

TX-4045W15VCA1-NP3CD-02

PRODUCT SPECIFICATION

Features:

- ◆ Excellent transiting heat from LED chip operating under 5A.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ ThinGaN

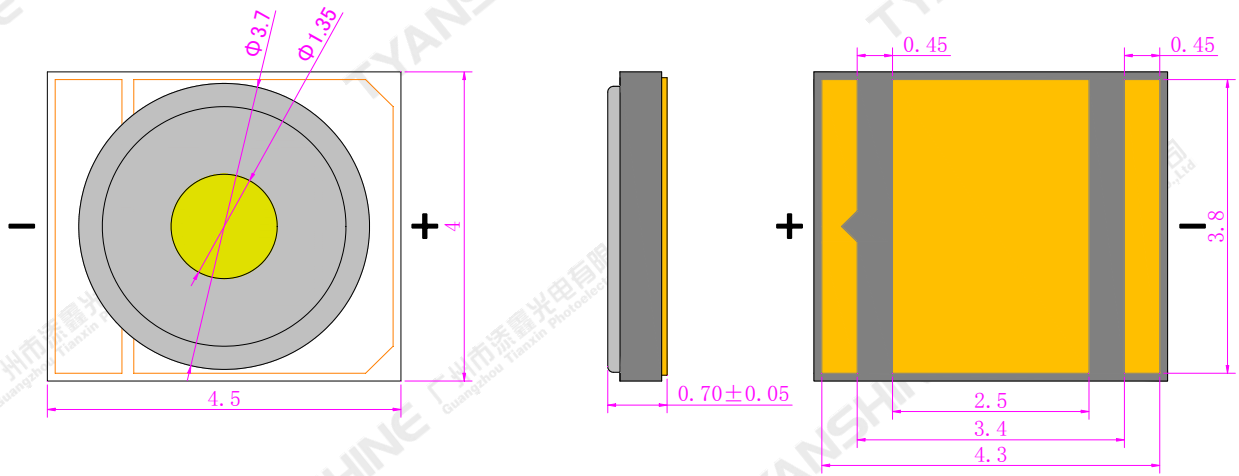
Emitting Color:

- ◆ White (W)

Applications:

- ◆ Auxiliary lighting
- ◆ Ambient lighting
- ◆ Architectural lighting

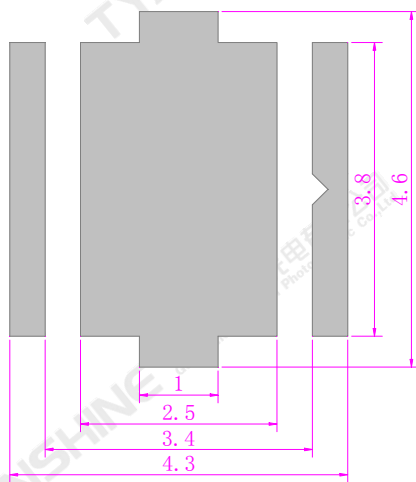
Package Dimensions:



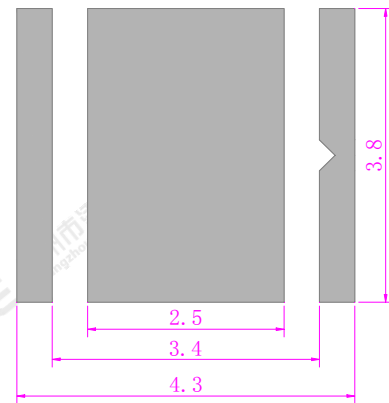
Top view

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	IF	5	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	13	W
Junction Temperature	Tj	150	°C
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Storage Temperature	Tstg	-40~+70	°C
Operation Temperature	Topr	-30~+85	

