

TX-2016Gd5FSA1-NU3CH-01

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 1500mA.
- ◆High luminous output.
- ◆No UV.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

Moisture Proof Grade:

- ◆LEVEL1

Emitting Color:

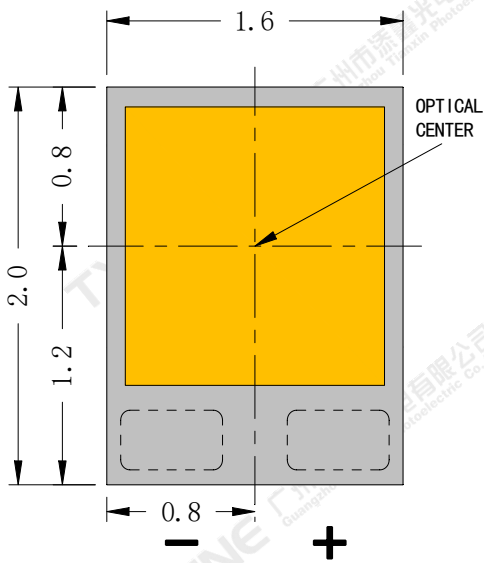
- ◆Golden yellow(Gd)

Applications:

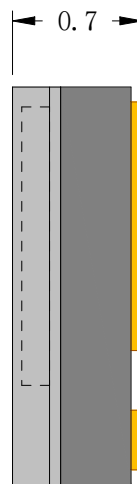
- ◆Portable Flashlight
- ◆Garden lighting
- ◆General Lighting

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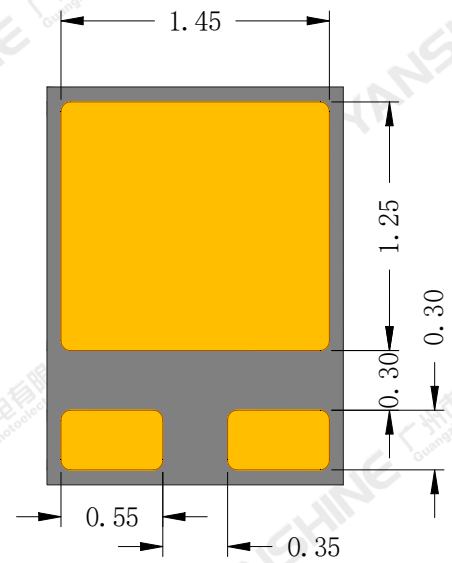
Package Dimensions:



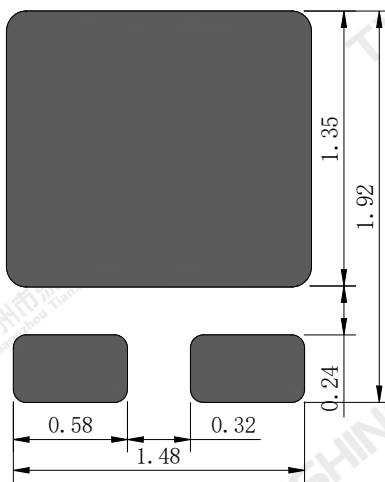
Top view



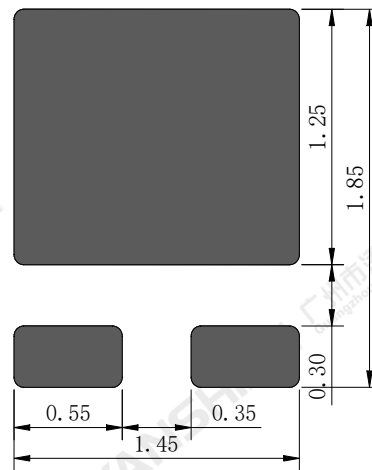
Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are $\pm 0.1\text{mm}$.

