

# SPECIFICATION

## 产品规格书

NO. (编号): \_\_\_\_\_

Part No.(型号): 9.3535UVCAU1WX2FL-QU

Description(描述): 3535 陶瓷紫外

Version NO.(版本): A0

Date(日期): \_\_\_\_\_



| Customer Approved<br>(客户审核)          |                  | Approved<br>(确认)                                        |  |
|--------------------------------------|------------------|---------------------------------------------------------|--|
|                                      |                  |                                                         |  |
| Xuyu Approved<br>(旭宇审核)              | Approved<br>(确认) | Issued<br>(制定)                                          |  |
|                                      |                  |                                                         |  |
| <input type="checkbox"/> Sample (样品) |                  | <input checked="" type="checkbox"/> Mass Product (量产供货) |  |



**RoHS**  
compliant



LED light source  
maintenance test  
**ENERGYSTAR**



**蓝光危害认证**  
EN62471/IEC TR 62778

Address: A1 Building, Sunshine Industrial Park, Hezhou, Xixiang, Bao'an District Shenzhen City, Guangdong Province

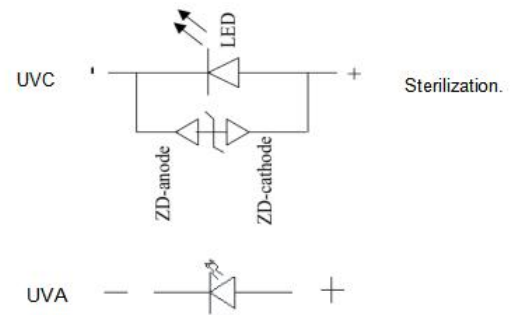
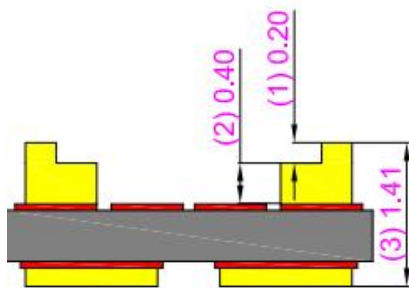
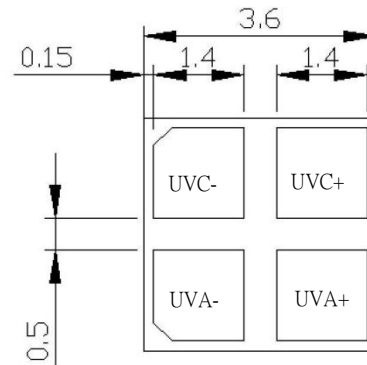
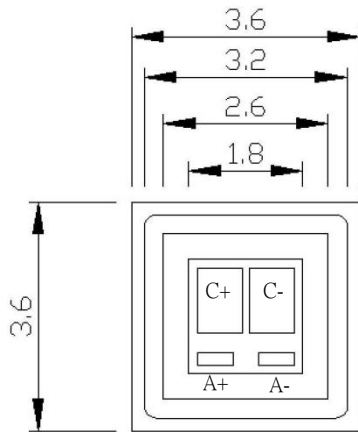
地址: 广东省深圳市宝安区西乡鹤洲阳光工业区A1栋

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## ◆ Package Dimensions 产品外观尺寸



### Notes:

1. All dimensions are in mm 所有尺寸单位为毫米。
2. Tolerance is  $\pm 0.2$  mm unless otherwise noted. 非特殊标注，公差为  $\pm 0.2$  毫米。

## UVA

### ◆ Absolute Maximum Ratings 最大额定值 (Ta=25°C)

| Parameter<br>(参数)                  | Symbol<br>(符号)   | Value<br>(值)         | Unit<br>(单位) |
|------------------------------------|------------------|----------------------|--------------|
| Power Dissipation 额定功率             | P                | 0.06                 | W            |
| Forward Current 正向电流               | I <sub>F</sub>   | 20                   | mA           |
| Maximum Current 最大电流               | I <sub>F</sub>   | 60                   | mA           |
| Thermal Resistance 热阻              | R <sub>th</sub>  | 15                   | °C/W         |
| Operating Temperature Range 工作温度范围 | T <sub>opr</sub> | -40 to +60           | °C           |
| Storage Temperature Range 储存温度范围   | T <sub>stg</sub> | -40 to +100          | °C           |
| Soldering Temperature 回流温度         | T <sub>sld</sub> | 230°C for 10 seconds |              |

