

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

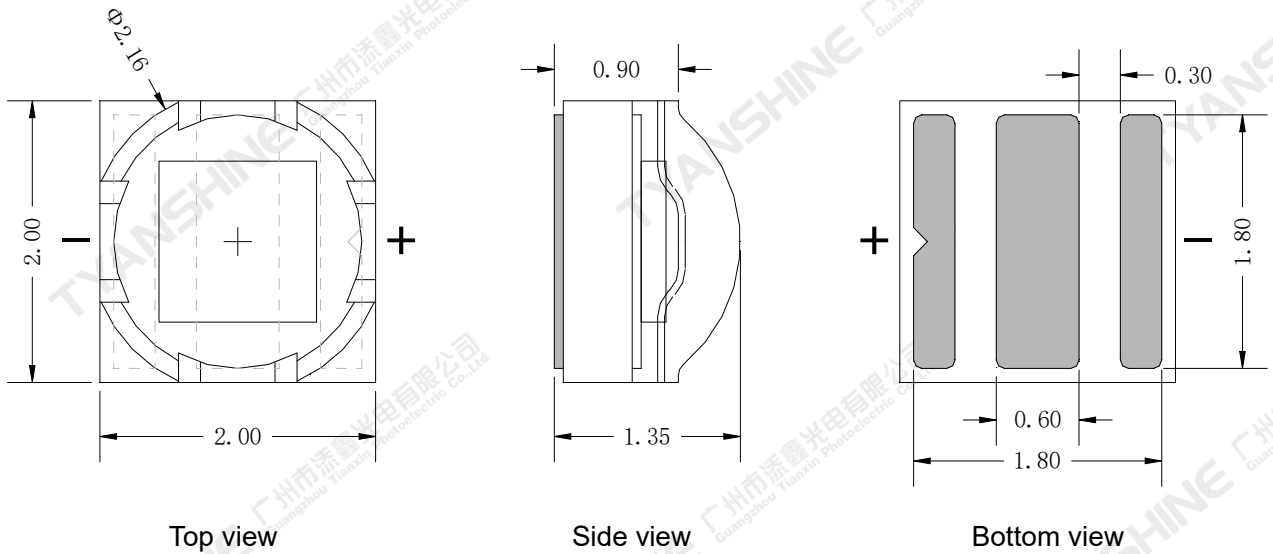
Emitting Color:

- ◆PC Amber(A)

Applications:

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

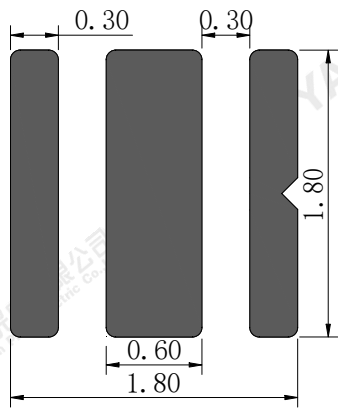
Package Dimensions:



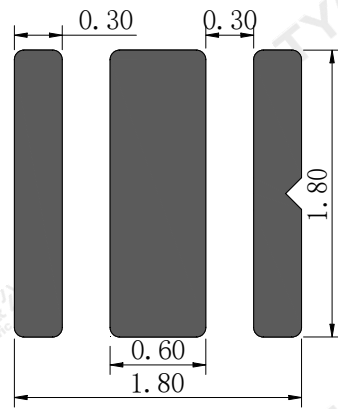
Top view

Side view

Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

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

Absolute Maximum Ratings (Tc=25°C)

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	°C
Electrostatic Discharge Threshold (ESD)	ESD	ESD sensitive device	V
Storage Temperature	T _{stg}	-40~+70	°C
Operation Temperature	T _{opr}	-30~+85	

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

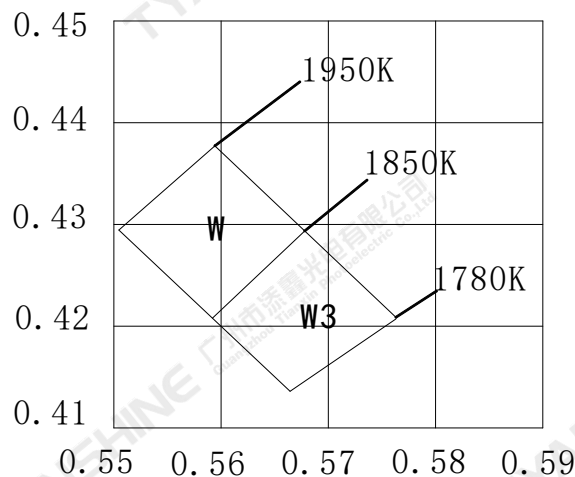
Notes:

- 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.