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Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	IF	1500	mA
Reverse Voltage	VR	8	V
Power Dissipation	PD	5	W
Junction Temperature	Tj	150	°C
Electrostatic Discharge Threshold (ESD)	ESD	ESD sensitive device	V
Storage Temperature	Tstg	-40~+70	°C
Operation Temperature	Topr	-40~+85	
Ceramic side temperature(note 4)	Tcs	85	

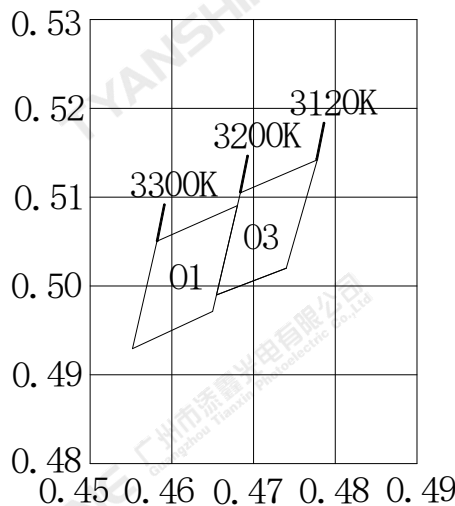
Notes:

- 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

Electrical Optical Characteristics (Tc=25°C, IF=1A)

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	ϕ_v	Gd	390	420	450	lm
Forward Voltage	V_f		2.7	3.0	3.3	V
Correlated Colour Temperature	CCT		3120	3200	3300	K
Spectral Line Half-Width	$\Delta\lambda$		115	120	125	nm
Viewing Angle at 50% IV	$2\theta_{1/2}$		—	120	—	Deg
Reverse Current	I_R	$V_R=8V$	—	—	1	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	6.4	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	—	—	-2.8	—	mV/°C

White light Color coordinate filing (IF=1A)



Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
O3	3120K	3200K	0.4655	0.4990	0.4684	0.5105	0.4778	0.5142	0.4740	0.5020
O1	3200K	3300K	0.4552	0.4929	0.4582	0.5050	0.4680	0.5090	0.4650	0.4971

Notes:

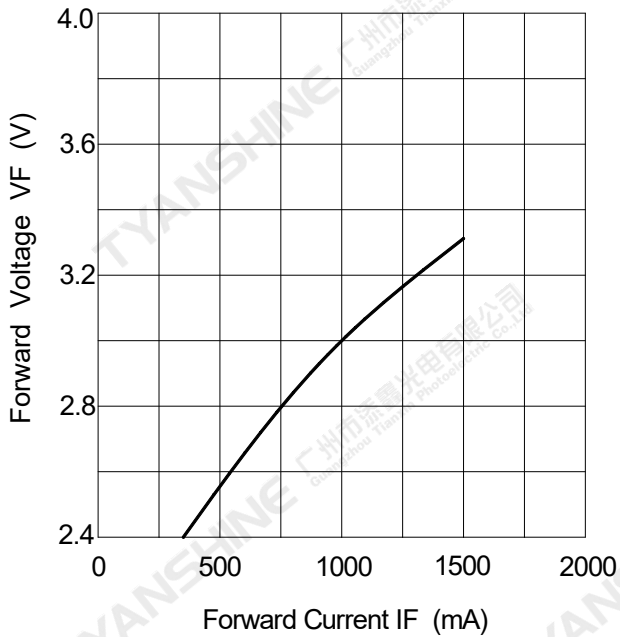
- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- Luminous flux measurement tolerance: $\pm 10\%$.
- Forward voltage measurement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

