

TX-2016W8VSA1-NP3CD-01H95

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 2000mA.
- ◆High luminous output.
- ◆No UV.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆GaN

Emitting Color:

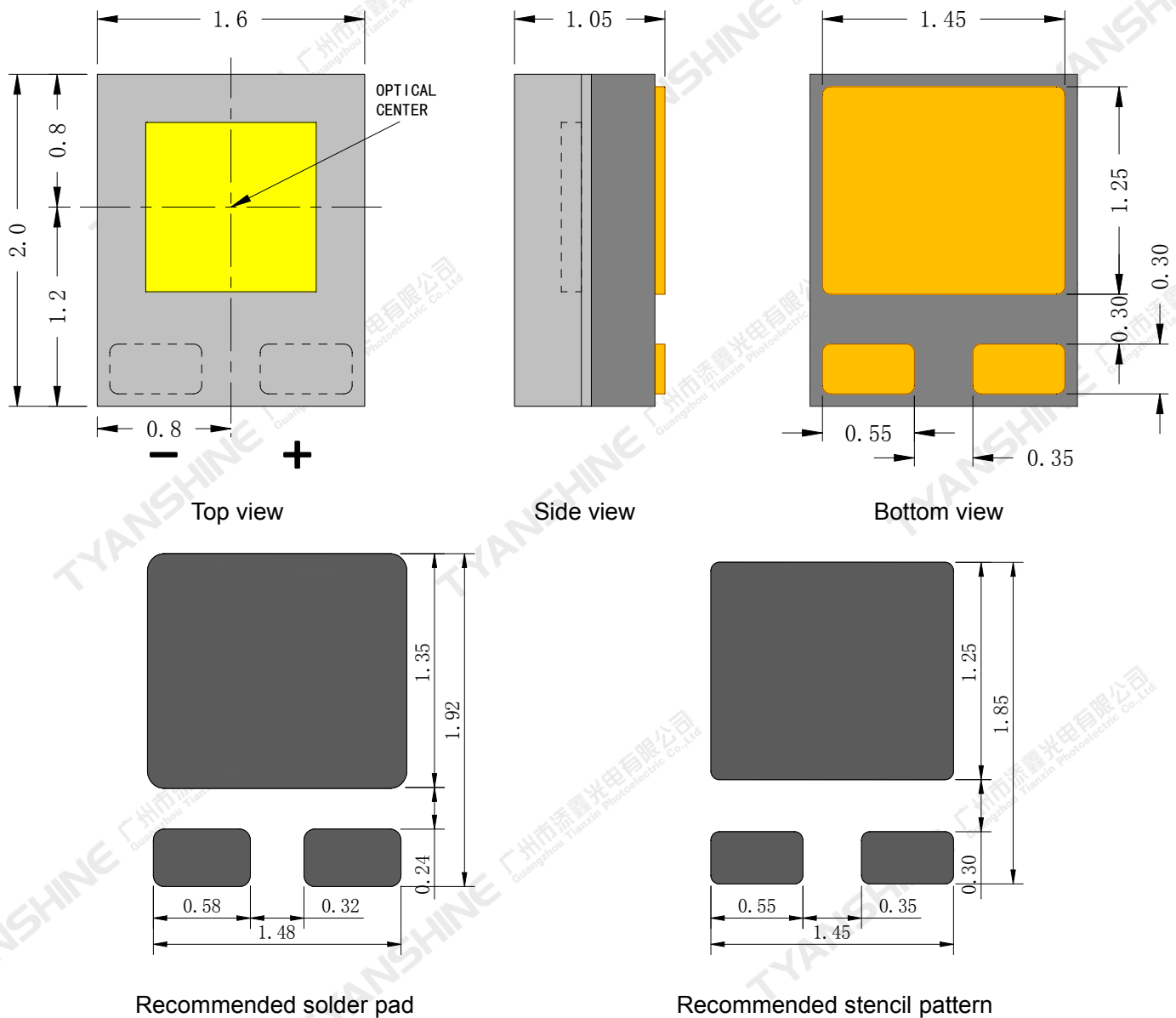
- ◆White(W)/Warm White(S)

