	Y4
7D3	2860K - 2950K	0.4422	0.3981	0.4358	0.3959	0.4385	0.4014	0.4451	0.4038
7C4		0.4451	0.4038	0.4385	0.4014	0.4425	0.4094	0.4491	0.4116
7C3		0.4491	0.4116	0.4425	0.4094	0.4460	0.4163	0.4527	0.4186
7D2	2950K - 3030K	0.4358	0.3959	0.4300	0.3939	0.4325	0.3991	0.4385	0.4014
7C1		0.4385	0.4014	0.4325	0.3991	0.4363	0.4073	0.4425	0.4094
7C2		0.4425	0.4094	0.4363	0.4073	0.4396	0.4141	0.4460	0.4163
7A3	3030K - 3130K	0.4300	0.3939	0.4242	0.3919	0.4264	0.3969	0.4325	0.3991
7B4		0.4325	0.3991	0.4264	0.3969	0.4302	0.4052	0.4363	0.4073
7B3		0.4363	0.4073	0.4302	0.4052	0.4330	0.4115	0.4392	0.4133

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.

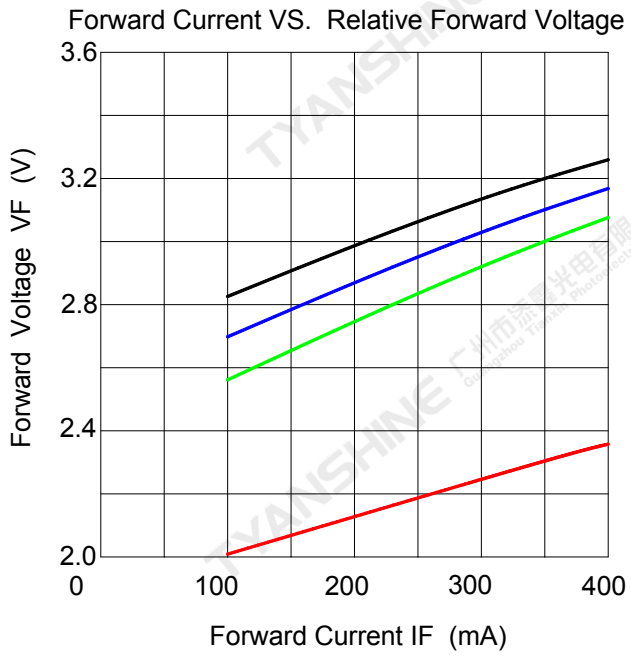
3.The dominant wavelength (λd) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

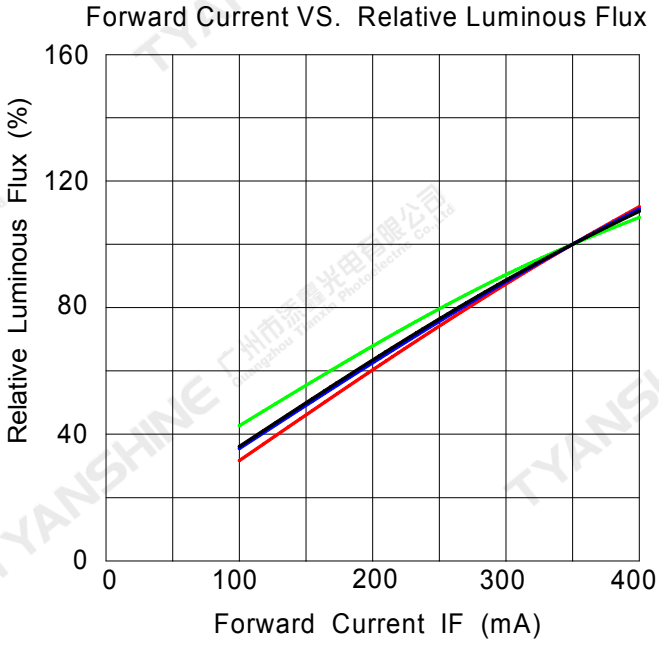
4.Luminous flux measurement tolerance:±15%.

