

TX-5050W20FC100-NUVCNG-B01

PRODUCT SPECIFICATION

Features:

- ◆ Excellent transiting heat from LED chip operating under 1.0A.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ ThinGaN

Emitting Color:

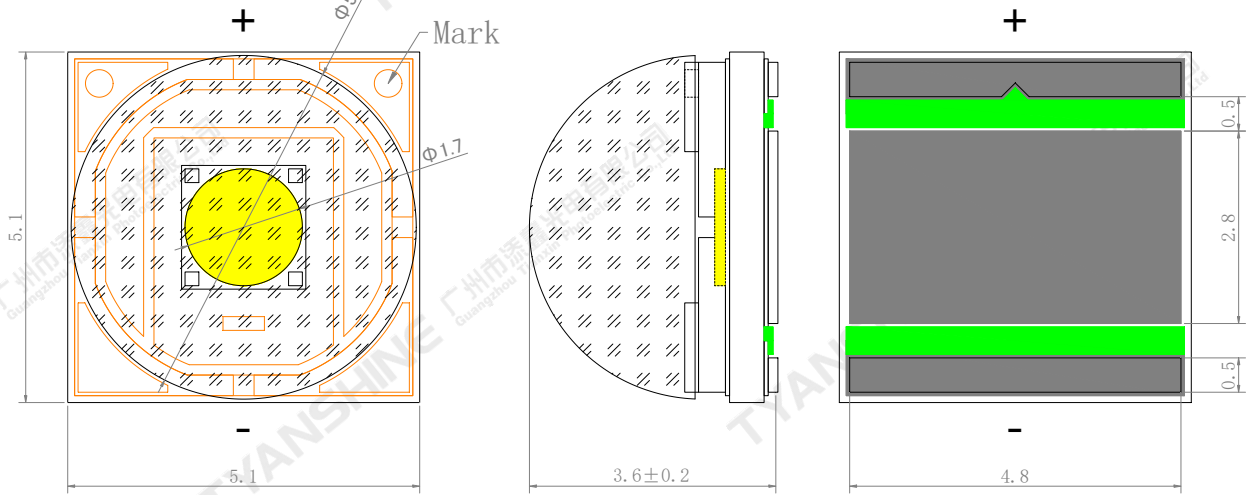
- ◆ White (W)

Applications:

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

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Package Dimensions:



Notes:

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are ± 0.1 mm .

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Absolute Maximum Ratings (Tc=25°C)

| Parameter | Symbol | Ratings | Unit |
|---|--------|------------------------------------|------|
| Forward Current | IF | 5.5 | A |
| Reverse Voltage | VR | Not designed for reverse operation | V |
| Power Dissipation | PD | 24 | W |
| Junction Temperature | Tj | 150 | °C |
| Electrostatic Discharge Threshold (ESD) | ESD | 2000 | V |
| Storage Temperature | Tstg | -20~+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.

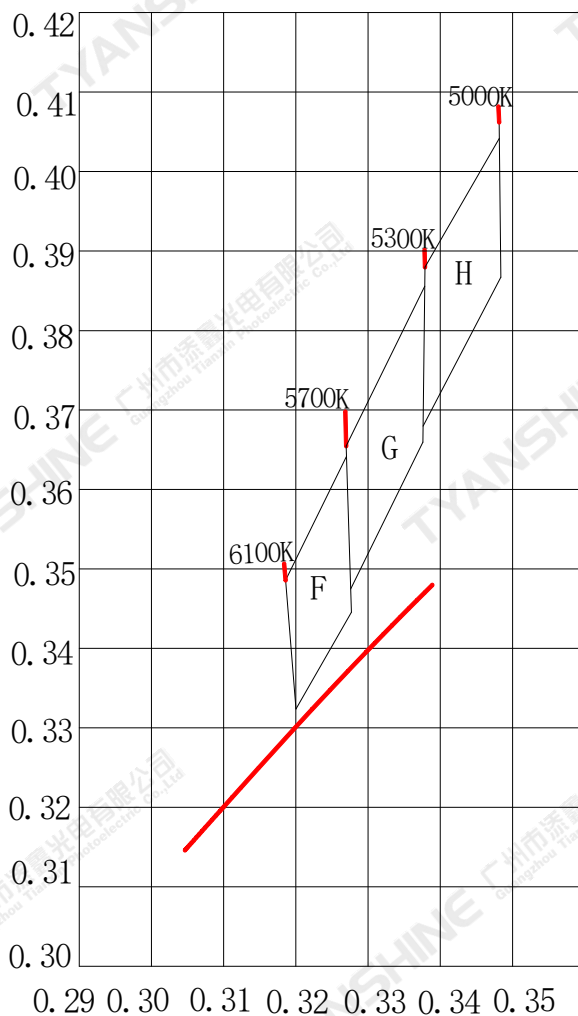
Electrical Optical Characteristics (Tc=25°C)