### ◆ Initial Electrical/Optical Characteristics 初始光电特性 (Ta=25°C) I<sub>F</sub>=20mA

| Parameter<br>参数         | Symbol<br>符号   | Min<br>最小值 | Typ<br>典型值 | Max<br>最大值 | Unit<br>单位 |
|-------------------------|----------------|------------|------------|------------|------------|
| Peak Wavelength 峰值波长    | λ <sub>p</sub> | 395        | ---        | 405        | nm         |
| Radiant Flux 辐射通量       | Φ <sub>e</sub> | 20         | ---        | 40         | mW         |
| Forward Voltage 正向电压    | V <sub>F</sub> | 3          | ---        | 3.4        | V          |
| Spectra half-width 光谱半宽 | Δλ             | ---        | 15         | ---        | nm         |
| Junction Temperature 结温 | T <sub>J</sub> | ---        | ---        | 100        | °C         |

#### Notes:

- Forward voltage measurement allowance is ±0.2 V. 正向电压测量误差±0.2V。
- Radiant flux measurement allowance is ±10%. 辐射通量测量误差为±10%。
- Irradiance tested at a distance 10mm from Al reflector. 在距离铝反射器 10mm 处测试辐射照度。
- Wavelength measurement allowance is ±3nm. 波长测量误差±3nm。

## UVC

### ◆ Absolute Maximum Ratings 最大额定值 (Ta=25°C)

| Parameter<br>(参数)                  | Symbol<br>(符号)   | Value<br>(值)         | Unit<br>(单位) |
|------------------------------------|------------------|----------------------|--------------|
| Power Dissipation 额定功率             | P                | 1                    | W            |
| Forward Current 正向电流               | I <sub>F</sub>   | 100                  | mA           |
| Maximum Current 最大电流               | I <sub>F</sub>   | 130                  | mA           |
| Thermal Resistance 热阻              | R <sub>th</sub>  | 15                   | °C/W         |
| Operating Temperature Range 工作温度范围 | T <sub>opr</sub> | -40 to +60           | °C           |
| Storage Temperature Range 储存温度范围   | T <sub>stg</sub> | -40 to +100          | °C           |
| Soldering Temperature 回流温度         | T <sub>sld</sub> | 230°C for 10 seconds |              |

