

TX-2020A3FSA1-NG4DA-01

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 1000mA.
- ◆High luminous output.
- ◆No UV.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆GaN

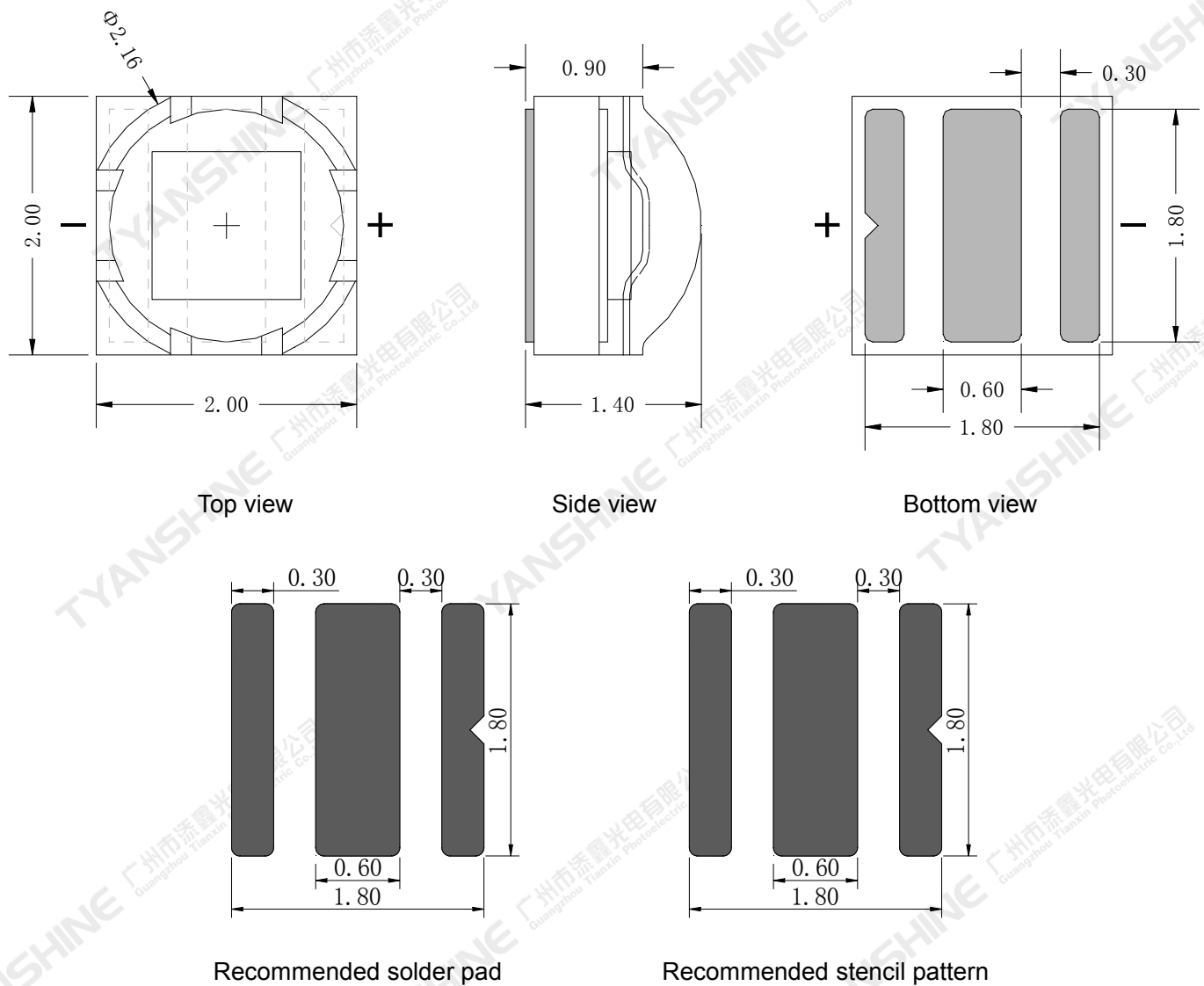
Emitting Color:

- ◆PC Amber(A)

Applications:

- ◆Portable Flashlight
- ◆Garden lighting
- ◆General Lighting

Package Dimensions:



Notes:

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	I _F	1000	mA
Peak Forward Current ^{Note 1}	I _{FP}	1500	
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	3.6	W
Junction Temperature	T _j	150	℃
Electrostatic Discharge Threshold (ESD)	ESD	ESD sensitive device	V
Storage Temperature	T _{stg}	-40~+70	℃
Operation Temperature	T _{opr}	-30~+85	

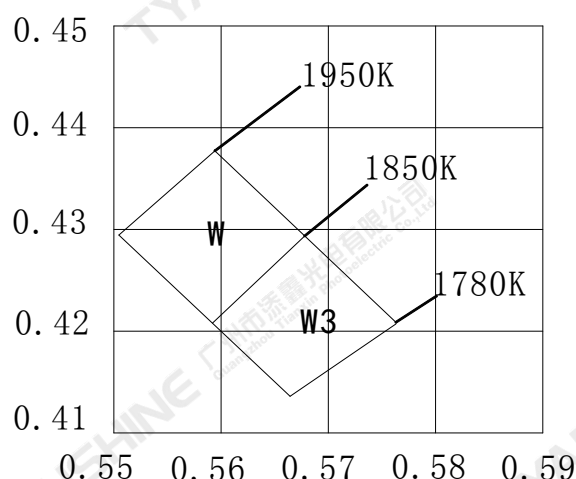
Note: 1.Pulse width ≤0.1 msec, duty ≤1/10.

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=0.35A)

Parameter	Symbol	Min.	Typ.	Max.	Units
Luminous Flux	ϕ_v	110	115	—	lm
Forward Voltage	V_f	2.6	2.9	3.3	V
Correlated Colour Temperature	CCT	1780	1900	1950	K
Spectral Line Half-Width	$\Delta\lambda$	95	105	115	nm
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	135	—	Deg
Reverse Current	I_R	$V_R=5V$	—	1	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	7.0	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	—	-2.8	—	mV/°C

White light Color coordinate filing (IF=0.35A)

Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
W	1850K	1950K	0.5678	0.4294	0.5592	0.4208	0.5505	0.4294	0.5594	0.4377
W3	1780K	1850K	0.5764	0.4208	0.5664	0.4136	0.5592	0.4208	0.5678	0.4294

Notes:

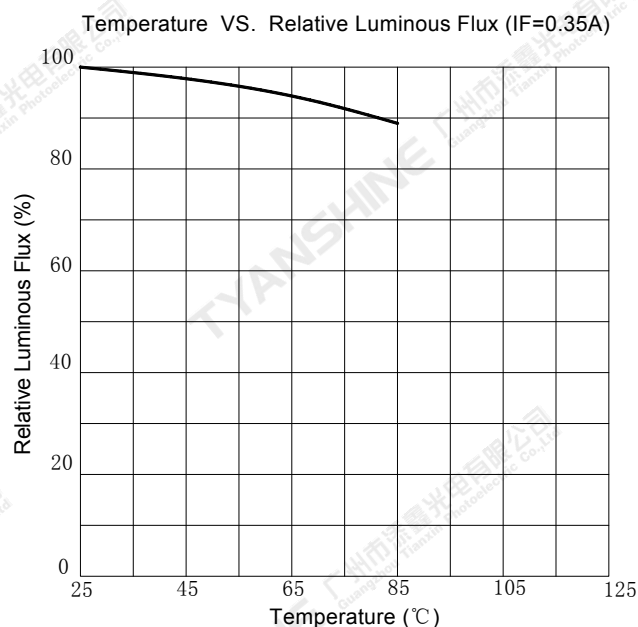
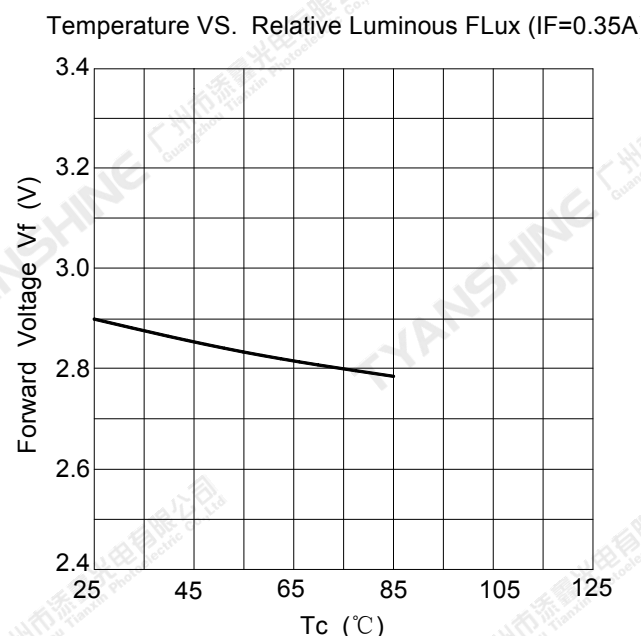
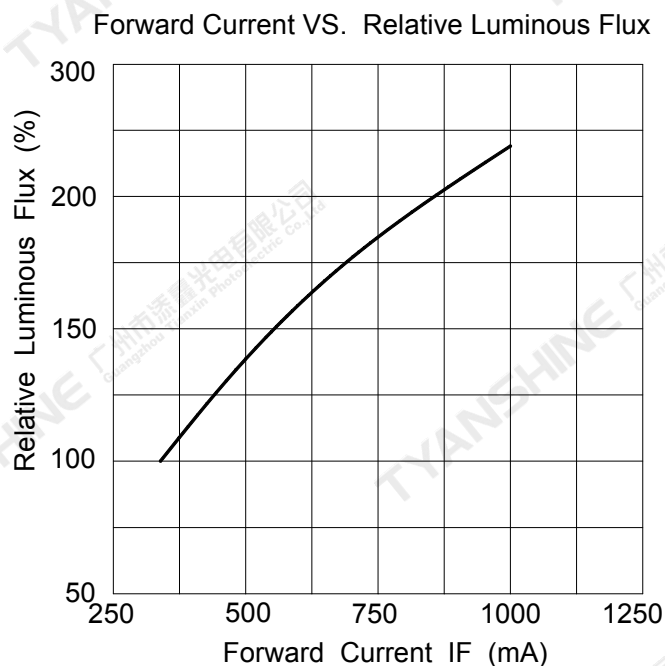
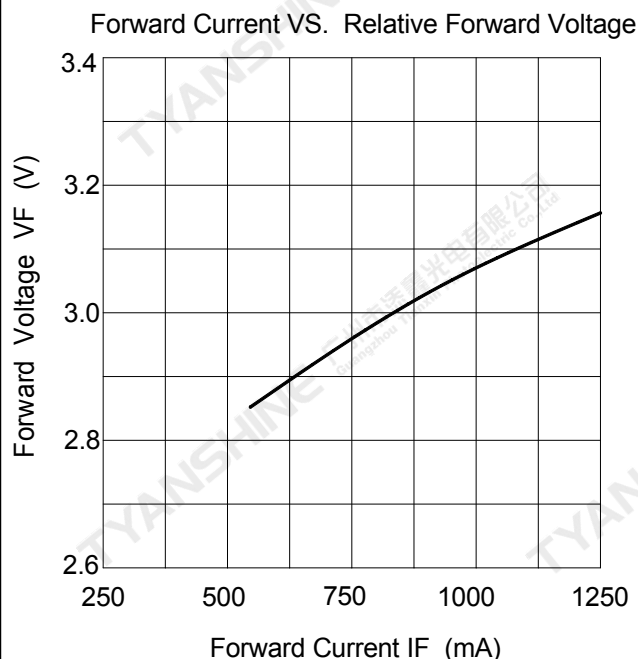
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

