TX-5050R15FC120-NGVEND34-01

PRODUCT SPECIFICATION

Features:

◆Excellent transiting heat from LED chip operating under 3.0A.

◆High luminous output.

◆No UV.

◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

◆AlInGaP

Emitting Color:

◆Red(R)

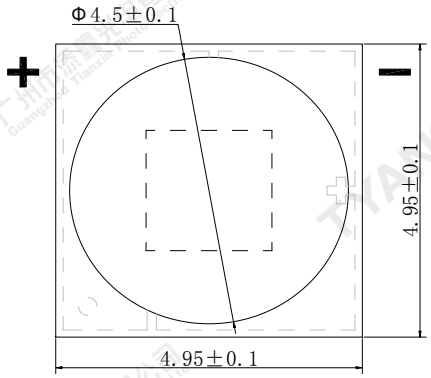
Applications:

◆Auxiliary lighting

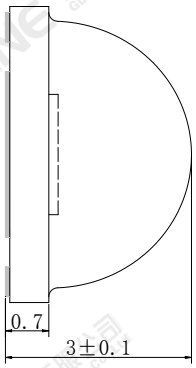
◆Ambient lighting

◆Architectural lighting

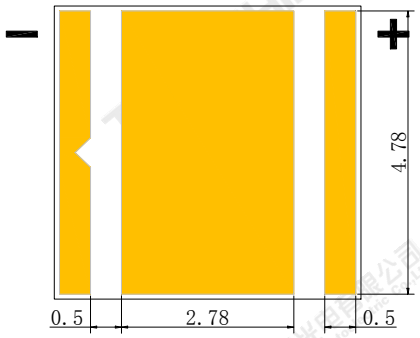
Package Dimensions:



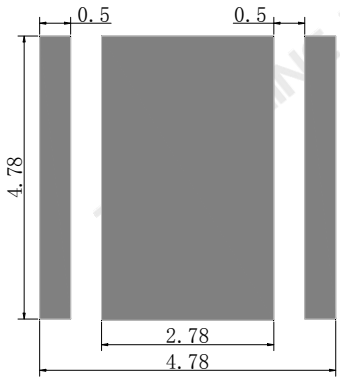
Top view



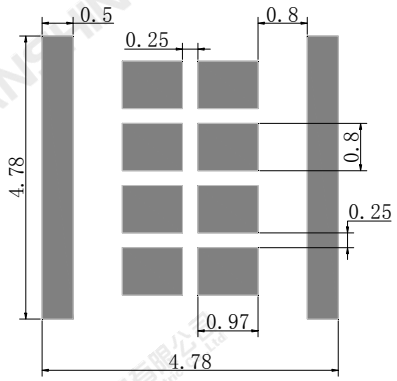
Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

1.All dimensions are in millimeters .

2.Tolerances unless otherwise mentioned are ±0.1mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol	Ratings	Unit
Forward Current	IF	3000	mA
Reverse Voltage	V_R	Not designed for reverse operation	V
Power Dissipation	P_D	11.7	W
Junction Temperature	Tj	115	℃
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Storage Temperature	T_{stg}	-40~+70	℃
Operation Temperature	T_{opr}	-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，0.7A)

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	R	95	110	120	lm
Dominant Wavelength	λd	R	617	623	625	nm
Peak-emission Wavelength	λp	R	627	633	635	nm
Spectral Line Half-Width	△λ	R	10	15	20	nm
Forward Voltage	V_f	R	2.1	2.3	2.6	V
Reverse Current	I_R	—	—	—	—	μA
Viewing Angle at 50％IV	$2\theta_{1/2}$	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R\theta_{J-C}$	R	—	3.4	—	K/W
Temperature Coefficient of Voltage	V△F/T	R	—	-2.1	—	mV/℃

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%.

