

# TX-3570W25FSA3-NU3CD-04

## PRODUCT SPECIFICATION

### Features:

- ◆Excellent transiting heat from LED chip operating under 3000 mA.
- ◆Ceramic eutectic package allows it to have minimal internal stress and excellent thermal path.
- ◆Flip chip coated with package, the output of lumen is stable.
- ◆High luminous output.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

### Chip Material:

- ◆GaN

### Emitting Color:

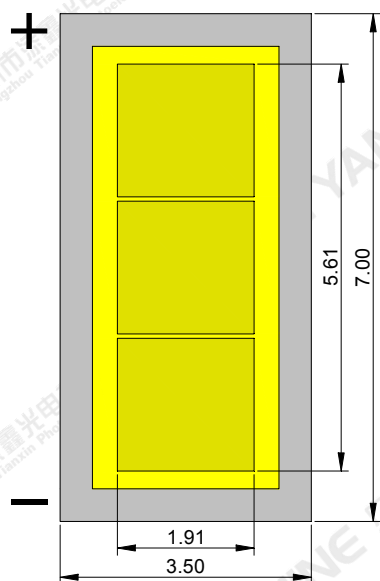
- ◆Cold white

### Applications:

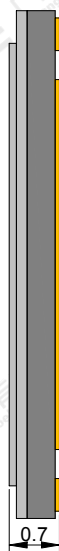
- ◆Automobile lighting

|          |                         |          |            |      |        |
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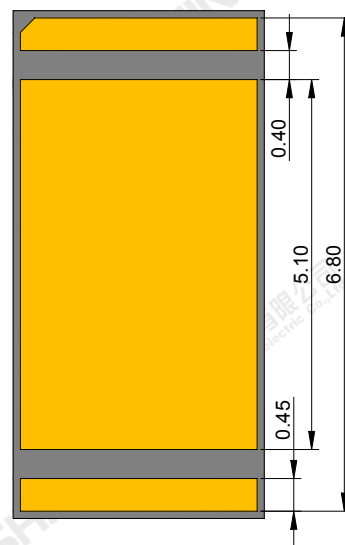
## Package Dimensions:



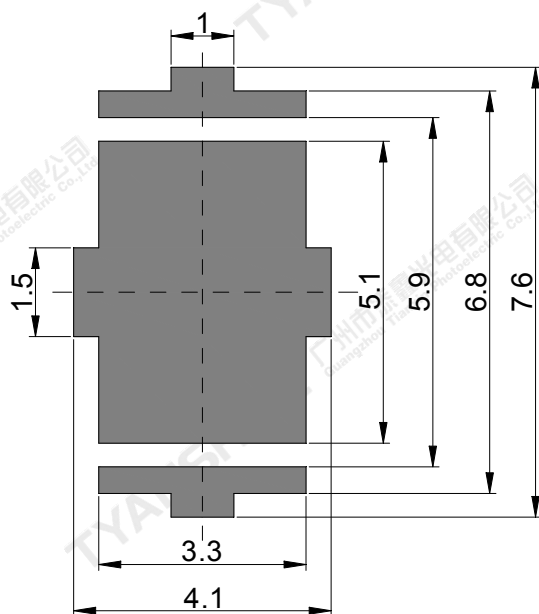
Top view



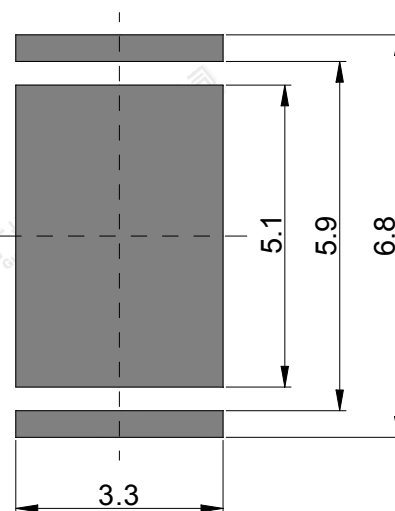
Side view



Bottom view



Recommended solder pad



recommended stencil pattern

## Notes:

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

|          |                         |          |            |      |        |
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## Absolute Maximum Ratings (Tc=25℃)

| Parameter                               | Symbol | Ratings                            | Unit |
|-----------------------------------------|--------|------------------------------------|------|
| Forward Current                         | IF     | 3000                               | mA   |
| Reverse Voltage                         | VR     | Not designed for reverse operation | V    |
| Power Dissipation                       | PD     | 25                                 | W    |
| Junction Temperature                    | Tj     | 150                                | ℃    |
| Electrostatic Discharge Threshold (ESD) | ESD    | 2000                               | V    |
| Storage Temperature                     | Tstg   | -40~+70                            | ℃    |
| Operation Temperature                   | Topr   | -30~+125                           |      |