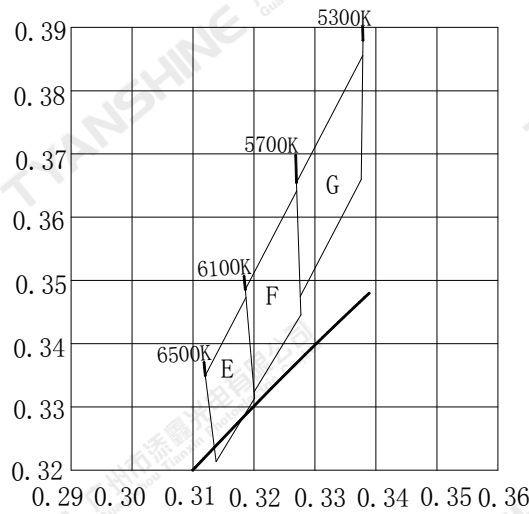
Notes:

- 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.

Electrical Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Luminous Flux	Φ_v	If=0.5A	185	210	—	lm
		If=4.5A	950	1050	—	
Forward Voltage	V_f	If=0.5A	2.6	3.0	3.5	V
		If=4.5A	3.6	4.1	4.6	
Correlated Colour Temperature	CCT	If=0.5A	5300	5700	6500	K
		If=4.5A	6300	6750	7700	
Spectral Line Half-Width	$\Delta\lambda$	If=4.5A	22	26	30	nm
Viewing Angle at 50% IV	$2\theta_{1/2}$	—	—	120	—	Deg
Reverse Current	I_R	$V_R=-5V$	—	—	2	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	2.7	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	If=4.5A	—	-3.3	—	mV/°C

White light Color coordinate filing (IF=0.5A)



Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
G	5300K	5700K	0.3276	0.3475	0.3270	0.3655	0.3379	0.3856	0.3376	0.3659
F	5700K	6100K	0.3277	0.3445	0.327	0.3642	0.3186	0.3486	0.32	0.3324
E	6100K	6500K	0.3201	0.3314	0.3187	0.3473	0.312	0.335	0.3138	0.3213

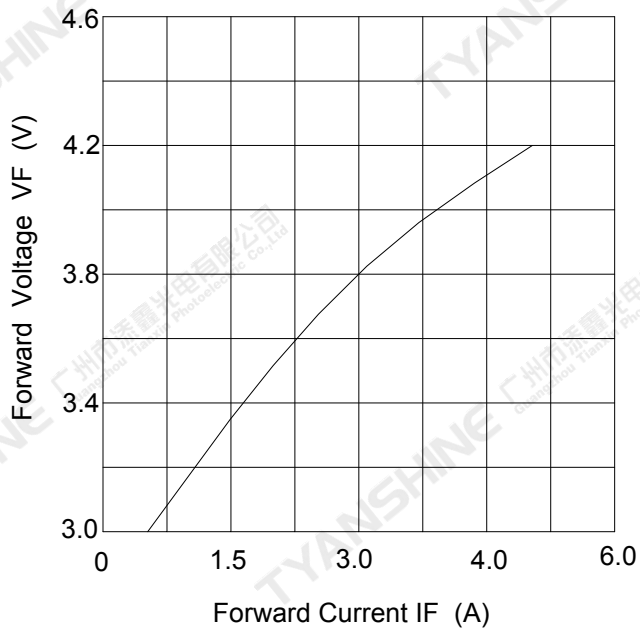
Notes:

- 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.Luminous flux measurement tolerance: $\pm 15\%$.
- 4.Forward voltage measurement tolerance: $\pm 0.15V$.