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

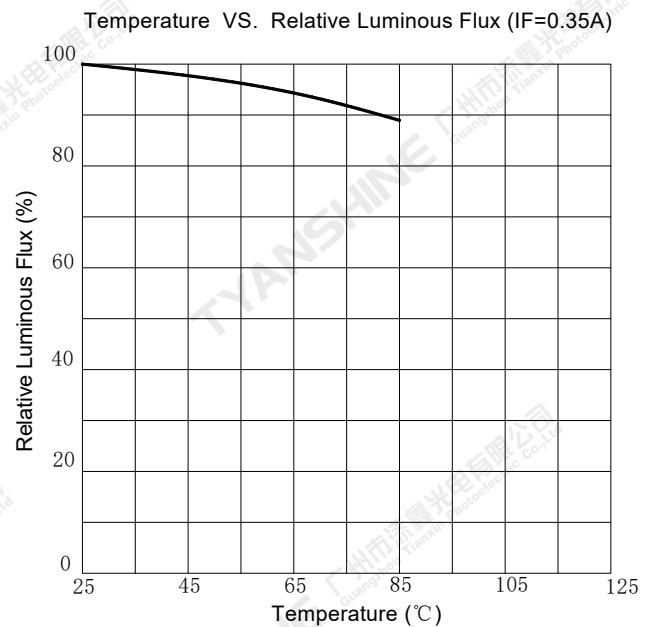
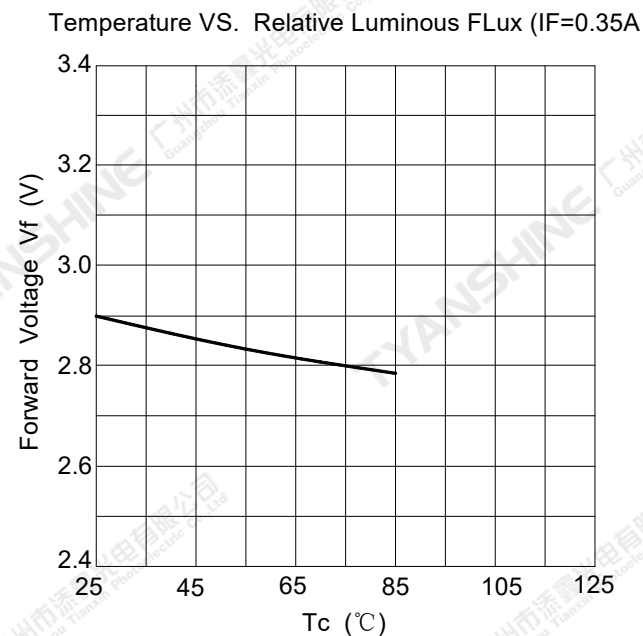
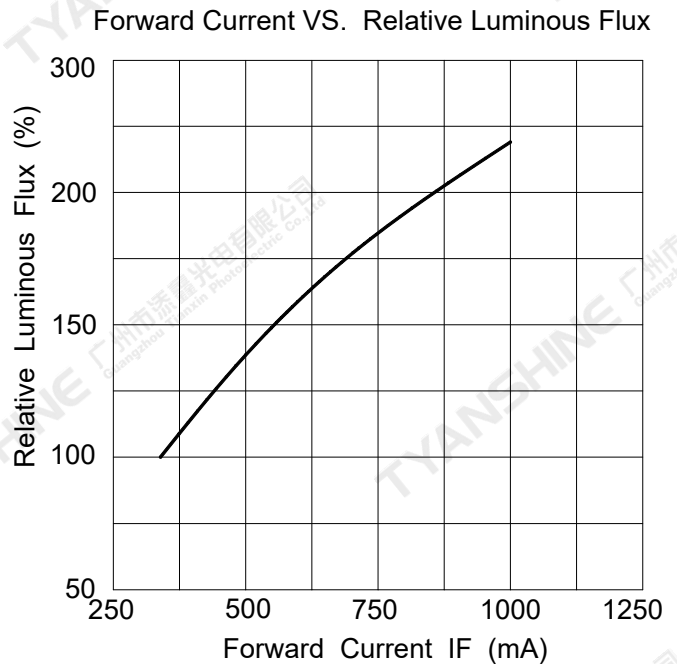
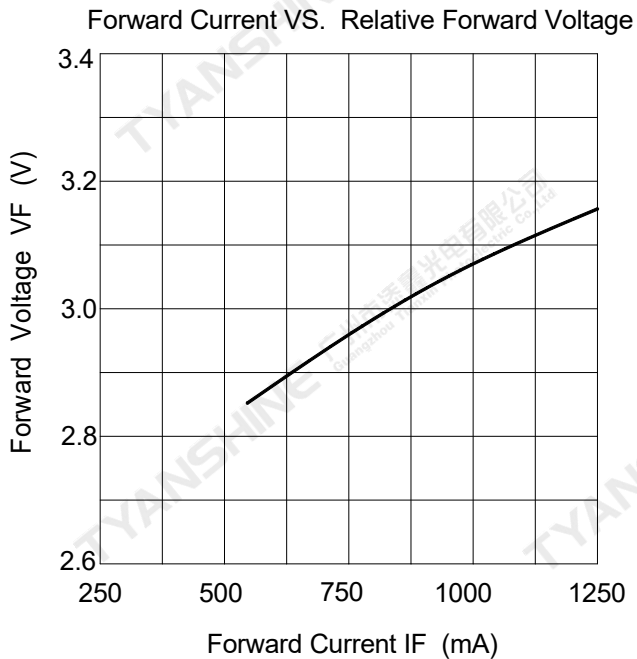
Notes:

- 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.

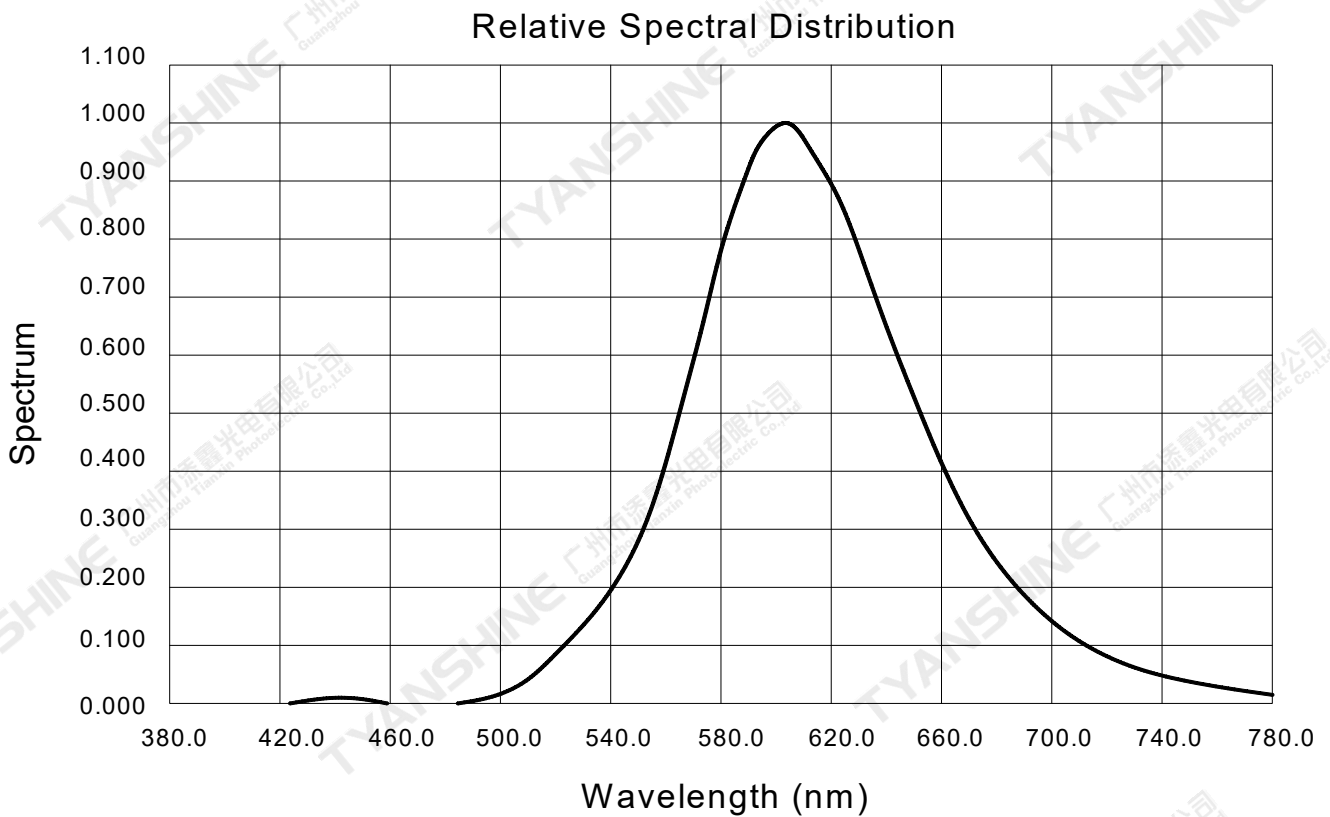
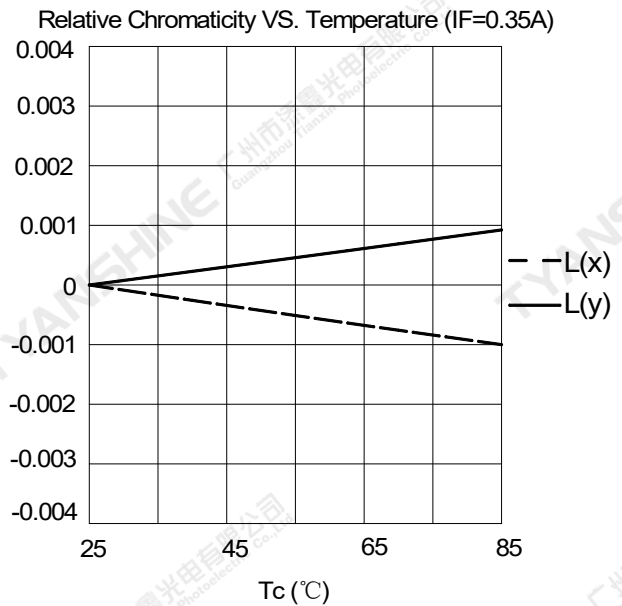
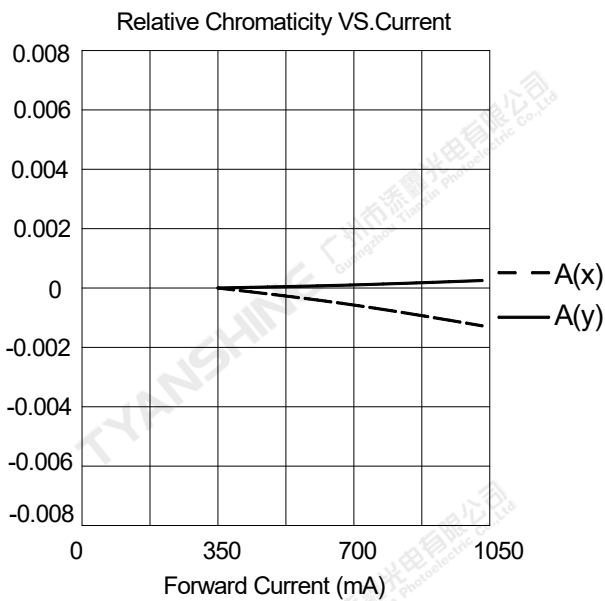
- 3.Luminous flux measurement tolerance:±10%.
- 4.Forward voltage measurement tolerance:±0.3V.
- 5.Ra measurement tolerance:±2.