**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)

| Parameter                           | Symbol           | Condition | Min. | Typ. | Max. | Units   |
|-------------------------------------|------------------|-----------|------|------|------|---------|
| Luminous Flux                       | $\phi_v$         | If=2500mA | 2600 | 2800 | 3150 | lm      |
| Forward Voltage                     | $V_f$            |           | 9.2  | 9.6  | 10.0 | V       |
| Viewing Angle at 50 % IV            | $2\theta_{1/2}$  |           | —    | 120  | —    | Deg     |
| Correlated Colour Temperature       | CCT              | If=1000mA | 5300 | 6250 | 6700 | K       |
| Reverse Current                     | $I_R$            | —         | —    | —    | —    | $\mu A$ |
| Thermal Resistance Junction to Case | $R_{\theta J-C}$ | If=2500mA | —    | 0.4  | —    | K/W     |
| Temperature Coefficient of Voltage  | $V\Delta F/T$    |           | —    | -6   | —    | mV/°C   |

## White light Color coordinate filing (IF=1.0A )

| Region | CCT Range |       | X1     | Y1     | X2     | Y2     | X3     | Y3     | X4     | Y4     |
|--------|-----------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
|        | Min       | Max   |        |        |        |        |        |        |        |        |
| G12    | 5300K     | 5500K | 0.3376 | 0.3626 | 0.3322 | 0.3527 | 0.3322 | 0.3710 | 0.3378 | 0.3813 |
| G10    | 5500K     | 5800K | 0.3322 | 0.3517 | 0.3255 | 0.3395 | 0.3251 | 0.3564 | 0.3322 | 0.3696 |
| F01    | 5800K     | 6300K | 0.3256 | 0.3375 | 0.3169 | 0.3237 | 0.3155 | 0.3373 | 0.3251 | 0.3550 |
| E11    | 6300K     | 6700K | 0.3170 | 0.3227 | 0.3116 | 0.3141 | 0.3096 | 0.3264 | 0.3157 | 0.3359 |

## Notes:

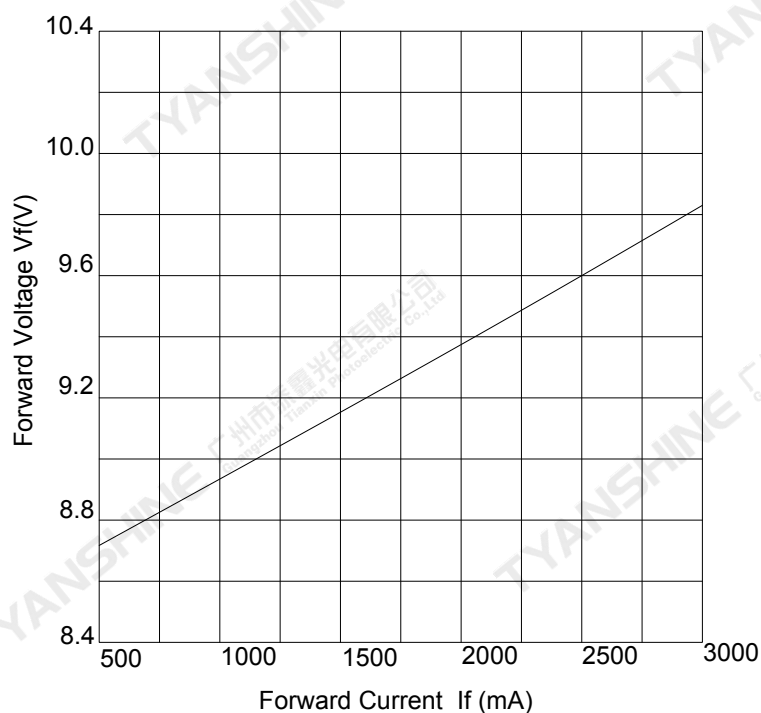
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.The dominant wavelength ( $\lambda_d$ ) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- 4.Luminous flux measurement tolerance:  $\pm 15\%$ .
- 5.Forward voltage measurement tolerance:  $\pm 0.15V$ .

