

TX-2016B8VSA1-NP3CD-01

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 2500mA.
- ◆High luminous output.
- ◆No UV.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆GaN

Emitting Color:

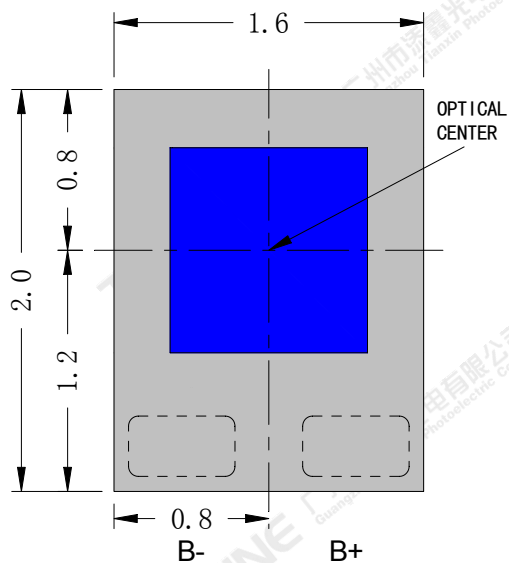
- ◆ Blue(B)

Applications:

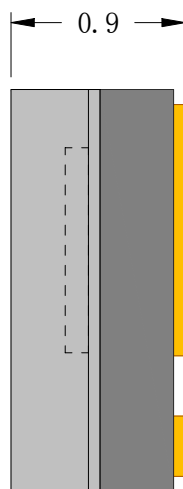
- ◆Portable Flashlight
- ◆Garden lighting
- ◆General Lighting

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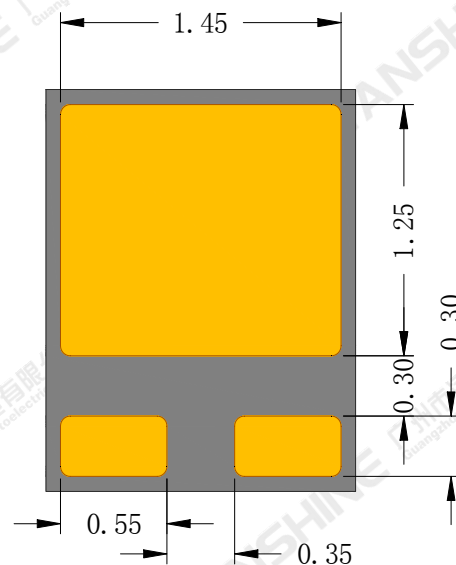
Package Dimensions:



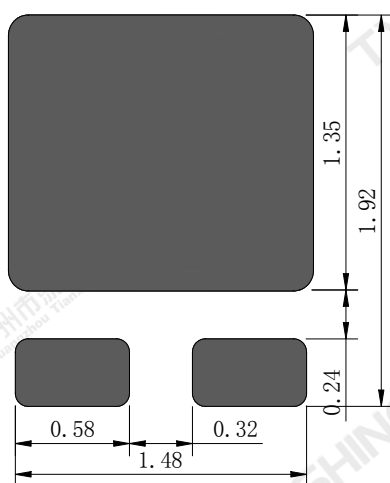
Top view



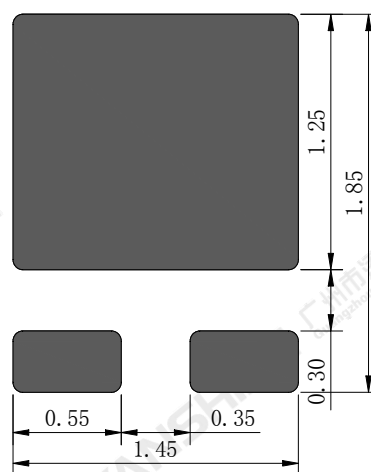
Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

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

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol	Ratings	Unit
Forward Current	IF	2500	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	10.25	W
Junction Temperature	Tj	150	℃
Electrostatic Discharge Threshold (ESD)	ESD	ESD sensitive device	V
Storage Temperature	Tstg	-40~+70	℃
Operation Temperature	Topr	-30~+85	

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=1.0A)