| Parameter | Symbol | Condition | Emitting color | Min. | Typ. | Max. | Units |
|------------------------------------|-----------------|-----------|----------------|------|-------|------|---------|
| Luminous Flux | Φ_v | If=1.0A | W | 390 | 440 | 490 | lm |
| | | If=5.5A | W | 1240 | 1400 | 1560 | |
| Forward Voltage | V_f | If=1.0A | W | 2.8 | — | 3.6 | V |
| | | If=5.5A | W | 3.8 | — | 4.5 | |
| Viewing Angle at 50% IV | $2\theta_{1/2}$ | — | W | — | 100 | — | Deg |
| Correlated Colour Temperature | CCT | If=1.0A | W | 5000 | — | 6100 | K |
| | | If=5.5A | W | 5400 | — | 6600 | |
| Reverse Current | I_R | — | W | — | — | — | μA |
| Temperature Coefficient of Voltage | $V\Delta F/T$ | If=1.0A | W | — | -6.65 | — | mV/°C |
| | | If=5.5A | W | — | -6.23 | — | |

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:±15%.
- 4.Forward voltage measurement tolerance:±0.15V.

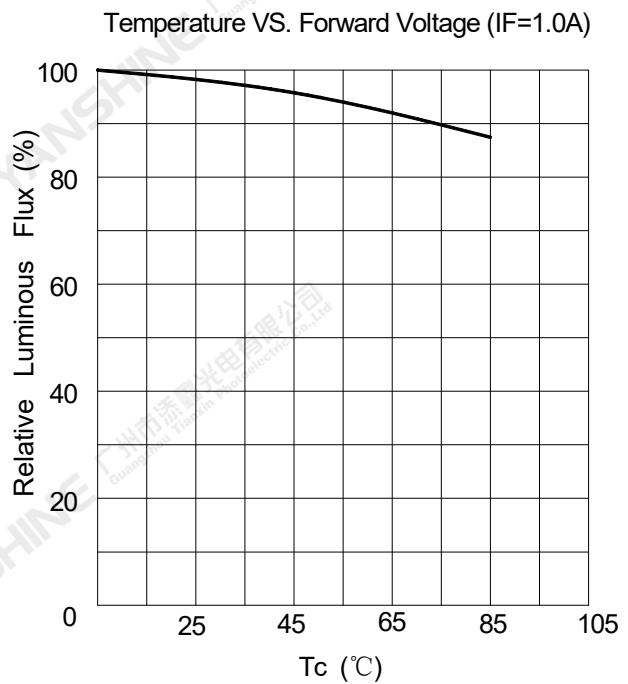
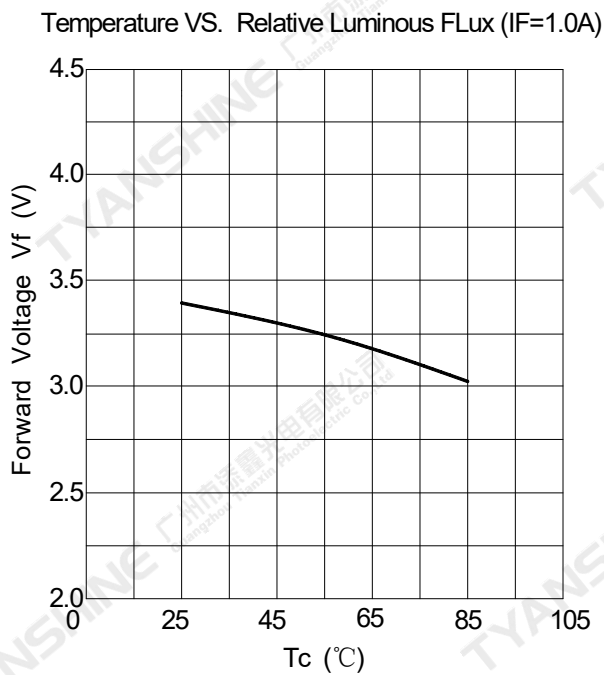
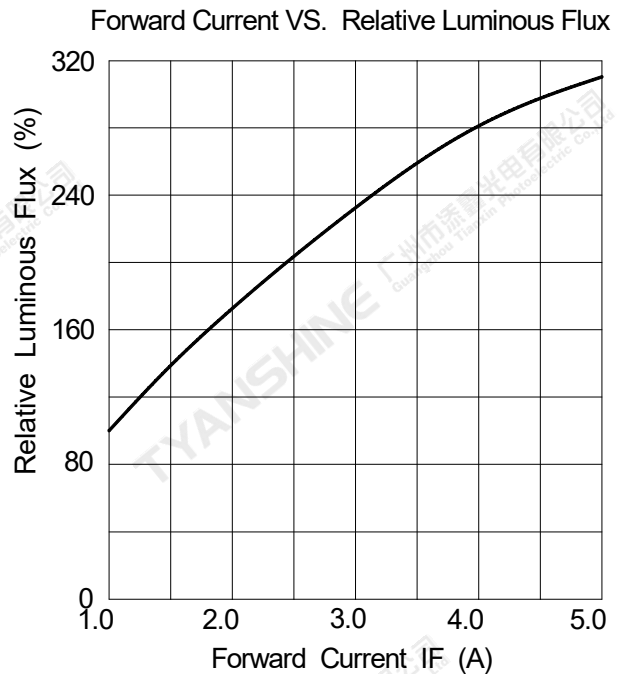
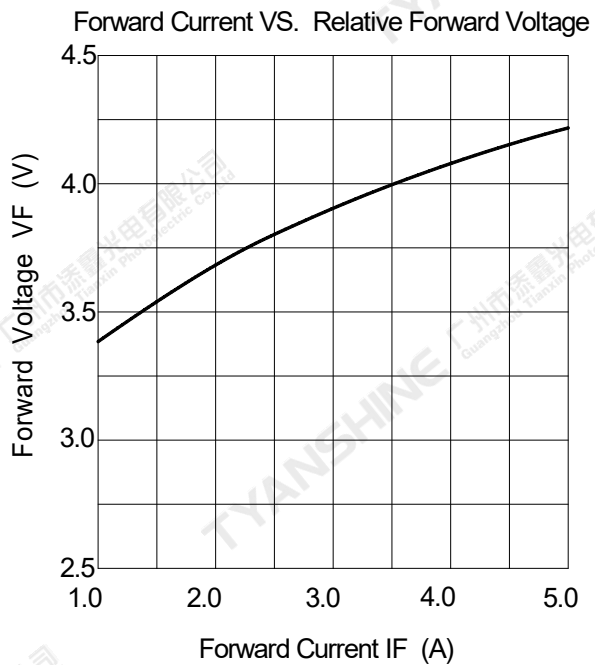
White light Color coordinate filing (IF=1.0A,Tc=25°C)