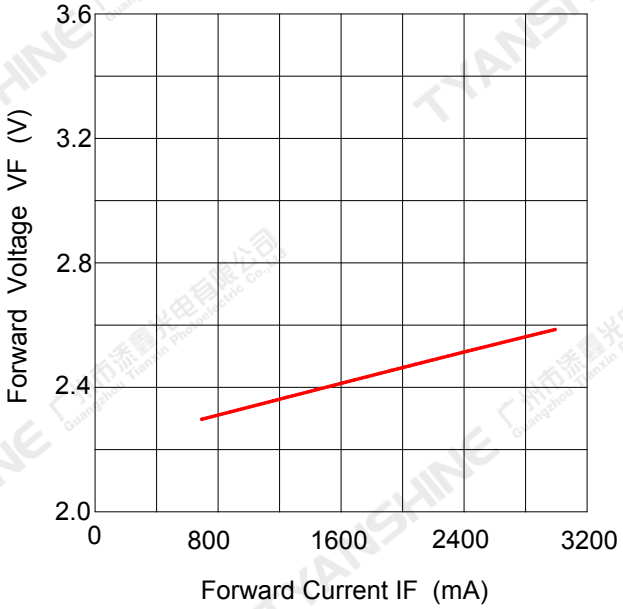
4.Forward voltage measurement tolerance:±10%V.

5.Ra measurement tolerance:±2.

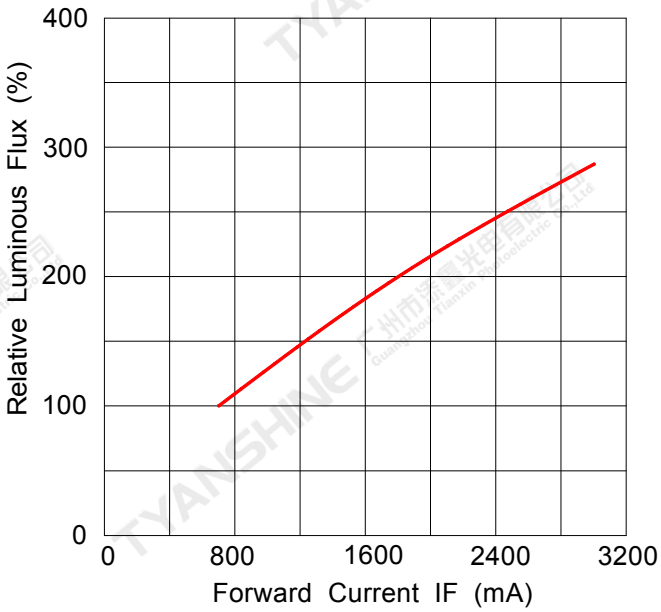
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

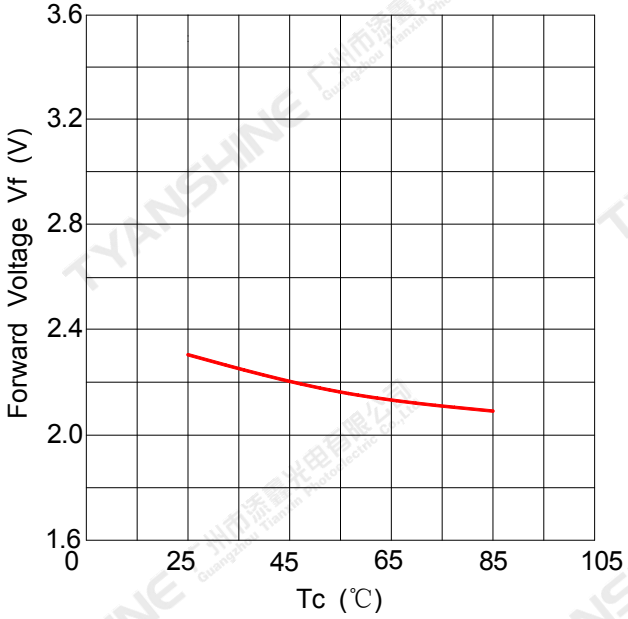
Forward Current VS. Relative Forward Voltage