### ◆ Initial Electrical/Optical Characteristics 初始光电特性 (Ta=25°C) I<sub>F</sub>=100mA

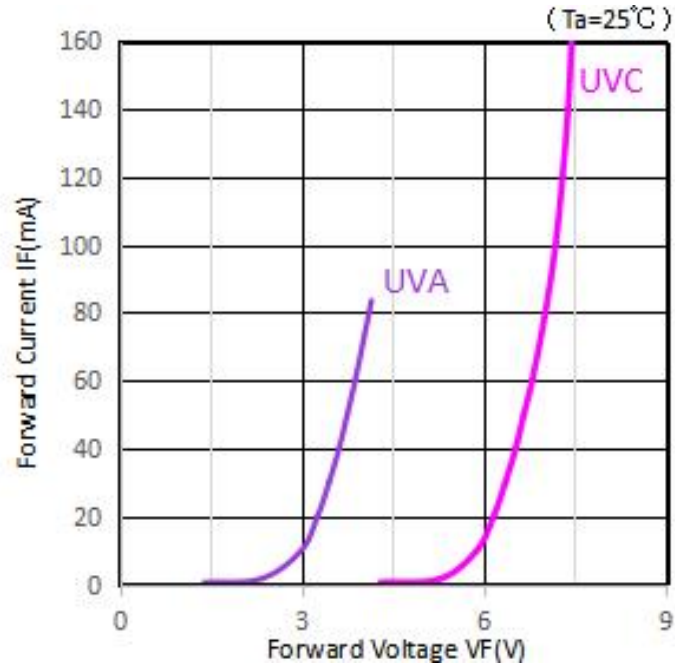
| Parameter<br>参数         | Symbol<br>符号   | Min<br>最小值 | Typ<br>典型值 | Max<br>最大值 | Unit<br>单位 |
|-------------------------|----------------|------------|------------|------------|------------|
| Peak Wavelength 峰值波长    | λ <sub>p</sub> | 265        | 275        | 285        | nm         |
| Radiant Flux 辐射通量       | Φ <sub>e</sub> | 8          | ---        | 12         | mW         |
|                         |                | 12         | ---        | 20         | mW         |
| Forward Voltage 正向电压    | V <sub>F</sub> | 5          | ---        | 10         | V          |
| Spectra half-width 光谱半宽 | Δ λ            | ---        | 15         | ---        | nm         |
| Junction Temperature 结温 | T <sub>J</sub> | ---        | 60         | 80         | °C         |

#### Notes:

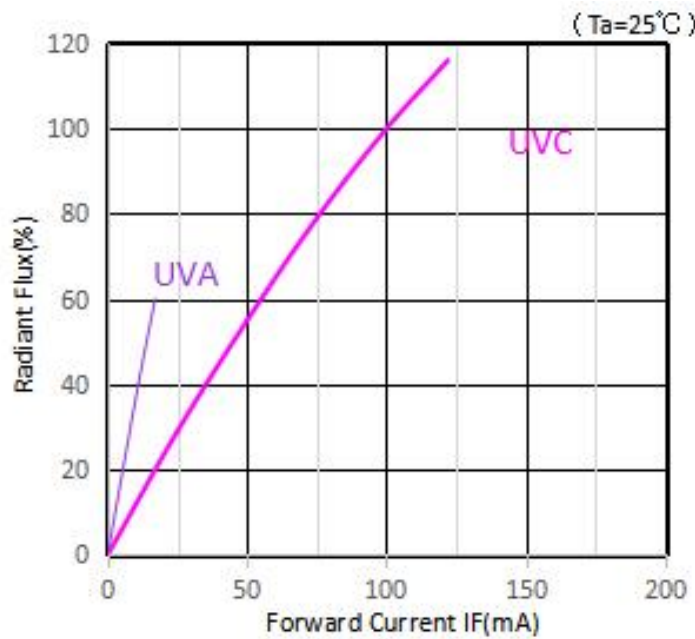
- Forward voltage measurement allowance is ±0.2 V. 正向电压测量误差±0.2V。
- Radiant flux measurement allowance is ±10%. 辐射通量测量误差为±10%。
- Irradiance tested at a distance 10mm from Al reflector. 在距离铝反射器 10mm 处测试辐射照度。
- Wavelength measurement allowance is ±3nm. 波长测量误差±3nm。