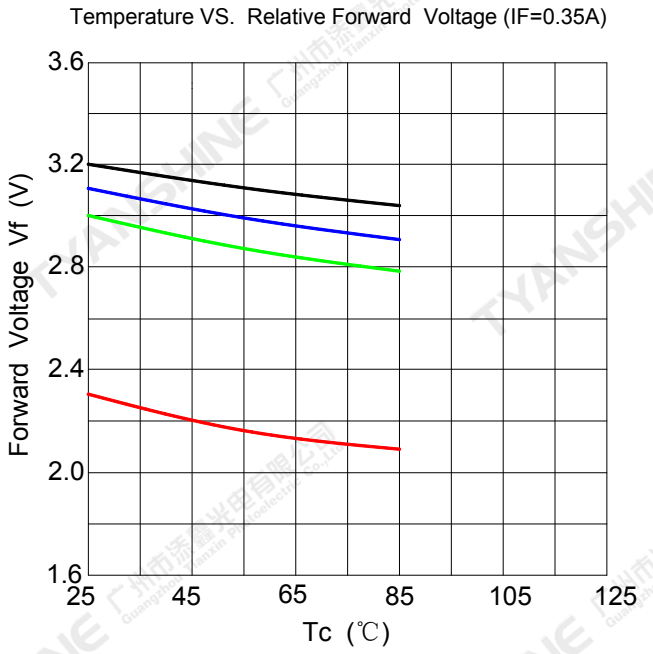
5.Forward voltage measurement tolerance:±0.15V.

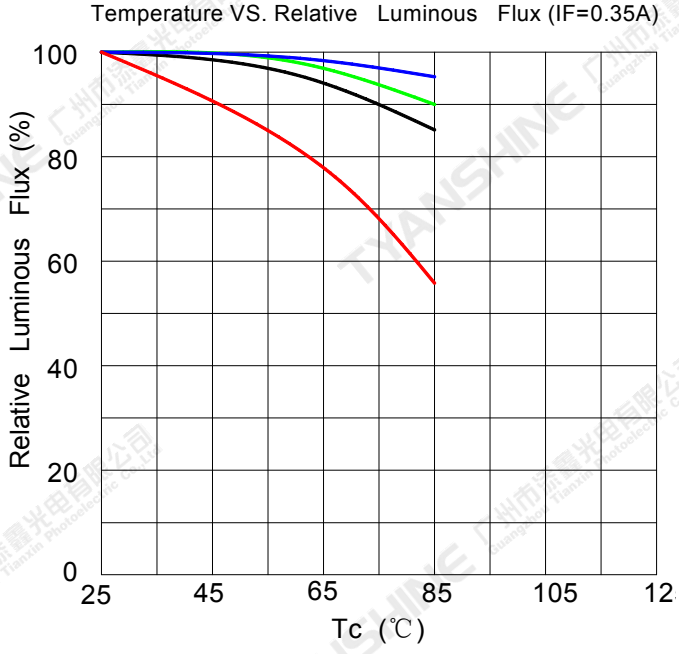
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