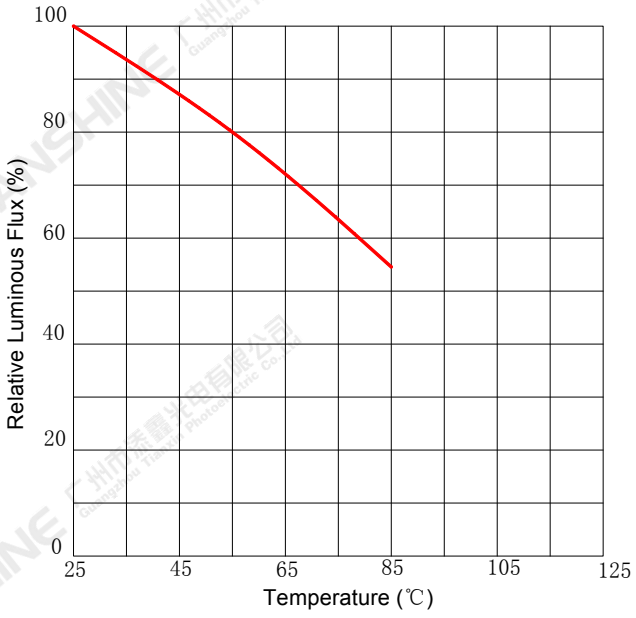
Forward Current VS. Relative Luminous Flux



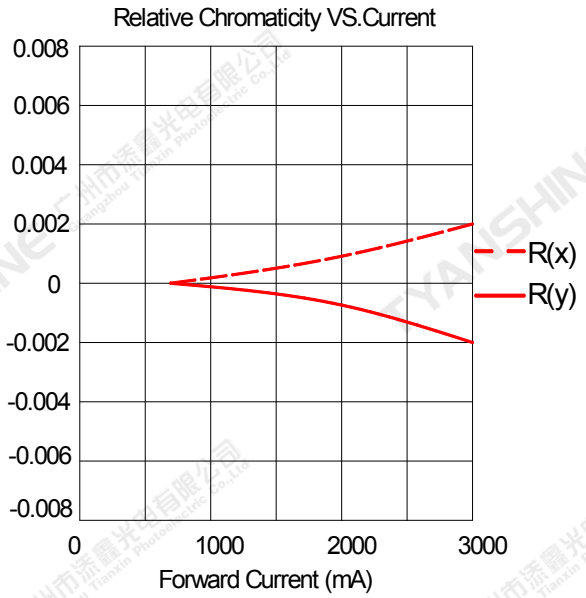
Temperature VS. Relative Luminous FLux (IF=0.7A)