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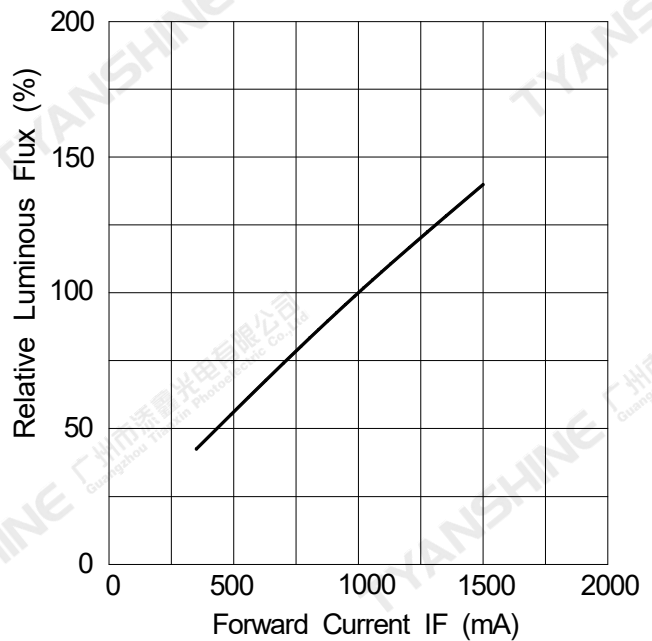
Typical Electrical/Optical Characteristics Curves(IF=1A)

(25°C Ambient Temperature Unless Otherwise Noted)

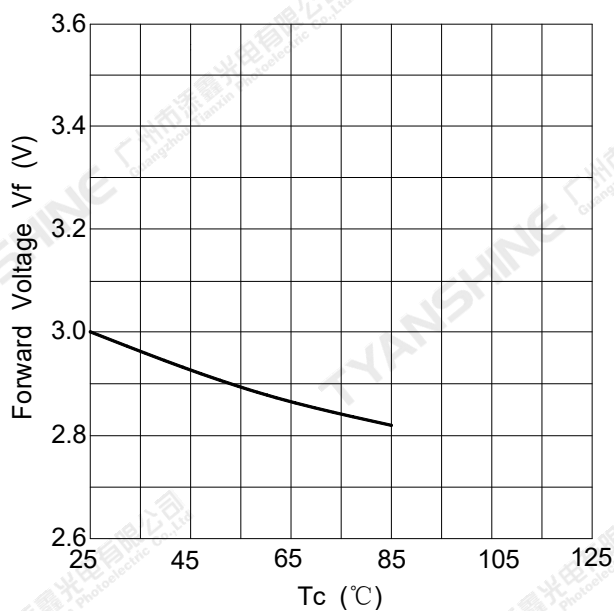
Forward Current VS. Relative Forward Voltage



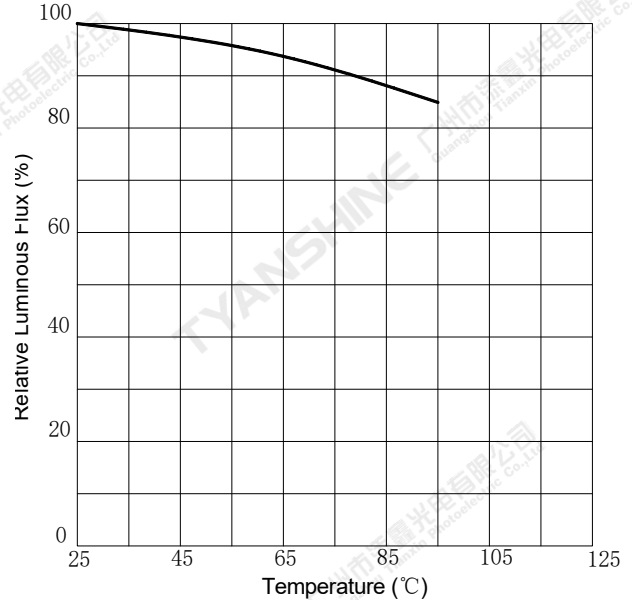
Forward Current VS. Relative Luminous Flux