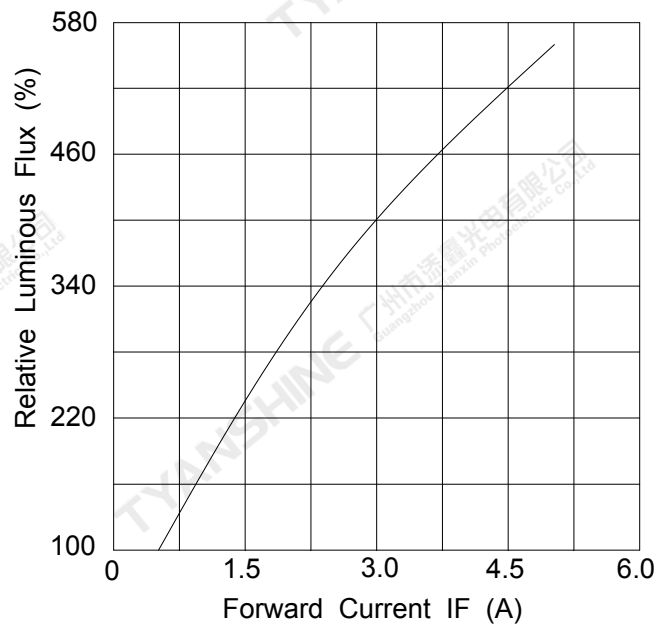
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

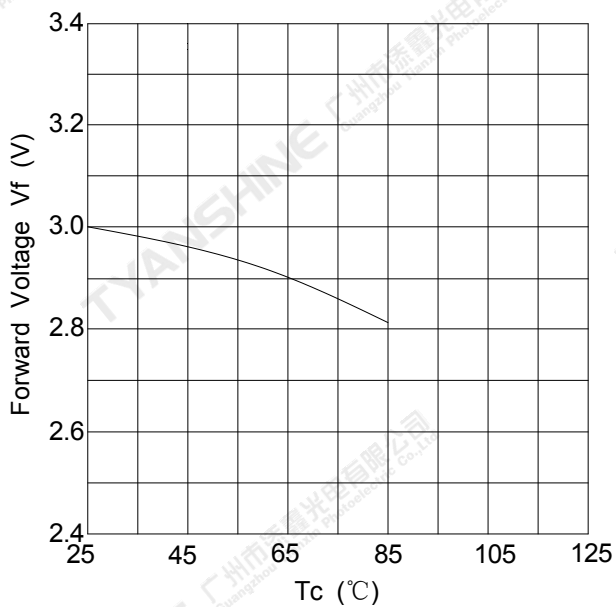
Forward Current VS. Relative Forward Voltage



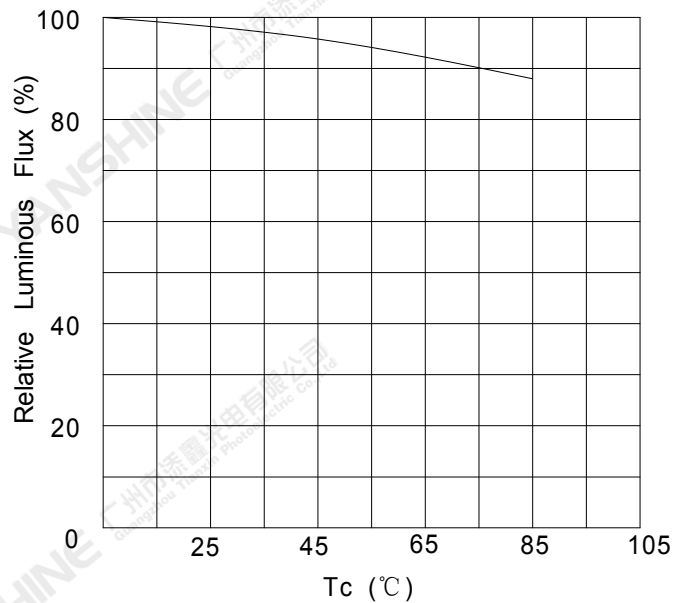
Forward Current VS. Relative Luminous Flux