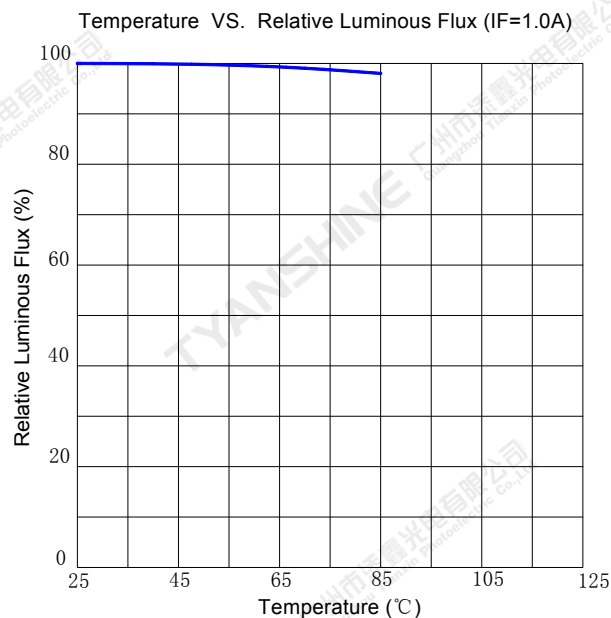
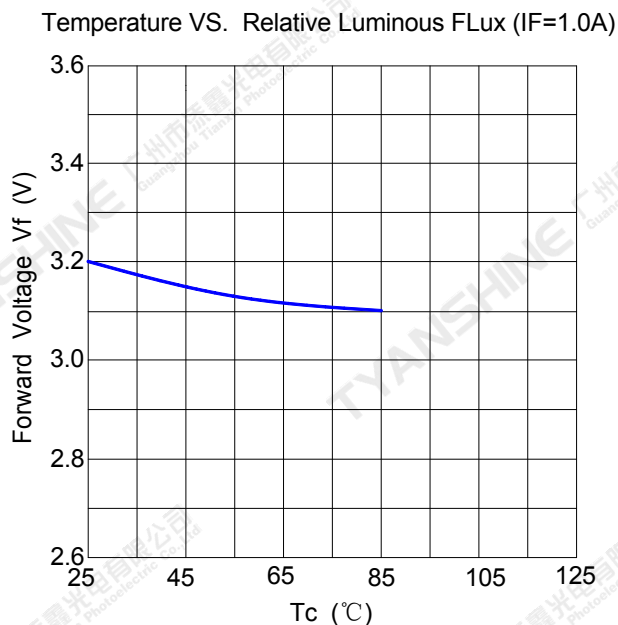
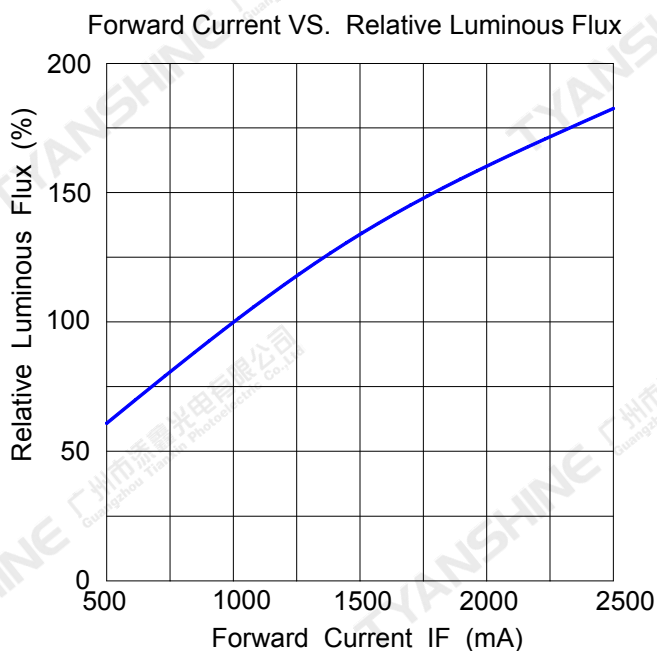
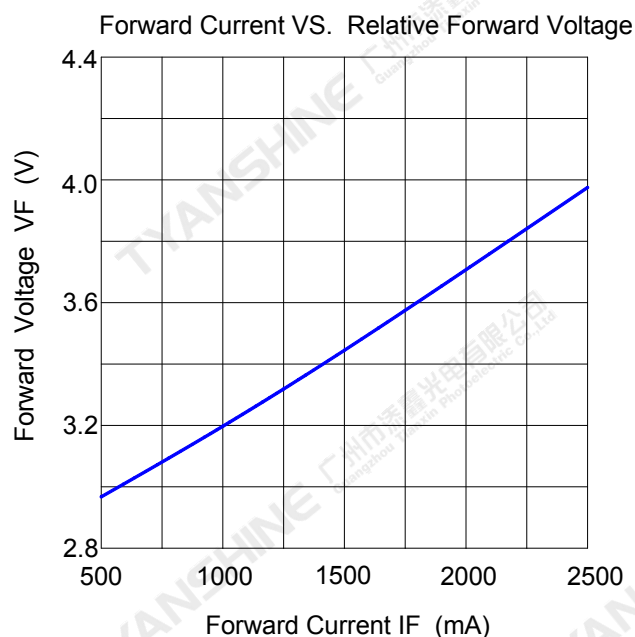
Parameter	Symbol	Min.	Typ.	Max.	Units
Luminous Flux	Φ_v	32	40	—	lm
Forward Voltage	V_f	2.9	3.2	3.5	V
Peak Emission Wavelength	λ_p	445	450	455	nm
Dominant Wavelength	λ_d	450	455	460	nm
Spectral Line Half-Width	$\Delta\lambda$	15	19	23	nm
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	120	—	Deg
Reverse Current	I_R	—	—	2	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	4.8	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	—	-3.3	—	mV/°C