Applications:

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

Part No.	TX-2016W8VSA1-NP3CD-01H95	Spec No.	WKF-EP0004	Page	1 of 8
----------	---------------------------	----------	------------	------	--------

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	IF	2000	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	9.25	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	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	Φ_v	S(TypTC:2700K)	140	160	—	lm
		W(TypTC:6000K)	190	210	—	
Forward Voltage	V_f	—	2.8	3.1	3.4	V
Correlated Colour Temperature	CCT	S(TypTC:2700K)	2600	2700	2800	K
		W(TypTC:6000K)	5500	6000	6500	
Color Rendering Index	Ra	—	95	—	—	—
Spectral Line Half-Width	$\Delta\lambda$	—	19	24	29	nm
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	—	120	—	Deg
Reverse Current	I_R	—	—	—	2	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	4.5	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	—	—	-2.8	—	mV/°C

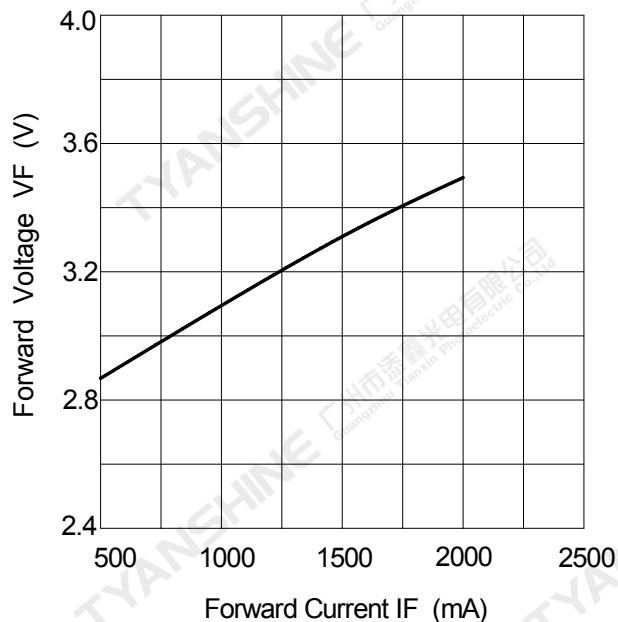
Notes:

- 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.

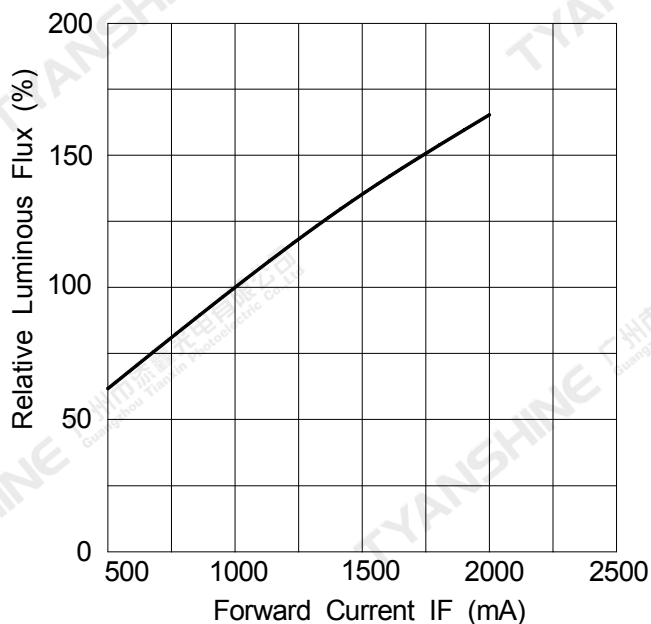
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