|          |                         |          |            |      |        |
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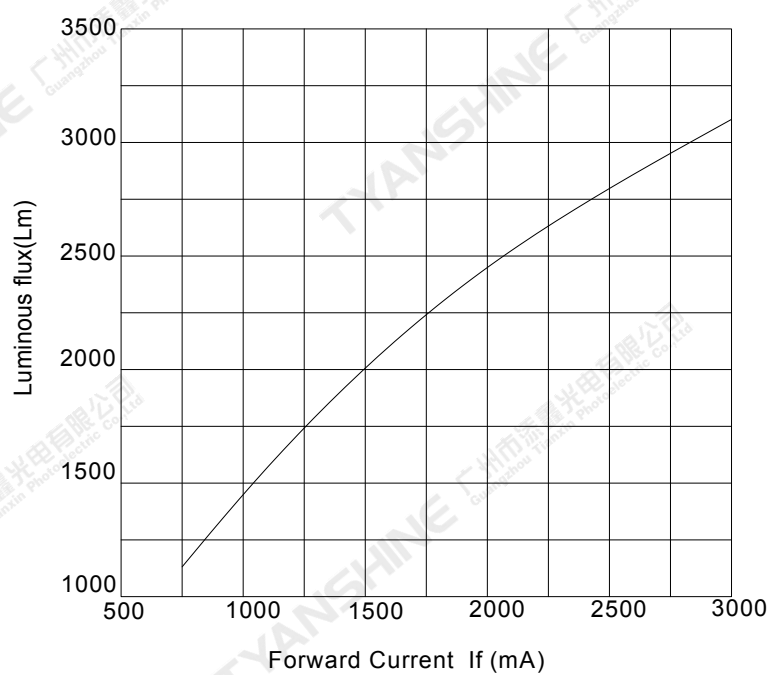
## Typical Electrical/Optical Characteristics Curves