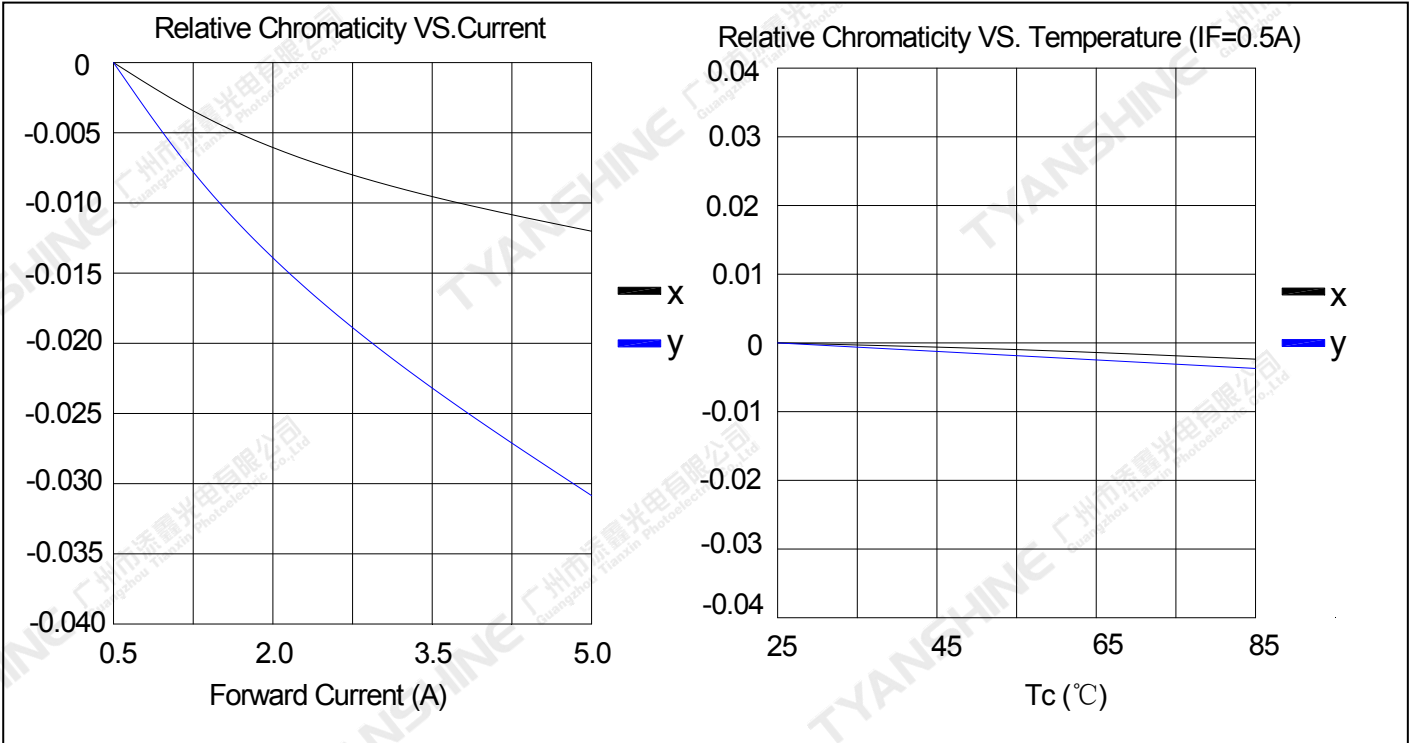


Temperature VS. Relative Forward Voltage (IF=0.5A)