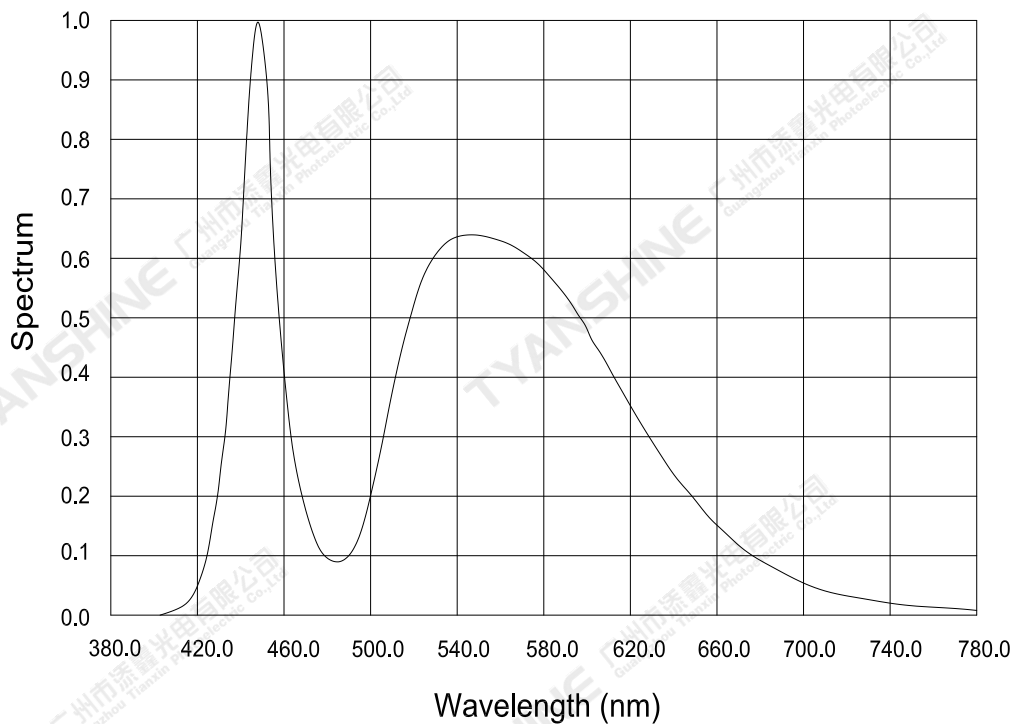
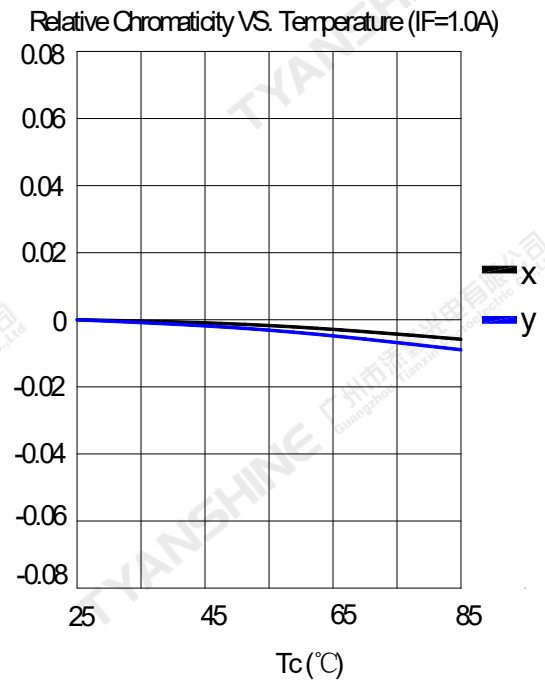
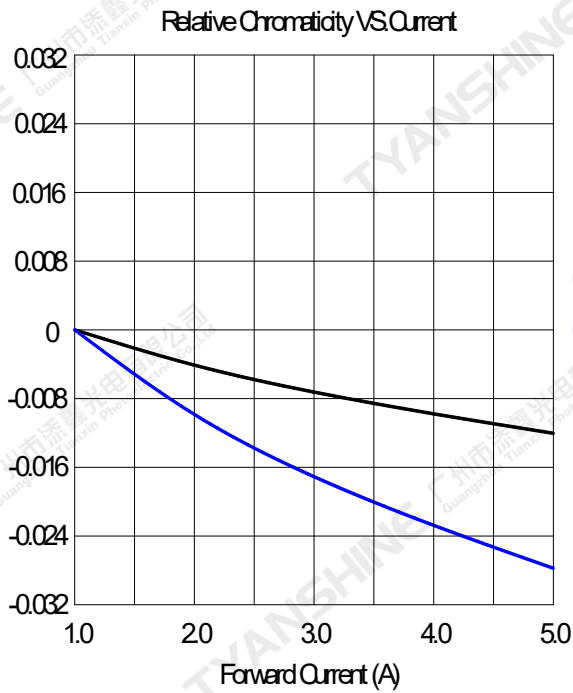