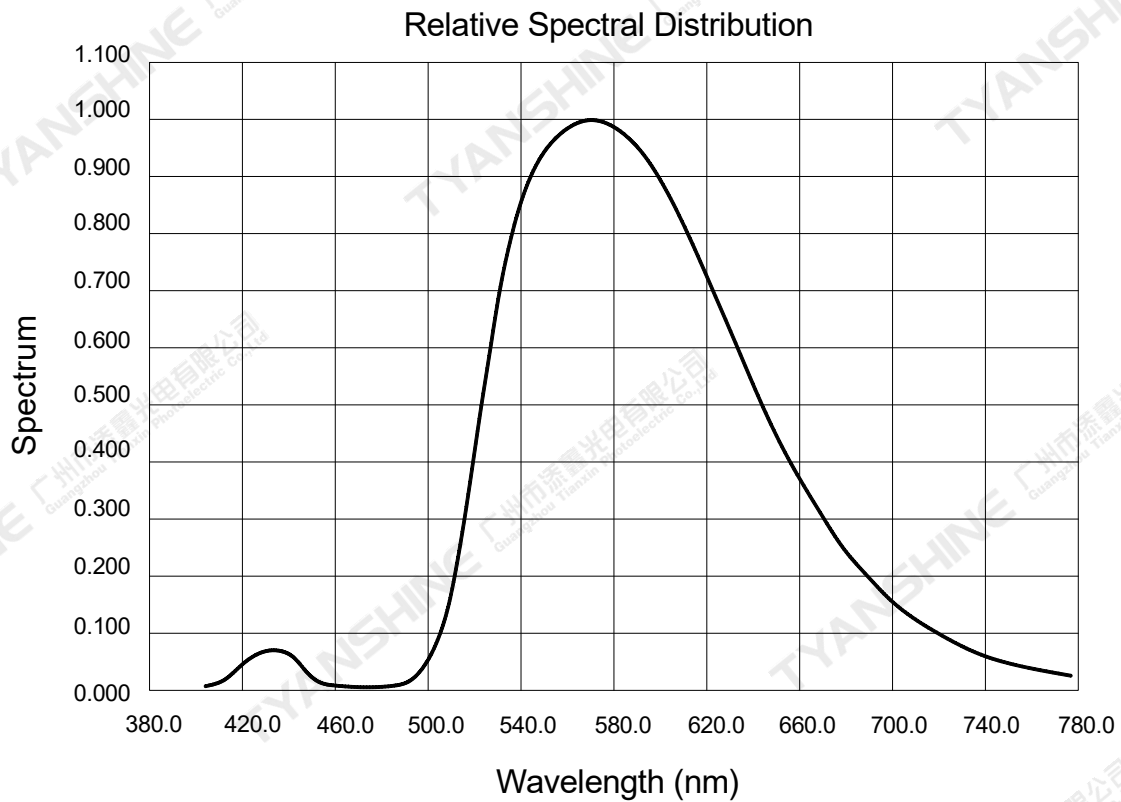
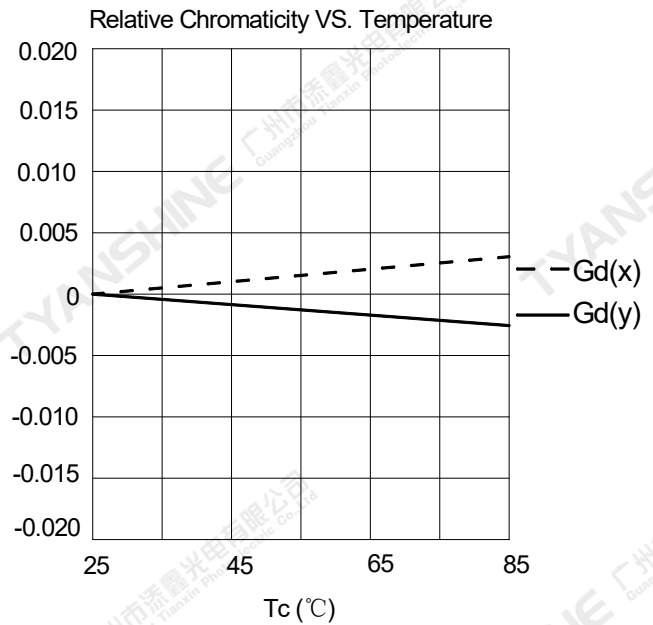
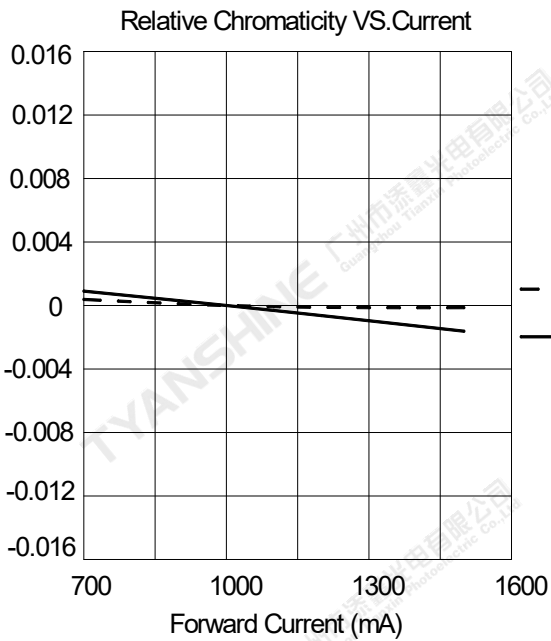
Temperature VS. Relative Forward Voltage