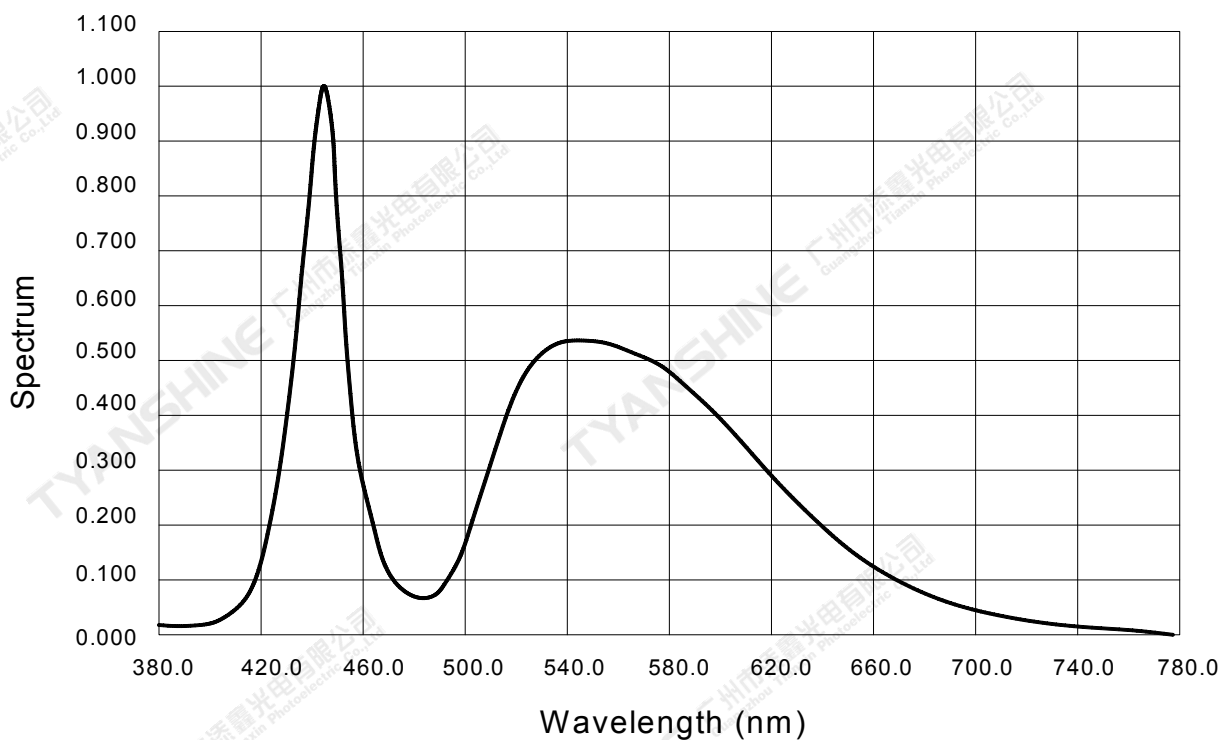


Temperature VS. Relative Luminous Flux (IF=0.5A)





Relative Spectral Distribution



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 $\pm 5^\circ$.

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Usage Precautions

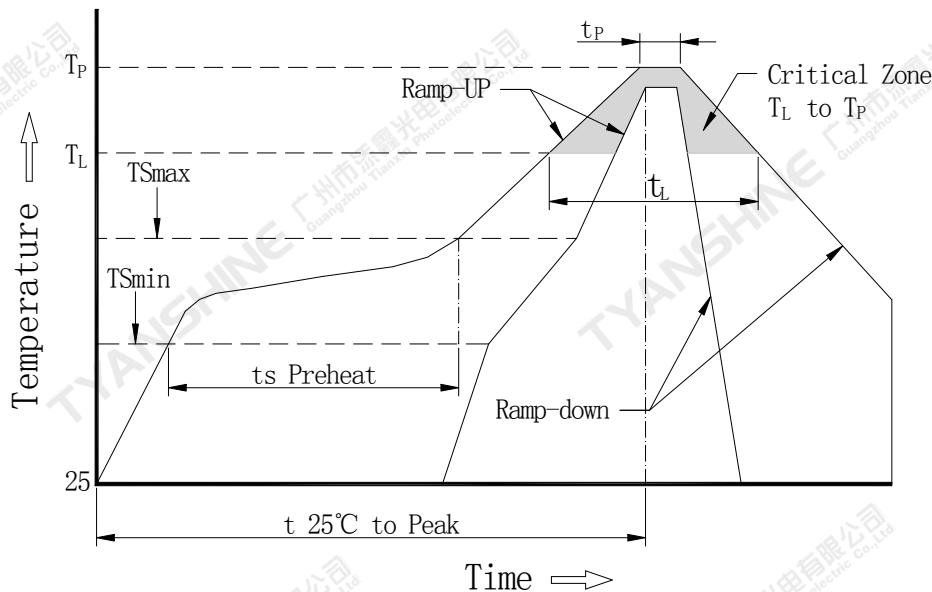
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