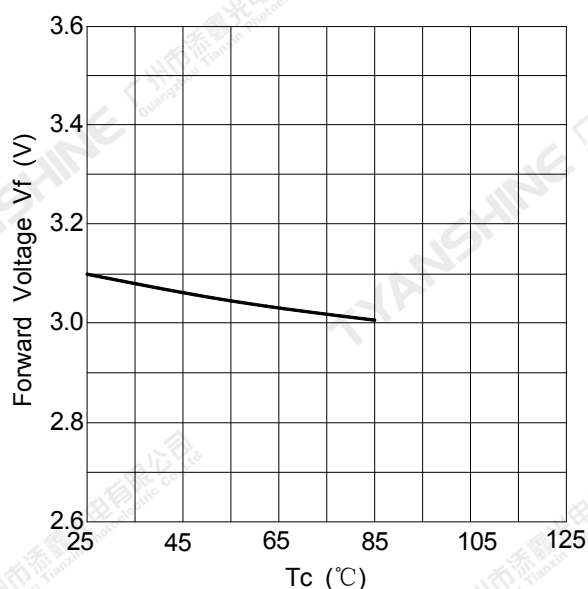
Forward Current VS. Relative Forward Voltage



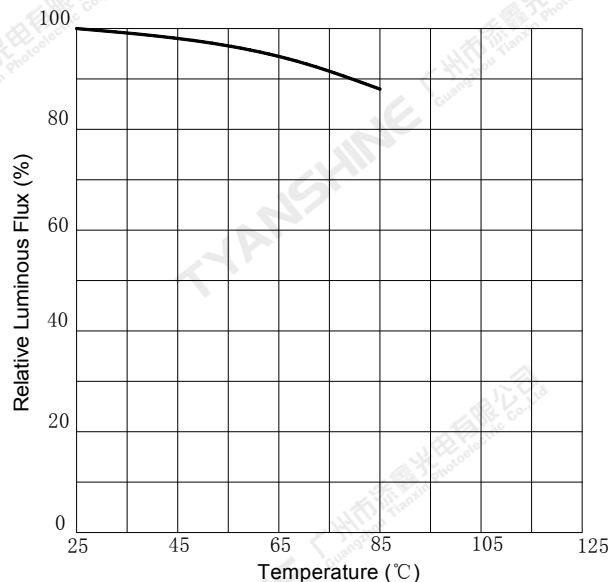
Forward Current VS. Relative Luminous Flux