Temperature VS. Relative Luminous Flux



Notes: Golden yellow (Gd) ;



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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

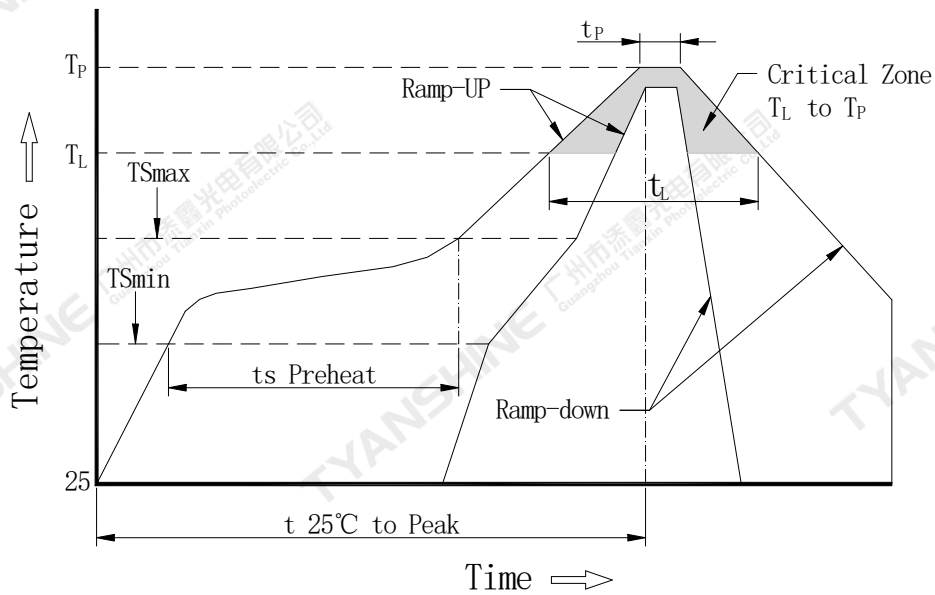
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