| Region | CCT Range | | X1 | Y1 | X2 | Y2 | X3 | Y3 | X4 | Y4 |
|--------|-----------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Min | Max | | | | | | | | |
| H | 5000K | 5300K | 0.3484 | 0.3867 | 0.3482 | 0.4042 | 0.3379 | 0.3880 | 0.3376 | 0.3680 |
| G | 5300K | 5700K | 0.3376 | 0.3659 | 0.3379 | 0.3856 | 0.3270 | 0.3655 | 0.3276 | 0.3475 |
| F | 5700K | 6100K | 0.3277 | 0.3445 | 0.3270 | 0.3642 | 0.3186 | 0.3486 | 0.3200 | 0.3324 |

Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)





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

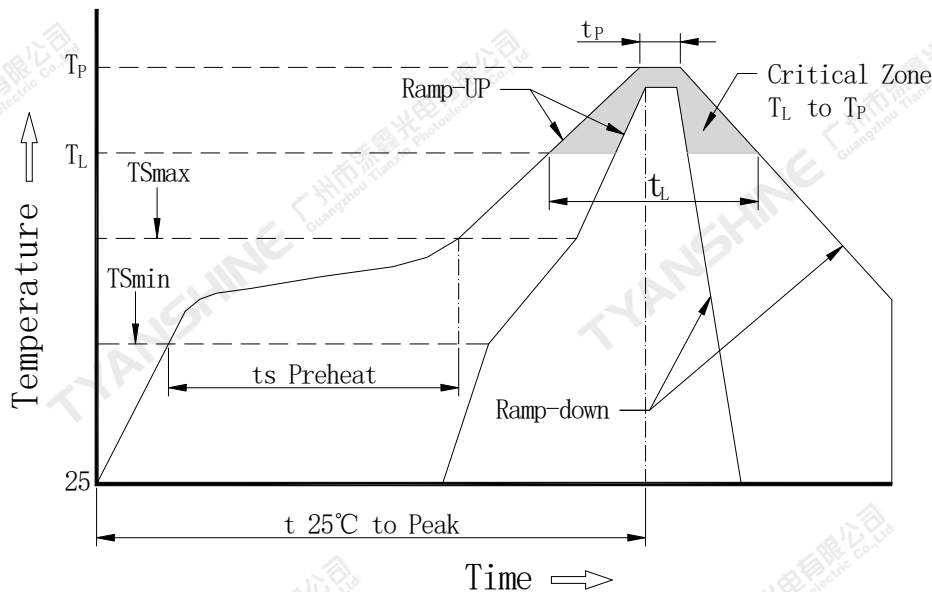
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



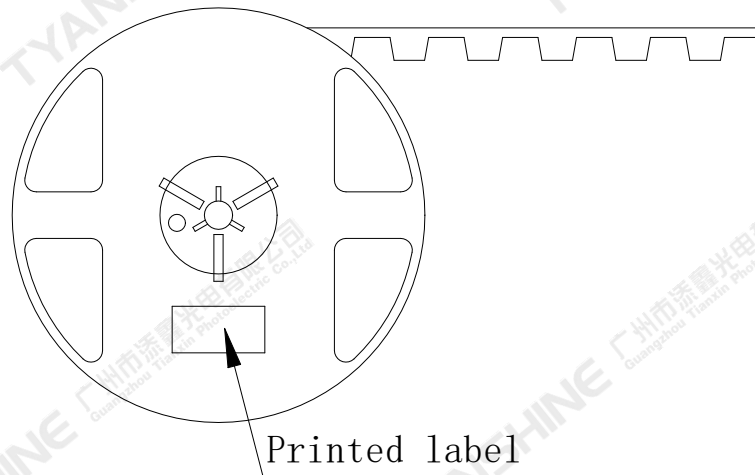
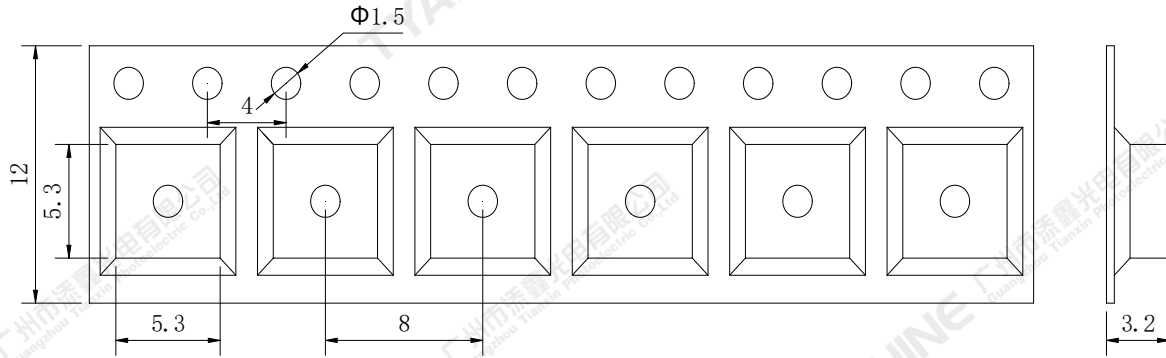
| Profile Feature | Pb-Free Solder(SnBi35Ag0.3) |
|---|-----------------------------|
| Average Ramp-Up Rate (TSmax to TP) | 3°C/second max. |
| Preheat: Temperature Min (TSmin) | 100°C |
| Preheat: Temperature Max (TSmax) | 150°C |
| Preheat: Time (TSmin to TSmax) | 60-120 seconds |
| Time Maintained 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:1000PCS



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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