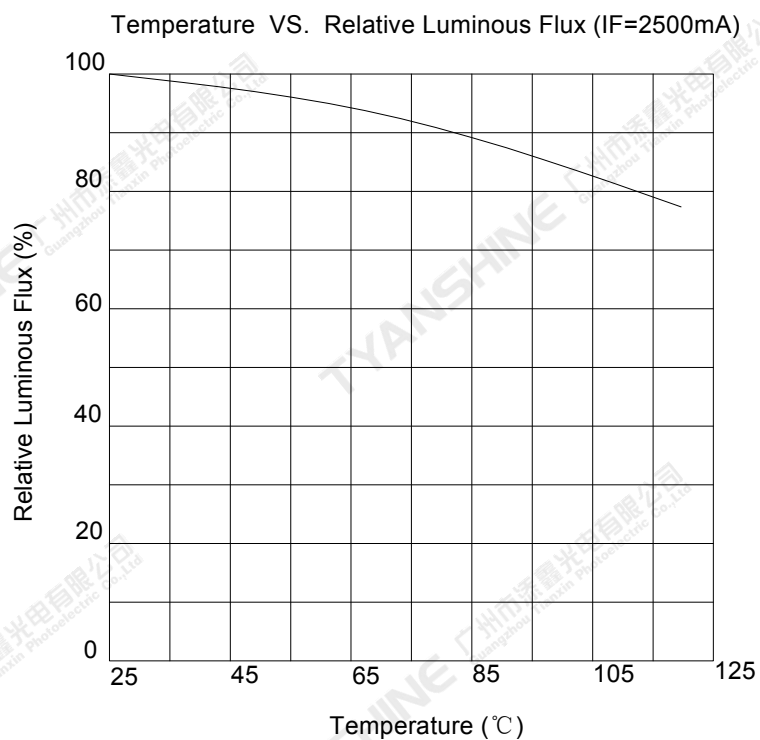
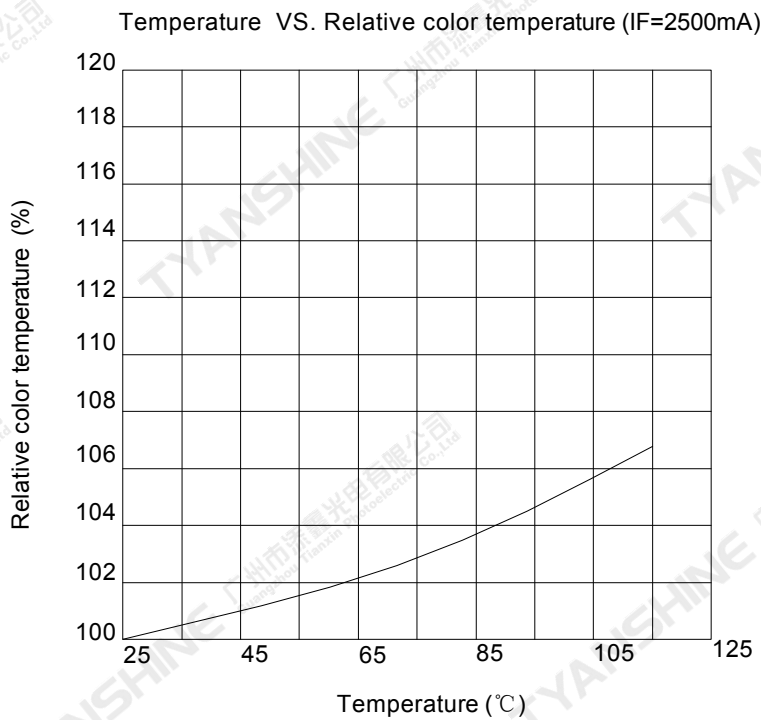
(25°C Ambient Temperature Unless Otherwise Noted)