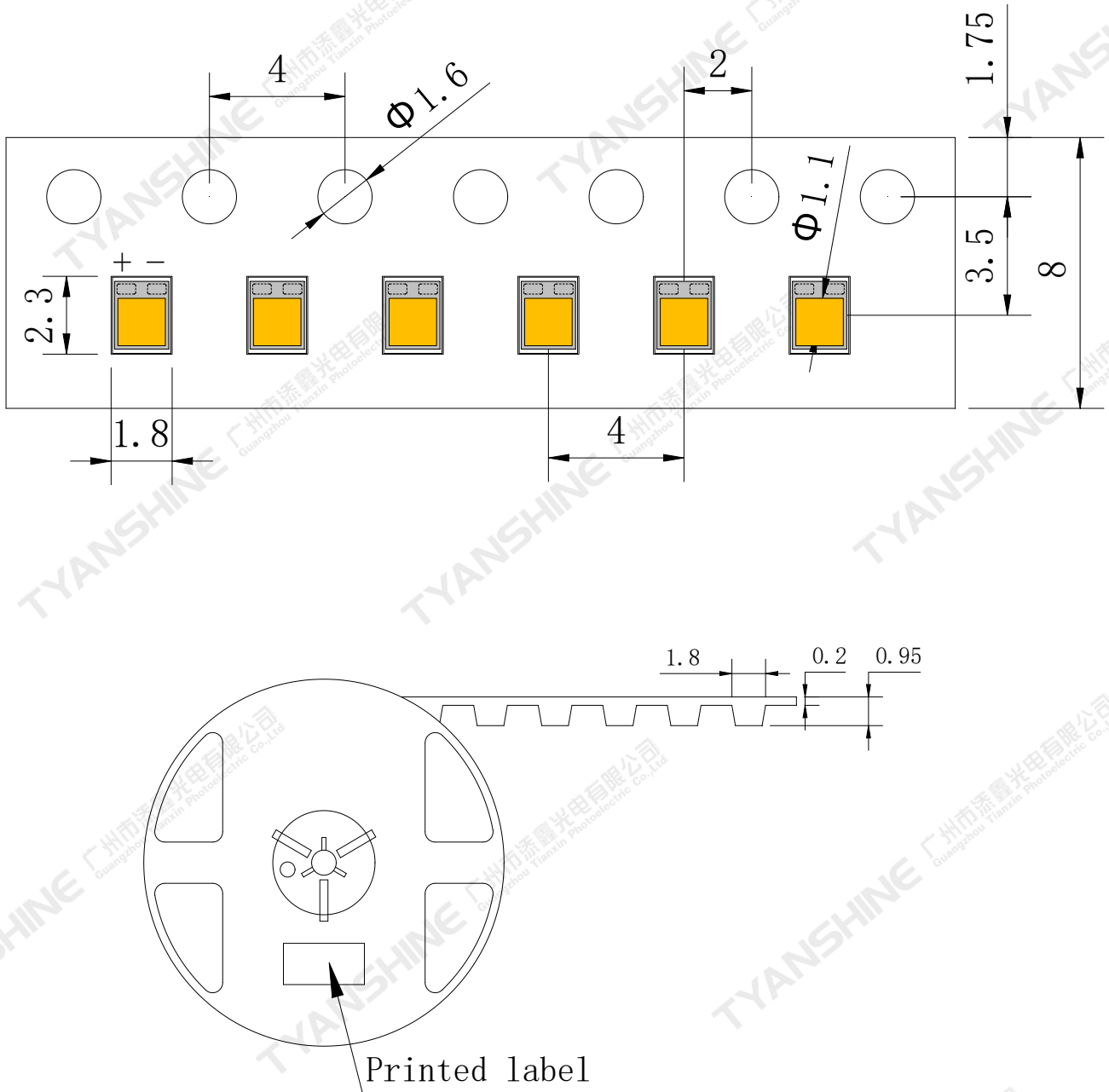
Profile Feature	Pb-Free Solder(SnBi35Ag0.3)
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	130°C
Preheat: Temperature Max (T_{Smax})	190°C
Preheat: Time (T_{Smin} to T_{Smax})	120-180 seconds
Time Maintained Above: Temperature (T_L)	230°C
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	255°C
Time Within 5°C of Actual Peak Temperature (T_P)	10-35seconds
Ramp-Down Rate	5°C/second max.
Time 25°C to Peak Temperature	7 minutes max.

Note:

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

Dimensions For Cannulation And Packaging

Quantity: 3000PCS



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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