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

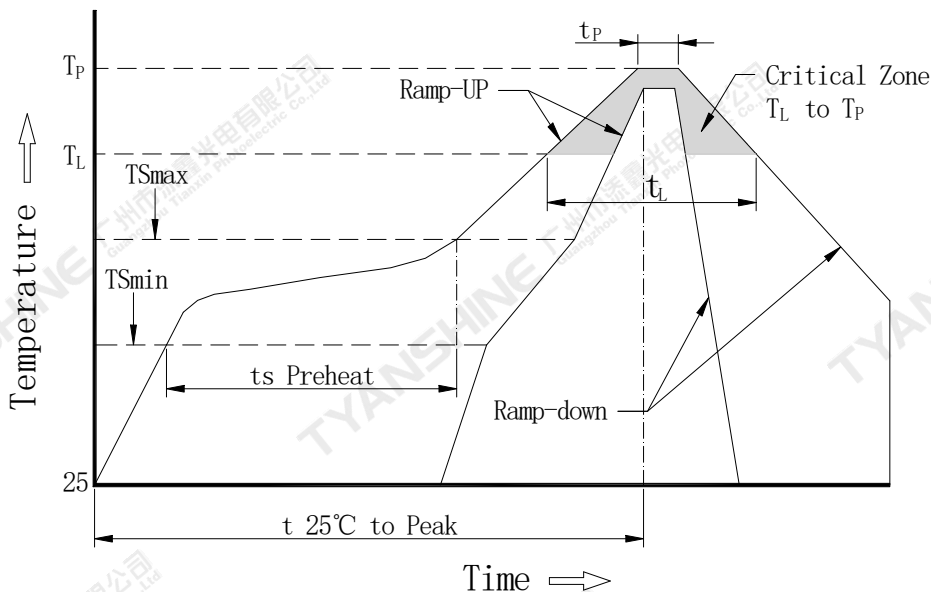
Storage Environment Condition

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.