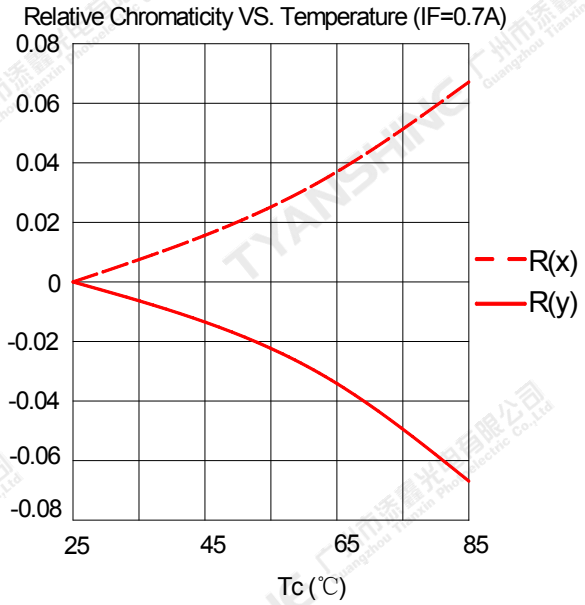


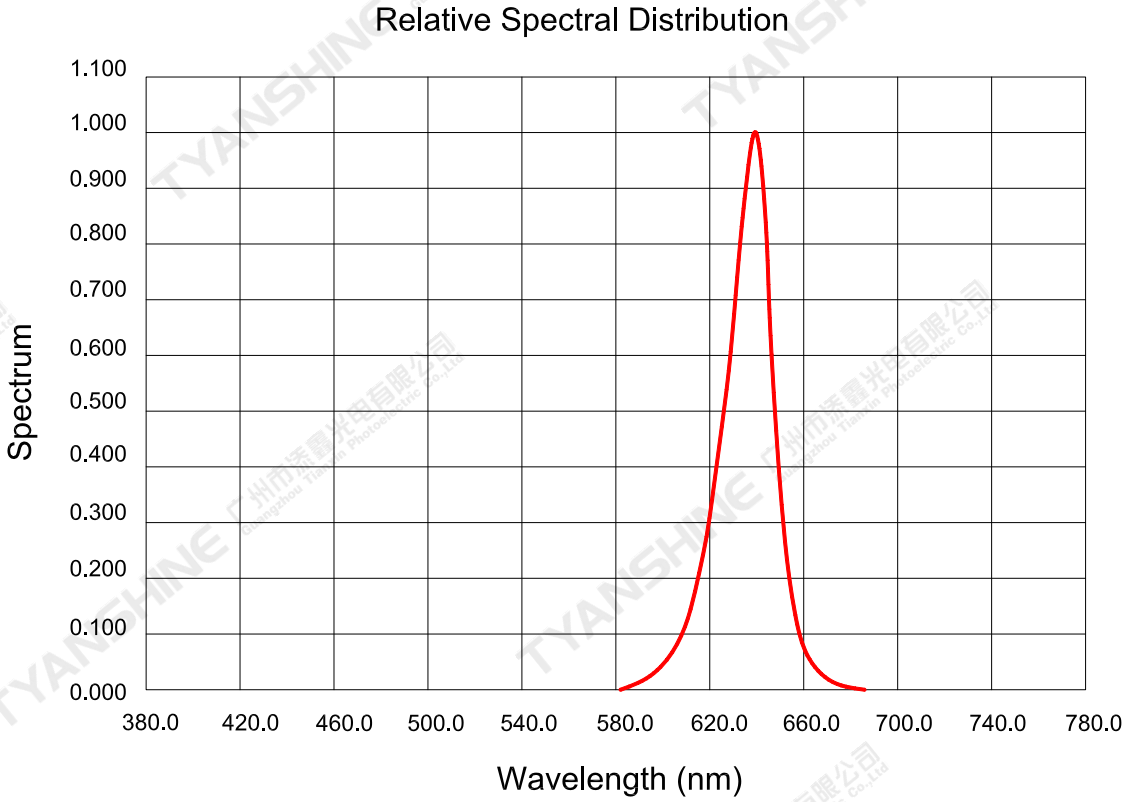
Temperature VS. Relative Luminous Flux (IF=0.7A)



Notes: Red（R）;







Notes: Red（R）;

Notes:

1. 2θ 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 ± 5°.

Usage Precautions

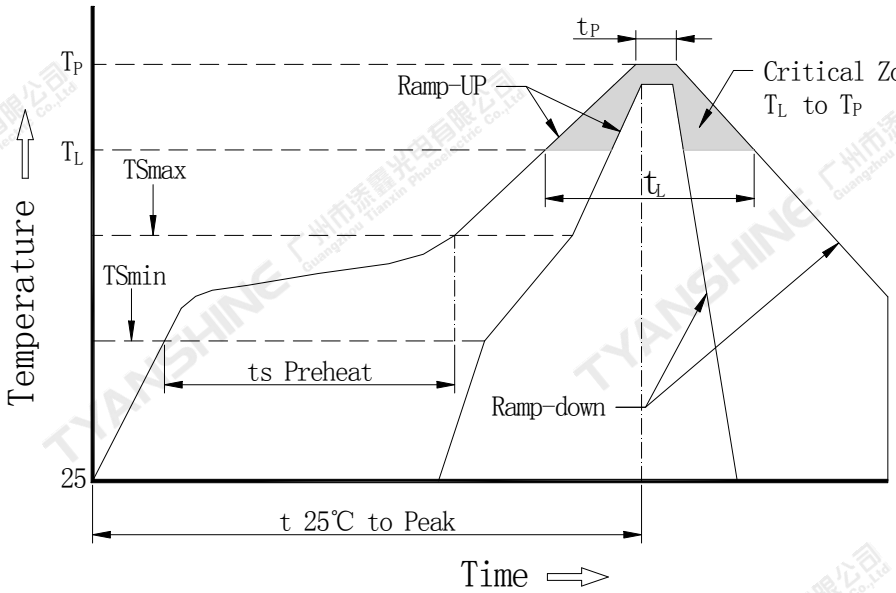
Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