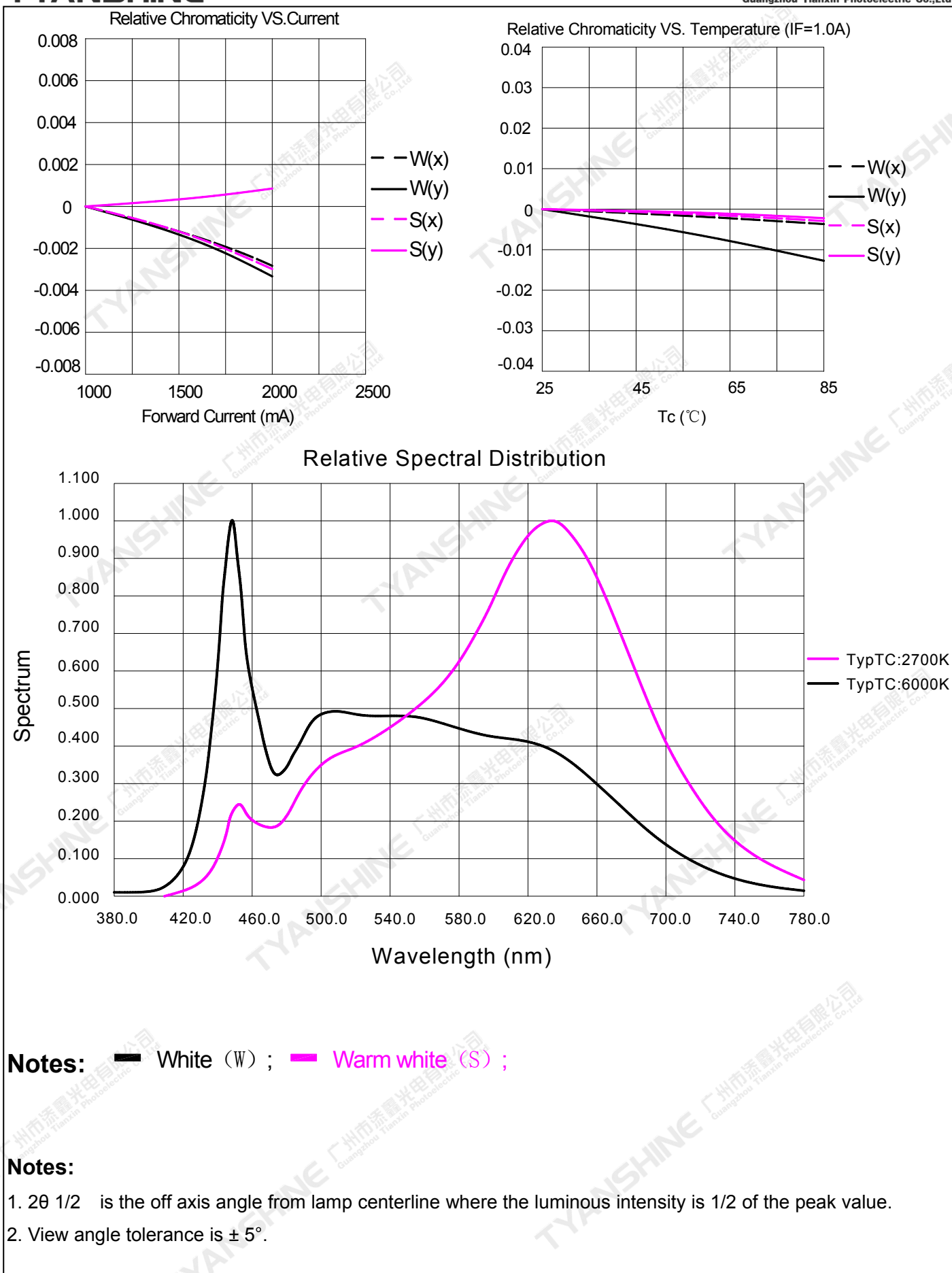


Temperature VS. Relative Luminous FLux (IF=1.0A)



Temperature VS. Relative Luminous Flux (IF=1.0A)

**Notes:** — White (W) ; — Warm white (S) ;



Usage Precautions

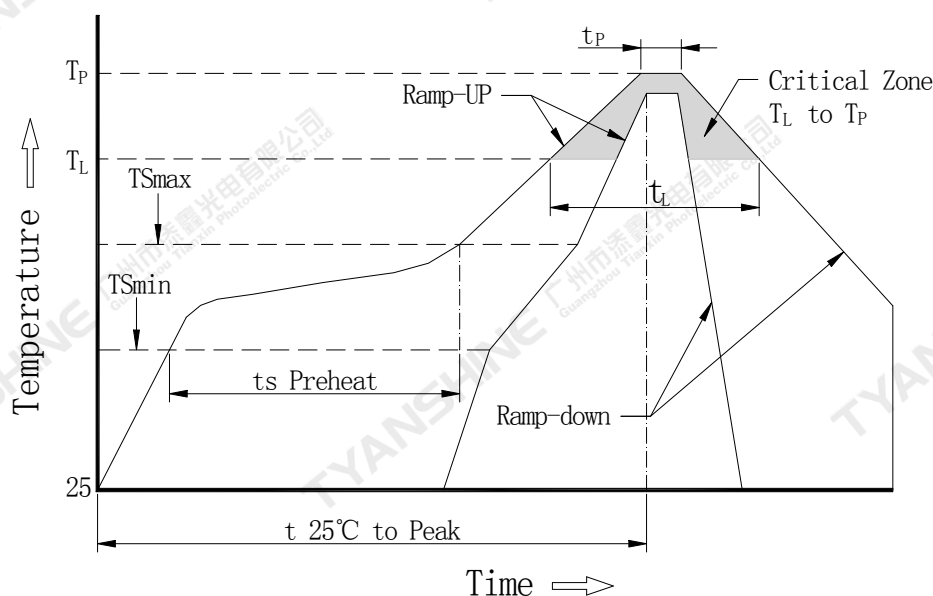
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown in the figure below.