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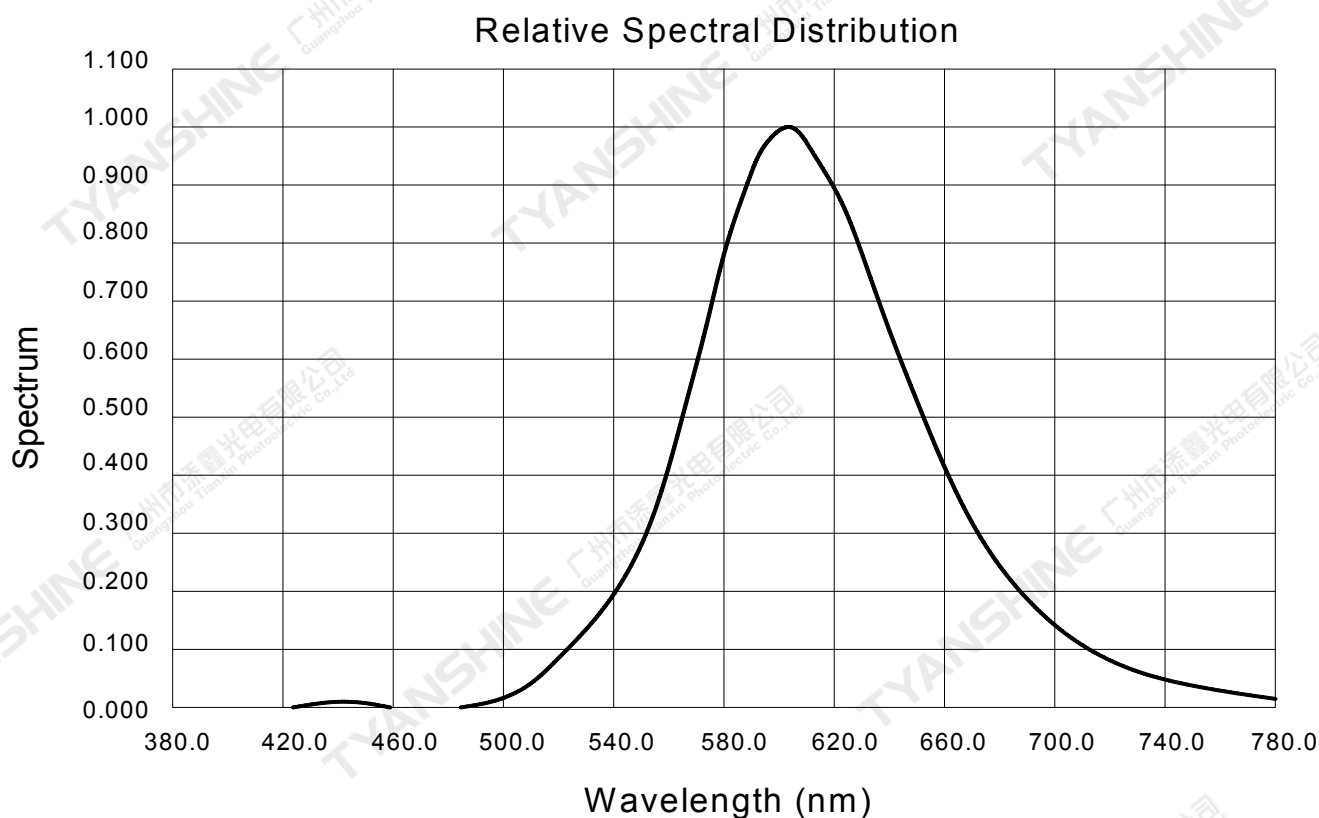
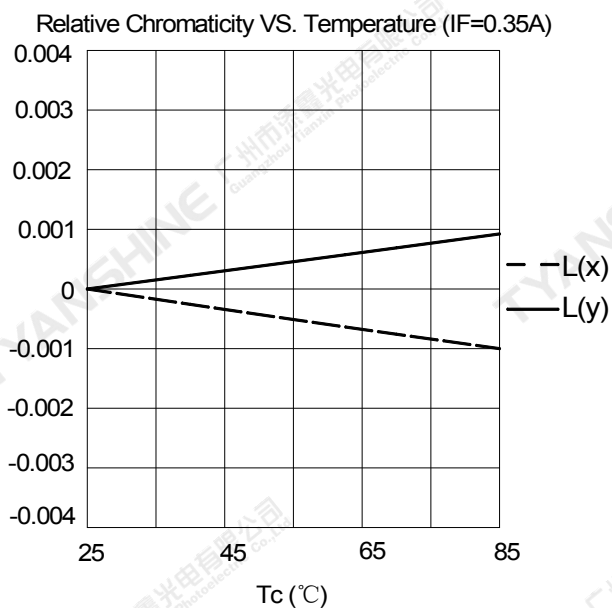
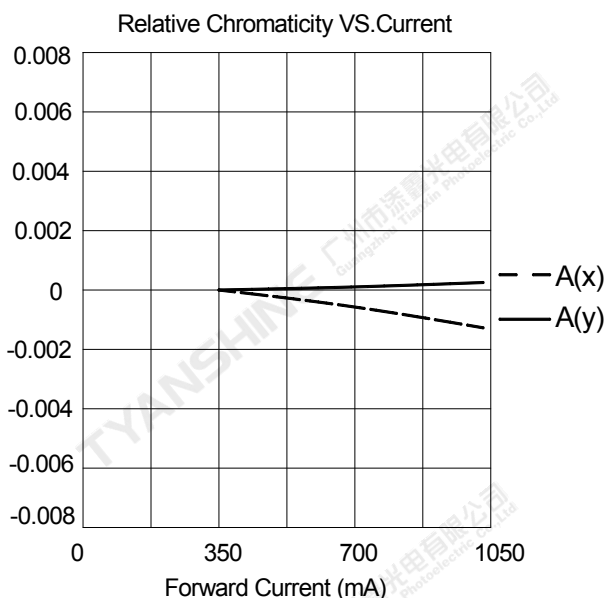
3. Luminous flux measurement tolerance: $\pm 10\%$.
4. Forward voltage measurement tolerance: $\pm 0.3V$.
5. Ra measurement tolerance: ± 2 .

Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



Notes: — PC Amber (A) ;



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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

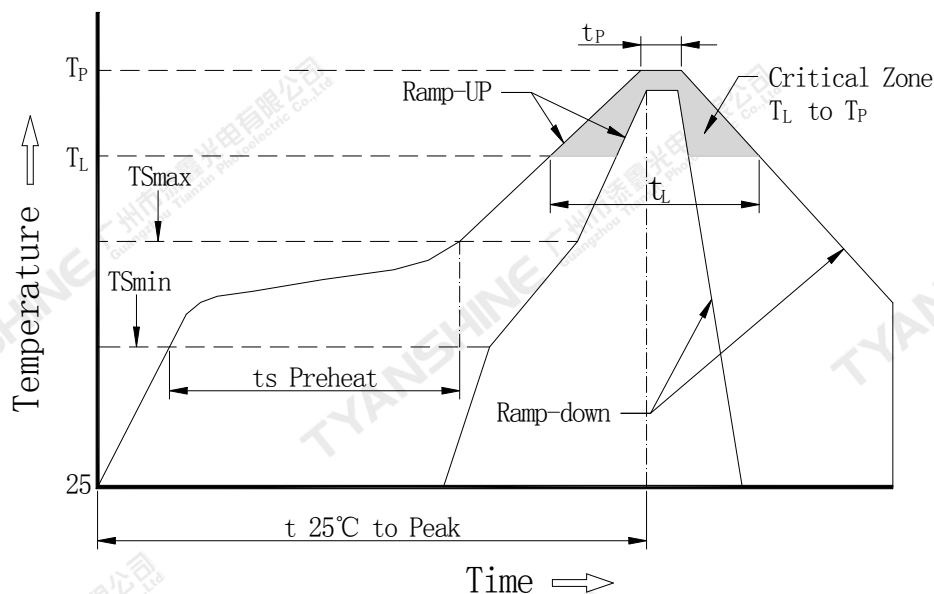
Storage Environment Condition

Temperature: $5^\circ\text{C} \sim 30^\circ\text{C}$ ($41^\circ\text{F} \sim 86^\circ\text{F}$)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



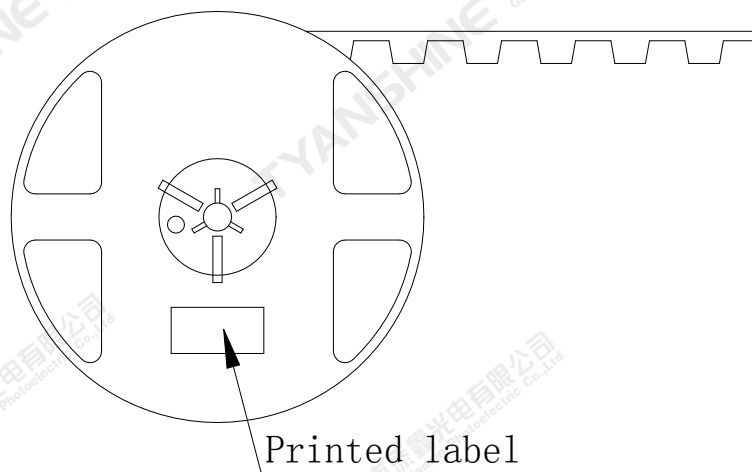
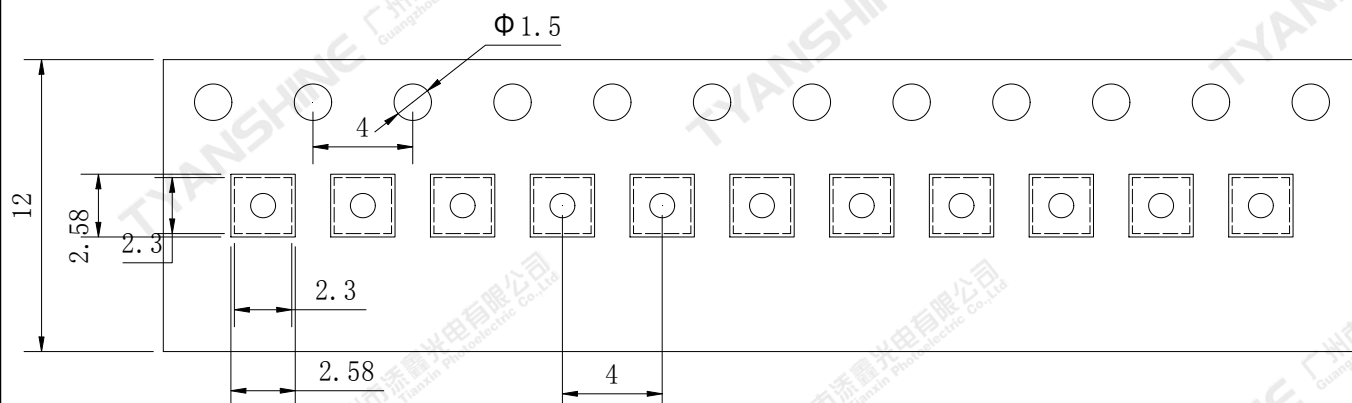
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	$3^\circ\text{C}/\text{second}$ max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained 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	$6^\circ\text{C}/\text{second}$ 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:2000 PCS

**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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