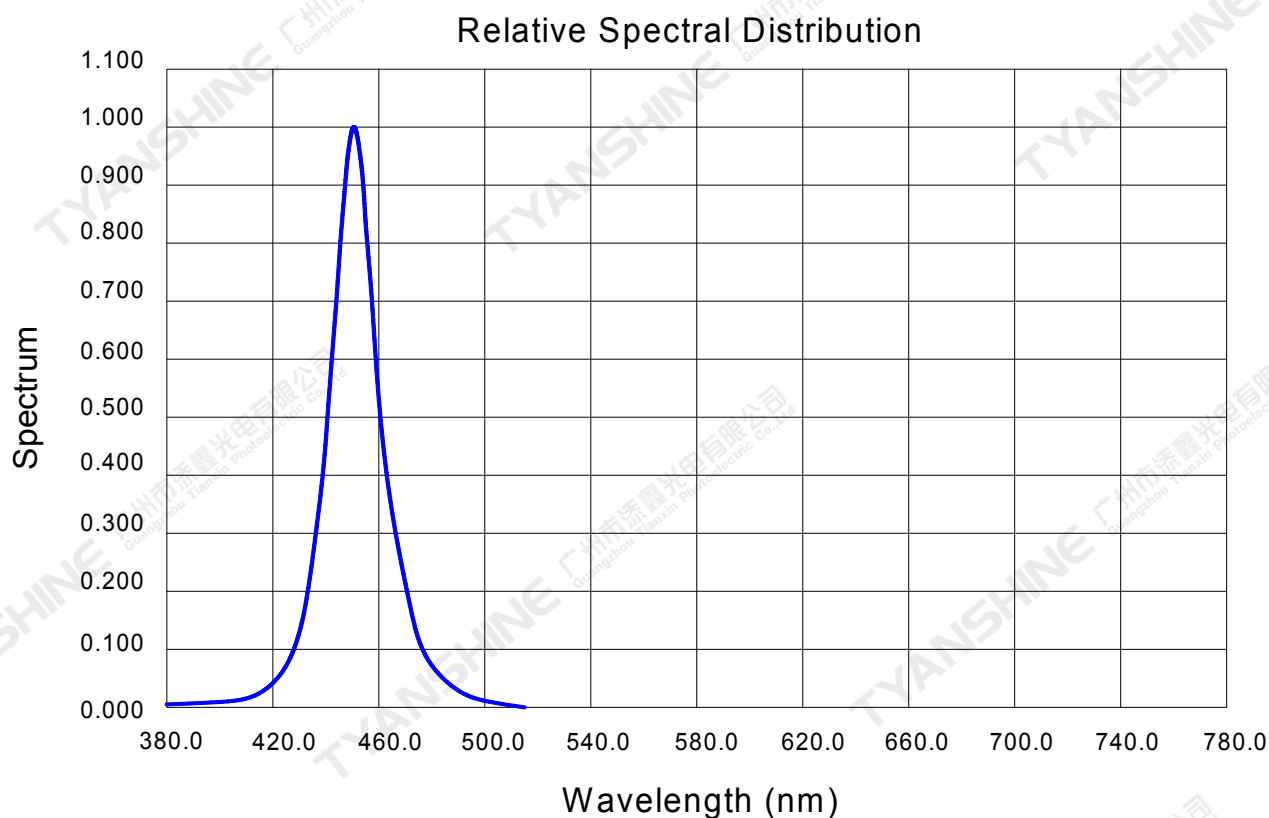
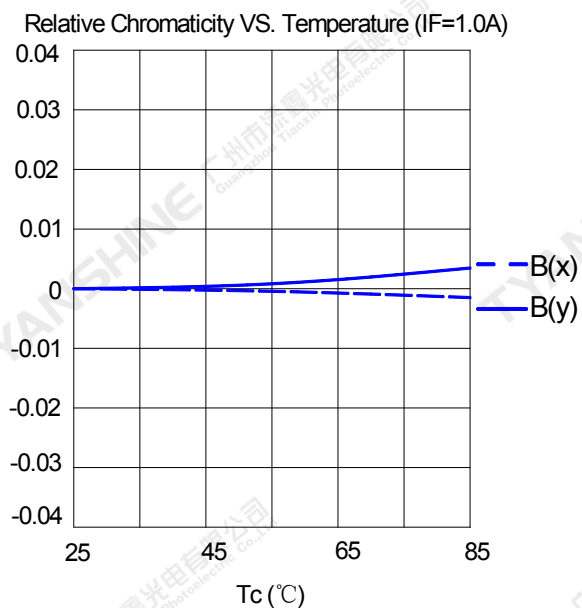
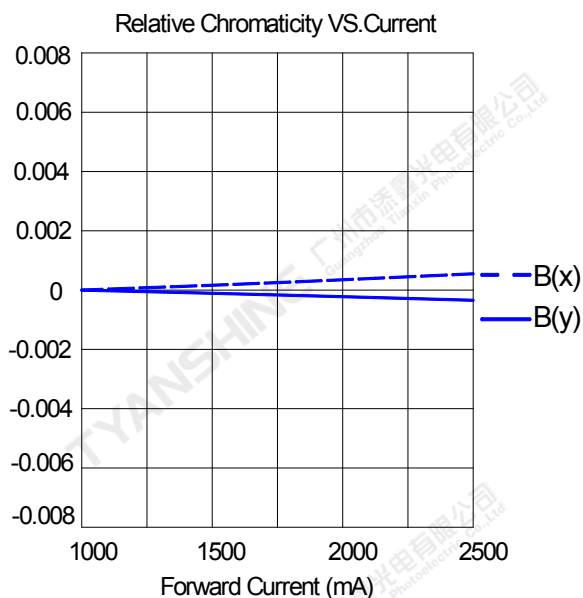
Notes:

- 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:±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:** — Blue (B) ;



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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

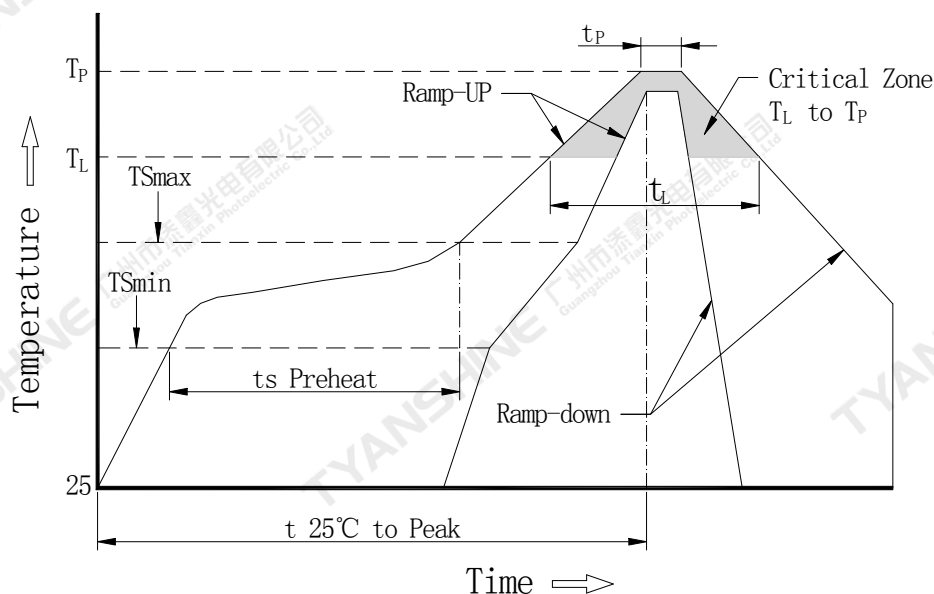
Storage Environment Condition

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
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/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°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.