## ◆ Typical Characteristic Curves 典型特性曲线

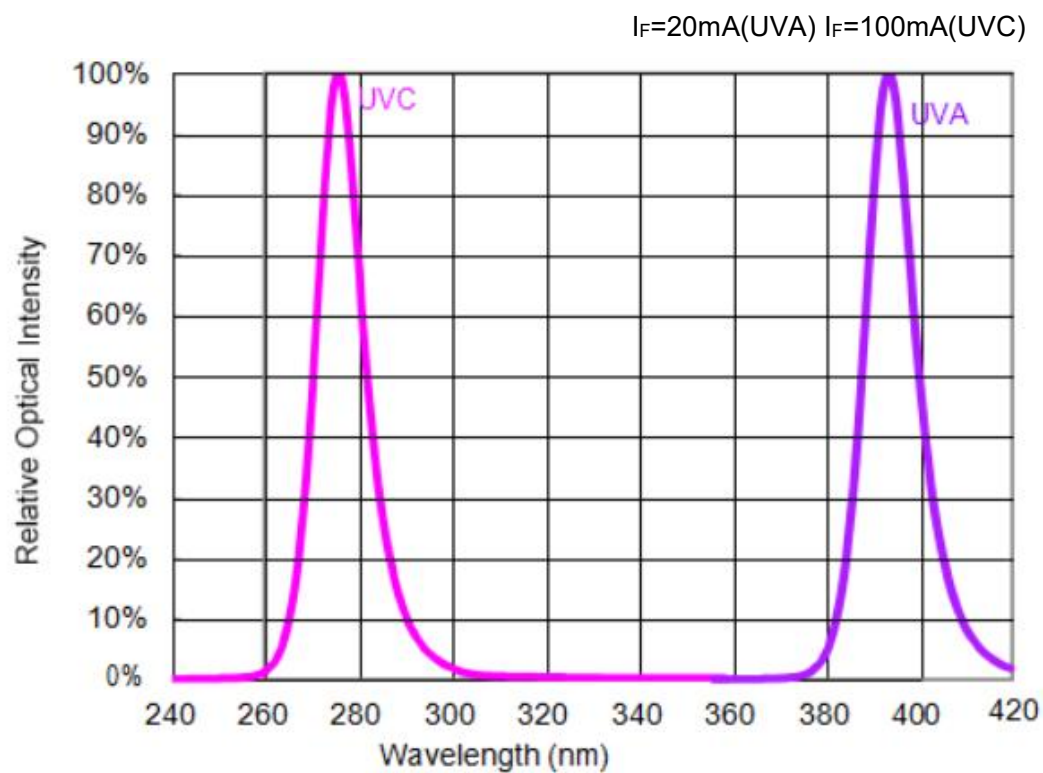
Forward Current VS Forward Voltage 伏安特性曲线



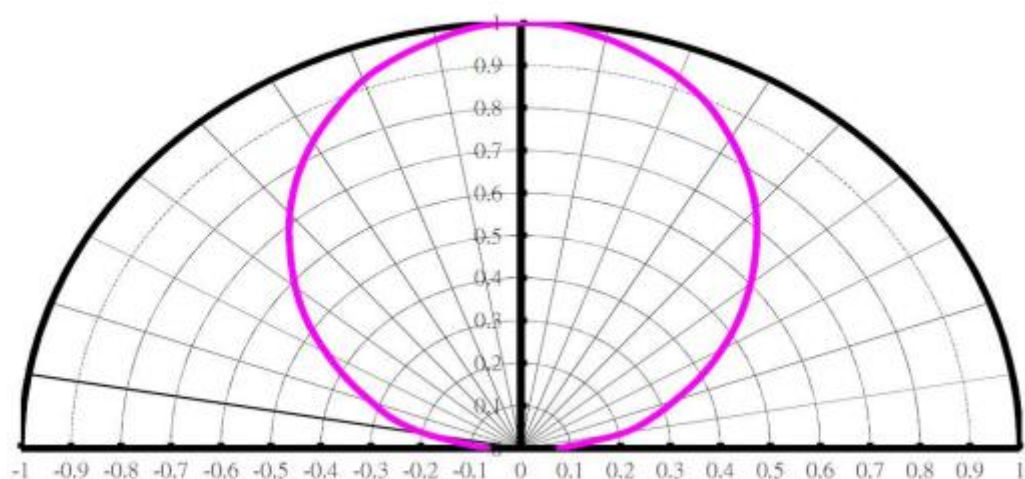
Radiant Flux VS Forward Current 辐射通量与正向电流