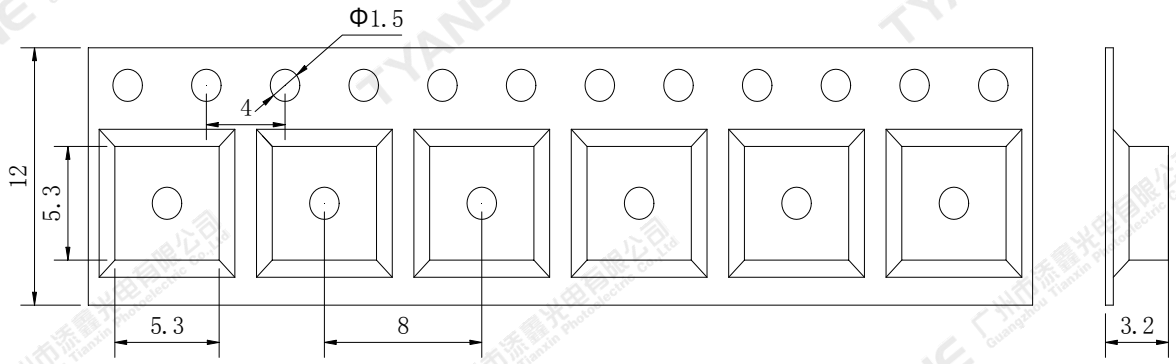
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (Ts_{max} to T_p)	3℃/second max.
Preheat: Temperature Min (Ts_{min})	100℃
Preheat: Temperature Max (Ts_{max})	150℃
Preheat: Time (Ts_{min} to Ts_{max})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183℃
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	225℃
Time Within 5℃ of Actual Peak Temperature (T_P)	10-30 seconds
Ramp-Down Rate	6℃/second max.
Time 25℃ to Peak Temperature	6 minutes max.

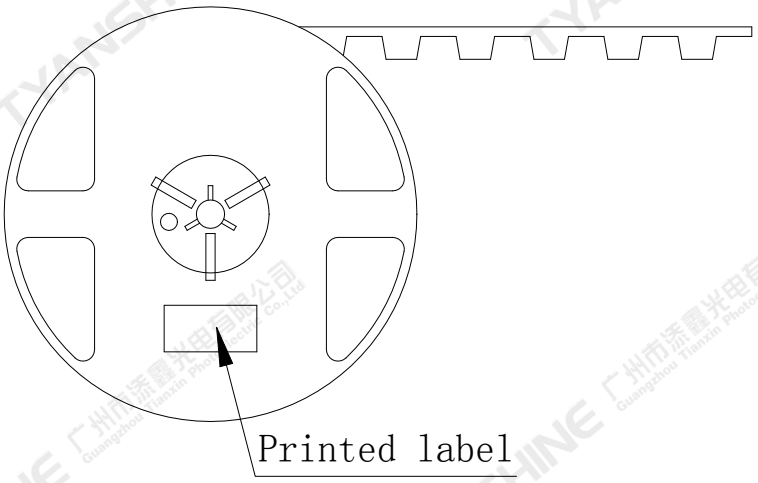
Note:

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

Dimensions For Cannulation And Packaging

Quantity:500PCS





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, Irre sponsible of the Company.