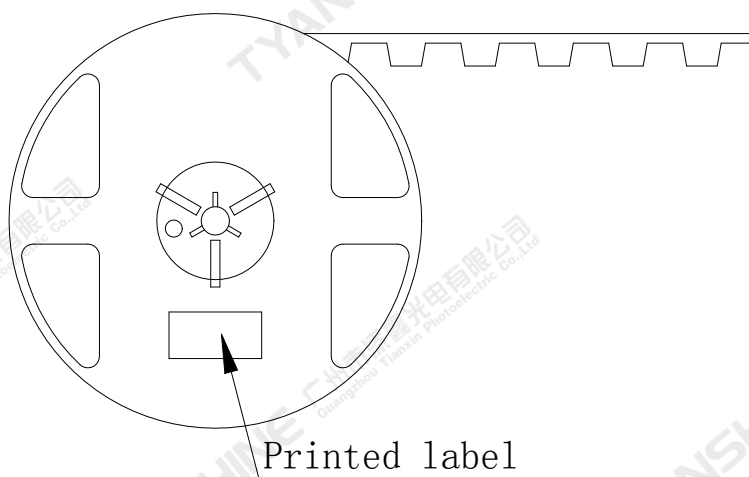
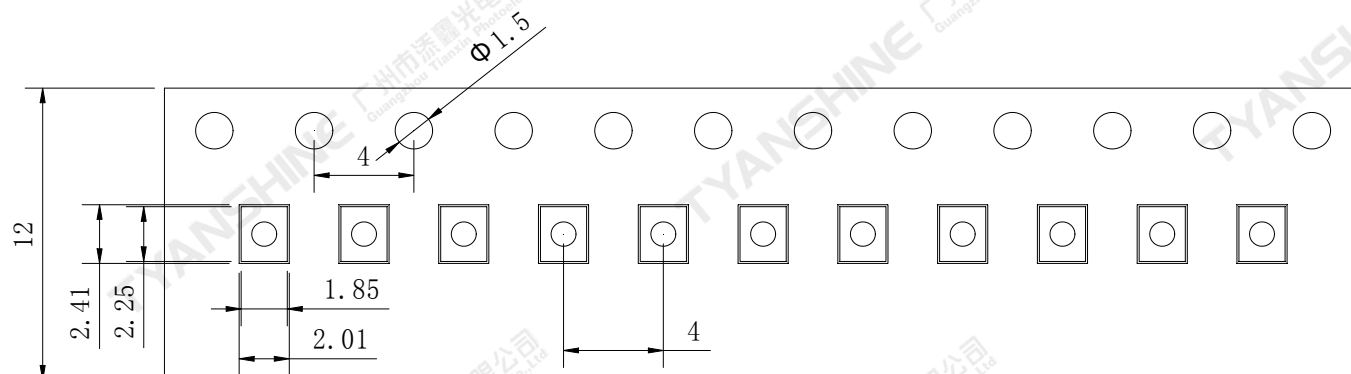
Profile Feature	Pb-Free Solder
Average Ramp-Up Rate (TSmax to TP)	3°C/second max.
Preheat: Temperature Min (TSmin)	100°C
Preheat: Temperature Max (TSmax)	150°C
Preheat: Time (TSmin to TSmax)	60-120 seconds
Time Maintained Above: Temperature (TL)	183°C
Time Maintained Above: Time (TL)	60-150 seconds
Peak/Classification 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: 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.

Part No.	TX-2016W8VSA1-NP3CD-01H95	Spec No.	WKF-EP0004	Page	8 of 8
----------	---------------------------	----------	------------	------	--------