Spectral Power distribution 光谱能量分布图

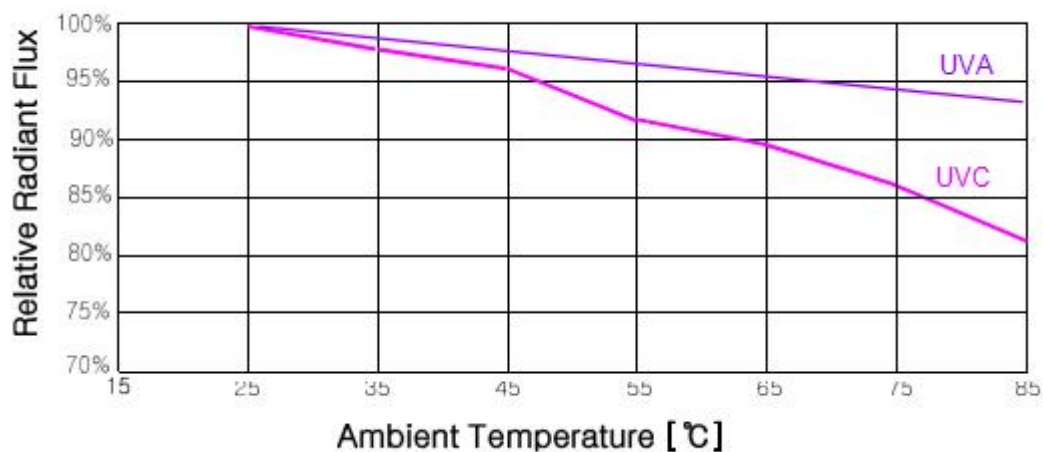


Typical Radiation Angle 典型辐射角度



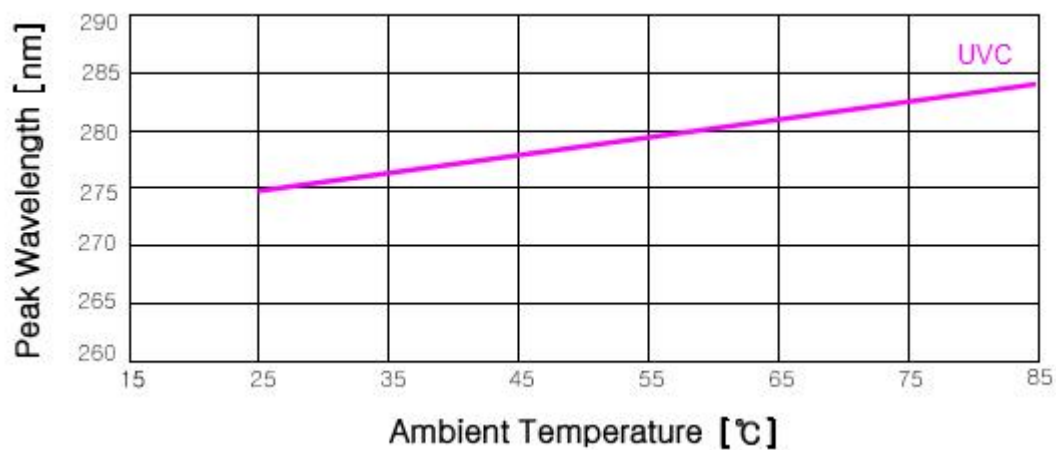
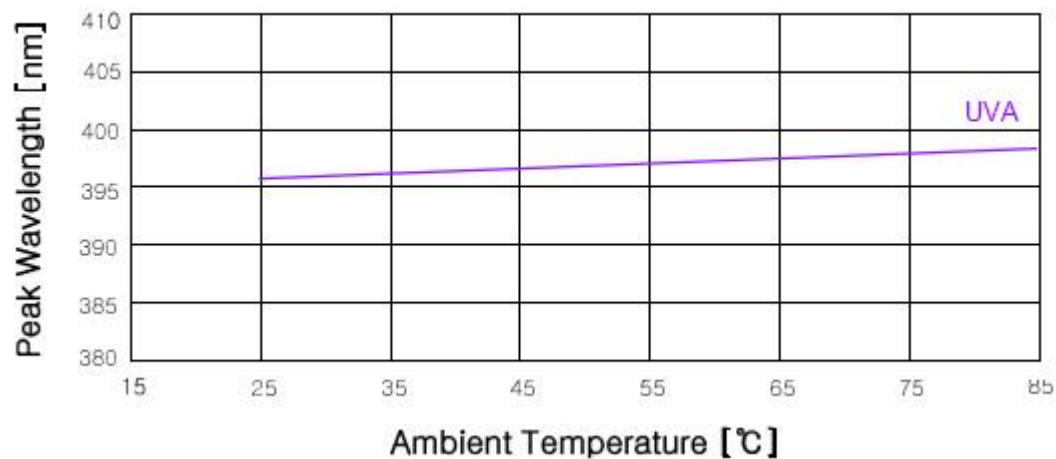
## Relative Radiant Flux VS Ambient Temperature 相对辐射通量与环境温度