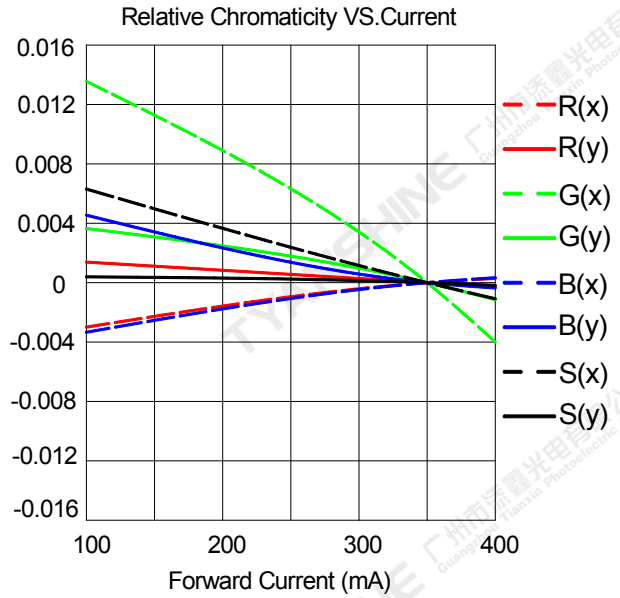


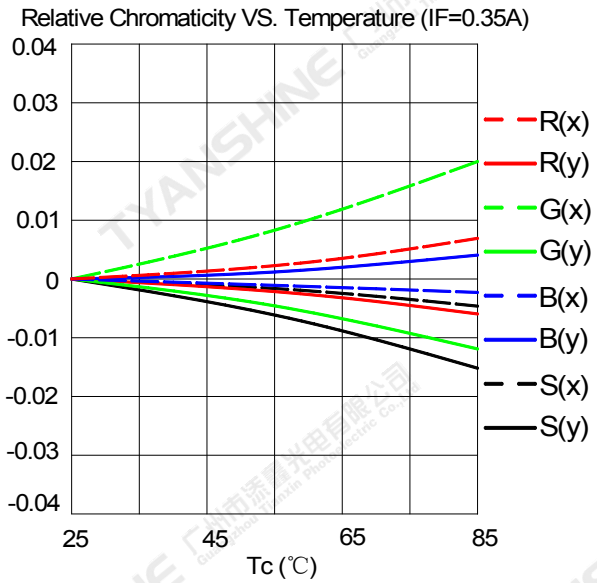




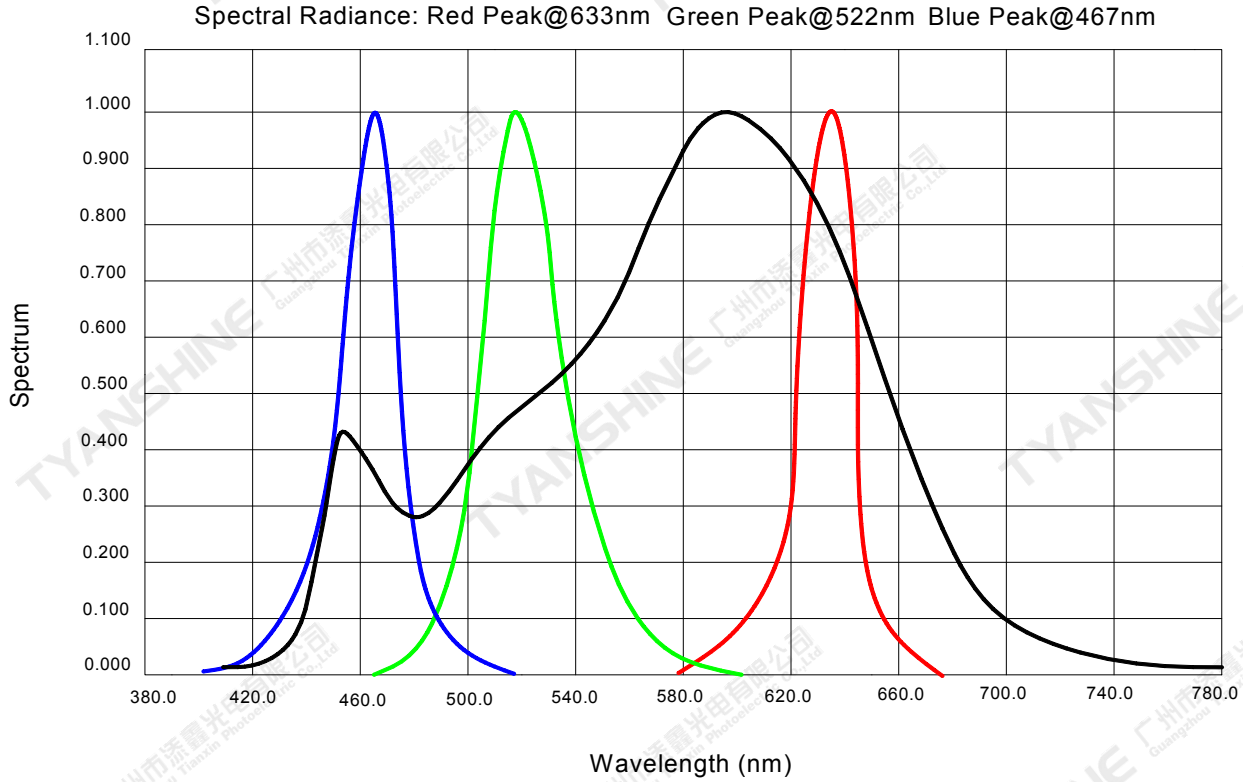


Notes: Red (R); Green (G); Blue (B); Warm white (S);





Relative Spectral Distribution



Notes: Red (R); Green (G); Blue (B); Warm white (S);

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

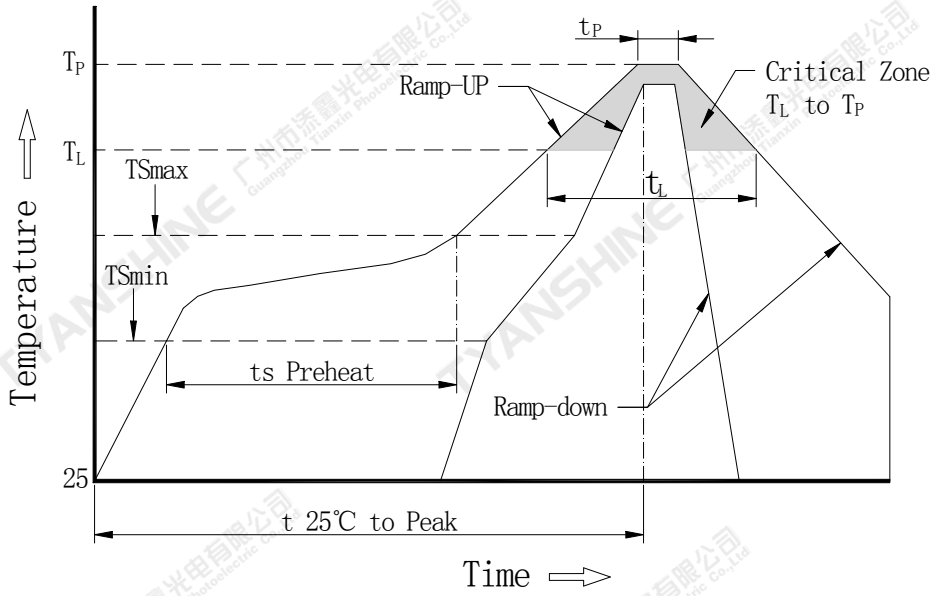
Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