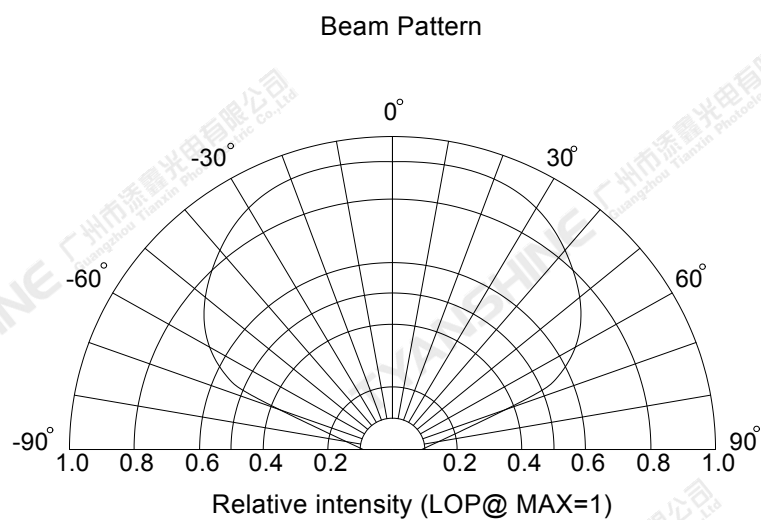
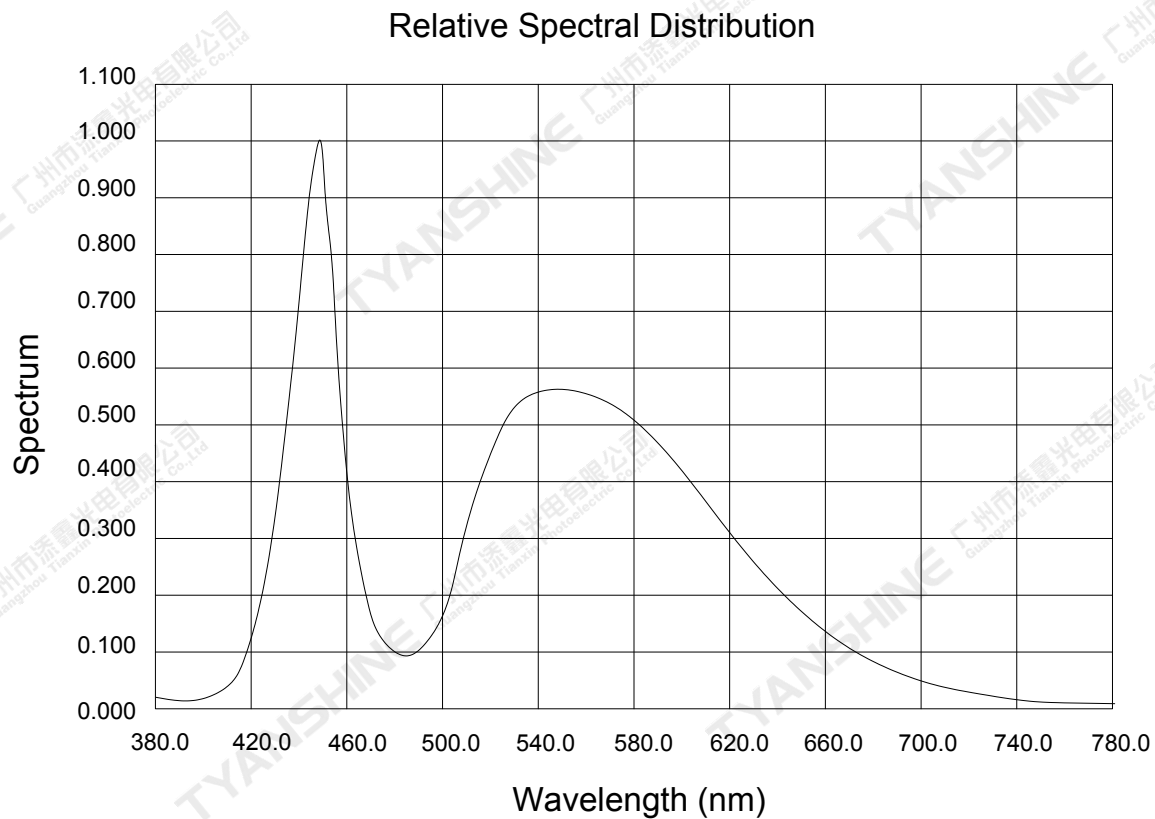
Forward Current VS. Forward Voltage