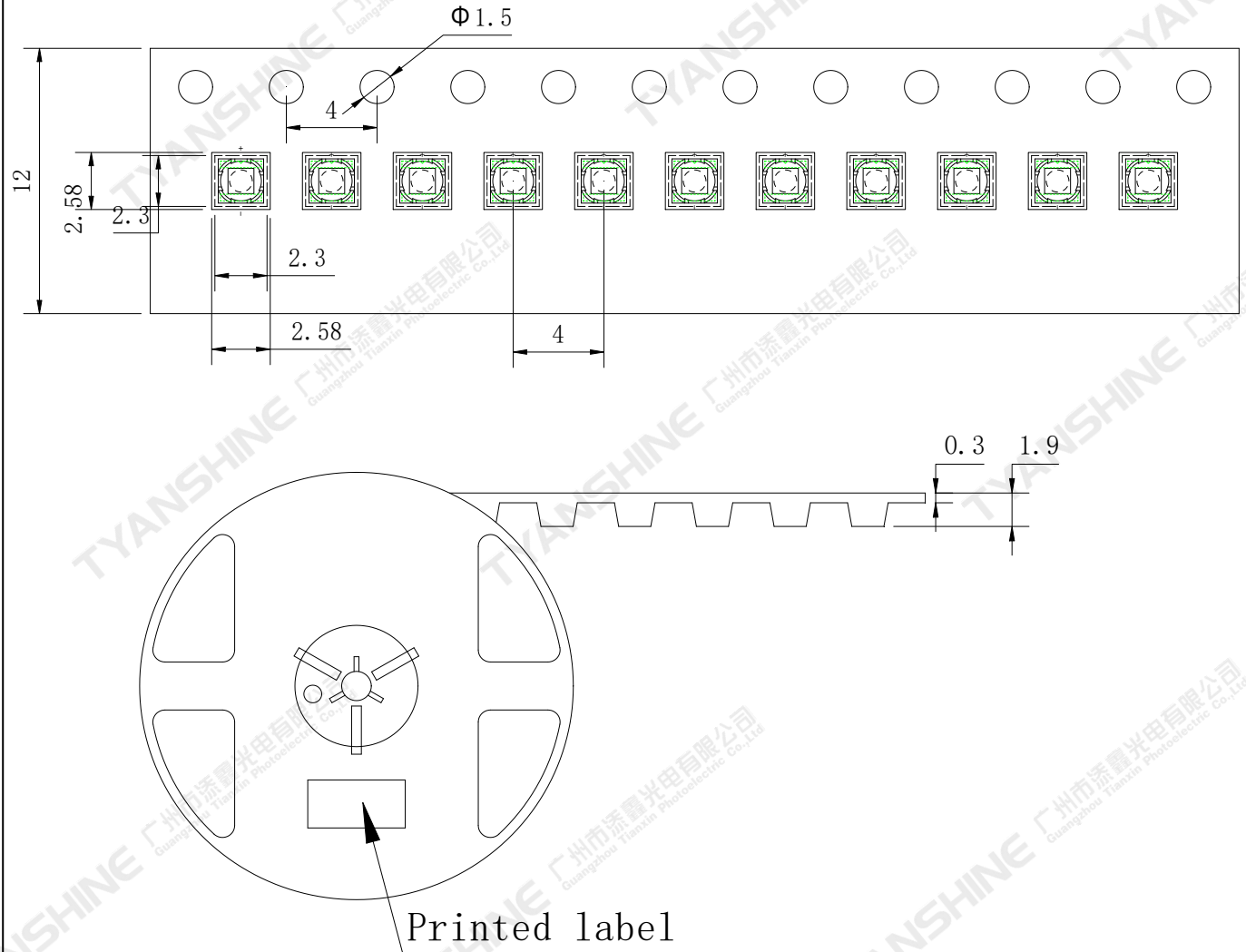
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (Tsmax to Tp)	3°C/second max.
Preheat: Temperature Min (Tsmin)	100°C
Preheat: Temperature Max (Tsmax)	150°C
Preheat: Time (Tsmin to Tsmax)	60-120 seconds
Time Maintained Above: Temperature (Tl)	183°C
Time Maintained Above: Time (tL)	60-150 seconds
Peak/Classification Temperature (Tp)	225°C
Time Within 5°C of Actual Peak Temperature (Tp)	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:3000 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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