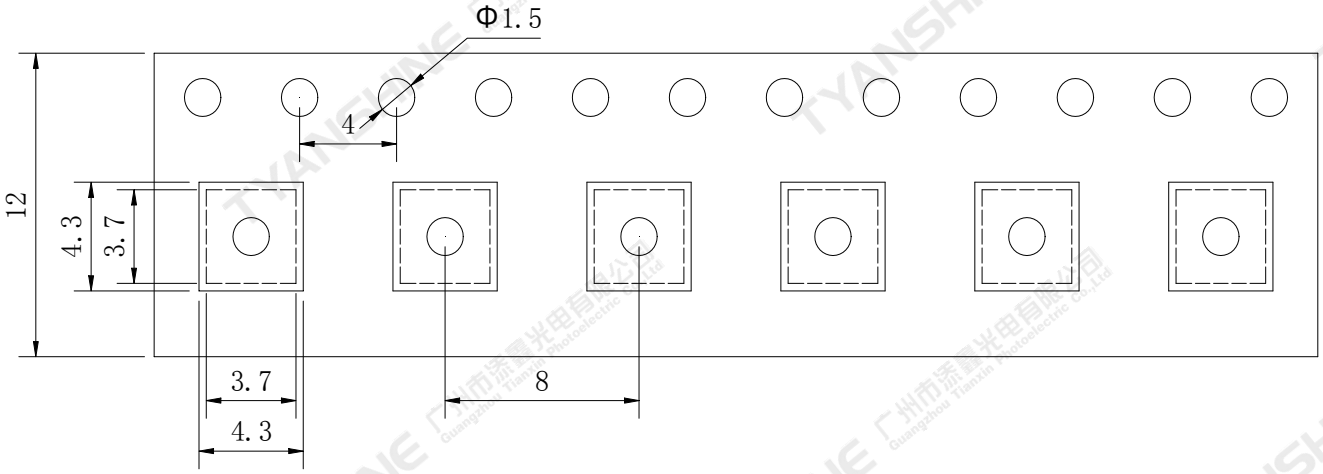
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (Ts_{max} to T_p)	3℃/second max.
Preheat: Temperature Min (Ts_{min})	100℃
Preheat: Temperature Max (Ts_{max})	150℃
Preheat: Time (Ts_{min} to Ts_{max})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183℃
Time Maintained Above: 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.

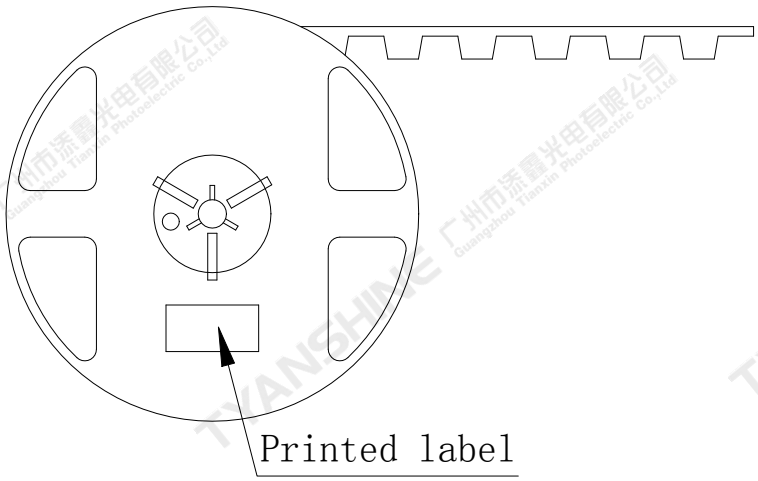
Note:

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

Dimensions For Cannulation And Packaging

Quantity: 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.