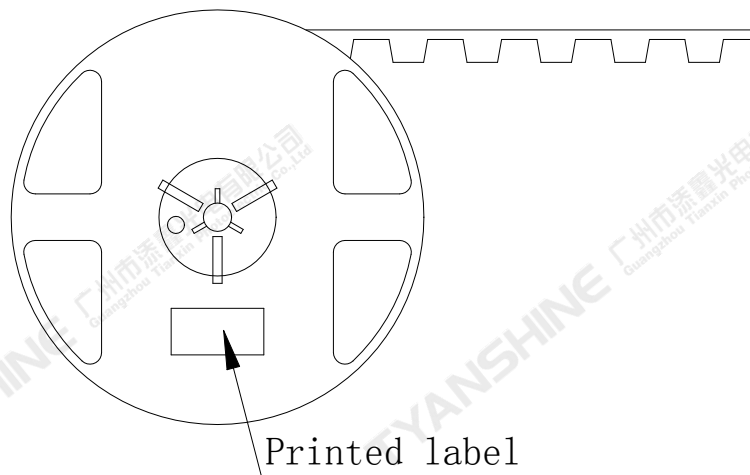
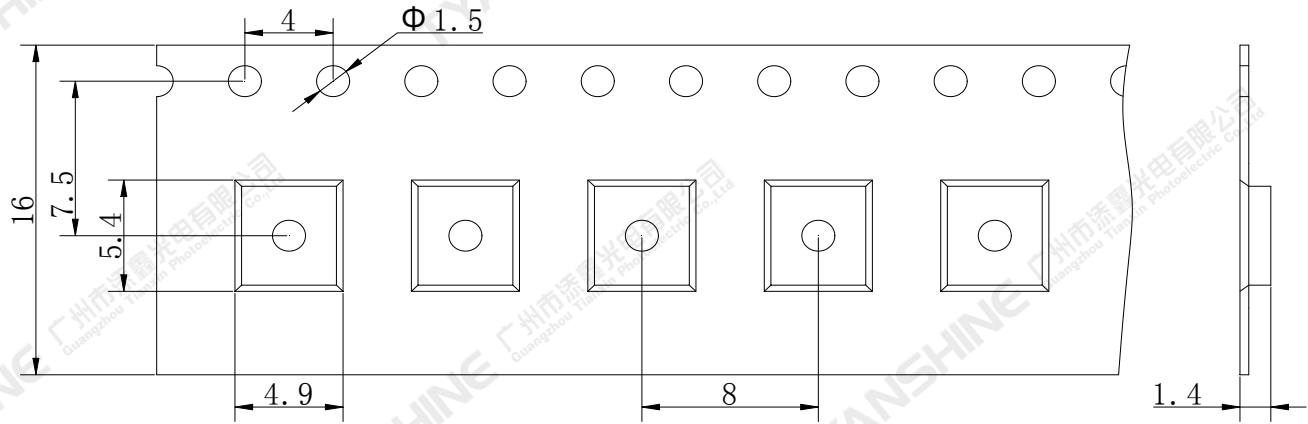
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (TS _{max} to TP)	3°C/second max.
Preheat: Temperature Min (TS _{min})	100°C
Preheat: Temperature Max (TS _{max})	150°C
Preheat: Time (TS _{min} to TS _{max})	60-120 seconds
Time Maintained Above: Temperature (TL)	183°C
Time Maintained 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:1000PCS



Printed label

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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