Forward Current VS. Luminous flux





**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  $\pm 5^\circ$ .

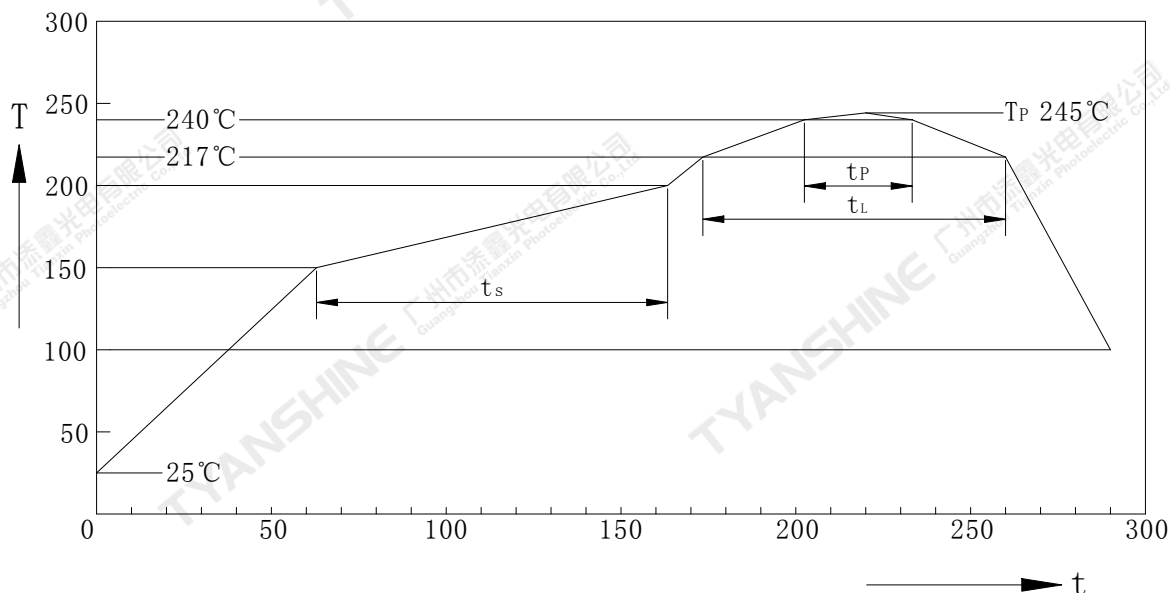
## Usage Precautions

### Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

### Soldering Condition



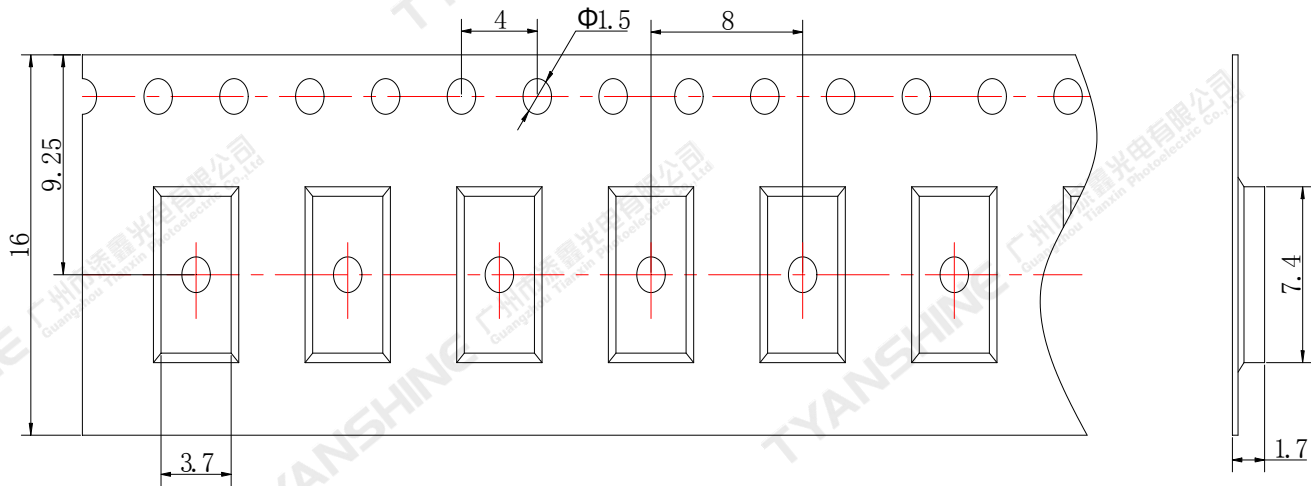
| Profil-Charakteristik<br>Profile Feature                                 | Symbol | Pb-Free(SnAgCu)Assembly |                |         | Einheit<br>Unit |
|--------------------------------------------------------------------------|--------|-------------------------|----------------|---------|-----------------|
|                                                                          |        | Minimum                 | Recommendation | Maximum |                 |
| Ramp-up Rate to Preheat<br>25°C to 150°C                                 | -      | -                       | 2              | 3       | K/s             |
| Time ts T <sub>Smin</sub> to T <sub>Smax</sub>                           | ts     | 60                      | 100            | 120     | s               |
| Ramp-up Rate to Peak T <sub>Smax</sub> to T <sub>p</sub>                 | -      | -                       | 2              | 3       | K/s             |
| Liquidus Temperature                                                     | TL     | 217                     |                |         | °C              |
| Time above Liquidus temperature                                          | tL     | -                       | 80             | 100     | s               |
| Peak Temperature                                                         | TP     | -                       | 245            | 260     | °C              |
| Time within 5°C of the specified peak<br>temperature T <sub>p</sub> -5 K | tp     | 10                      | 20             | 30      | s               |
| Ramp-down Rate T <sub>p</sub> to 100°C                                   | -      | -                       | 3              | 6       | K/s             |
| Time 25°C to T <sub>p</sub>                                              | -      | -                       | -              | 480     | -               |

#### 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  $\pm 2.0$  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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