$I_F=20\text{mA(UVA)}$   $I_F=100\text{mA(UVC)}$



## Peak Wavelength VS Ambient temperature 峰值波长与环境温度

$I_F=20\text{mA(UVA)}$   $I_F=100\text{mA(UVC)}$



Label(标签):

Part NO: Product model 产品型号

LOT NO: Instruction number 指令单号

Spec NO: product 产品规格

Date: Date 日期

Bin No.: Class-Bin No.-Wavelength code 班别-Bin 号-波段代码

Q' ty: Quantity 数量

IF (mA) : Forward current 正向电流

VF (V) : Forward voltage 正向电压

$\Phi$  (mW) : Radiant flux 辐射通量

$\lambda_p$  (nm): Peak Wavelength 峰值波长

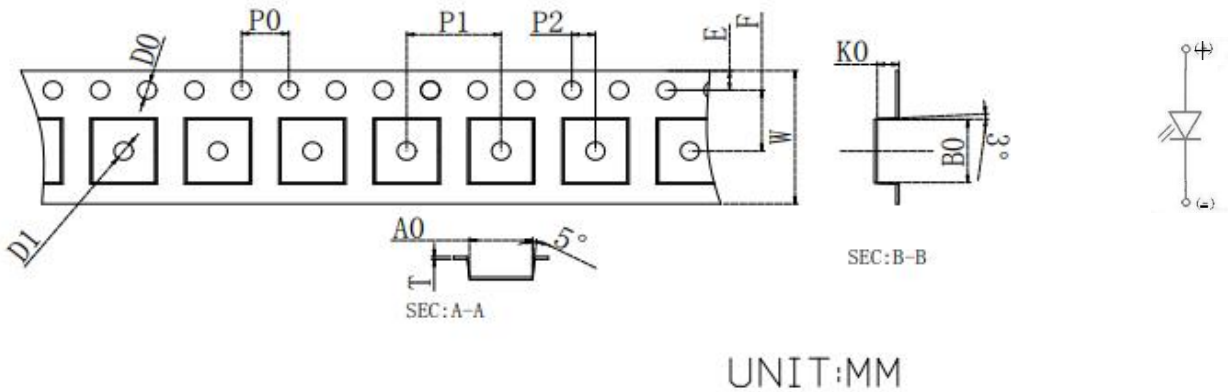
| 旭宇光电 (深圳) 股份有限公司                          |           |
|-------------------------------------------|-----------|
| XUYU OPTOELECTRONICS (SHENZHEN) CO., LTD. |           |
| Part No. :                                | Lot No. : |
| Spec No. :                                | Date. :   |
| Bin No. :                                 | Qty. :    |
| IF(mA) :                                  |           |
| VF(V)                                     | Min Max   |
| $\Phi$ (mW)                               |           |
| $\lambda_p$ (nm)                          |           |





◆ Shipping package style 运输包装方式

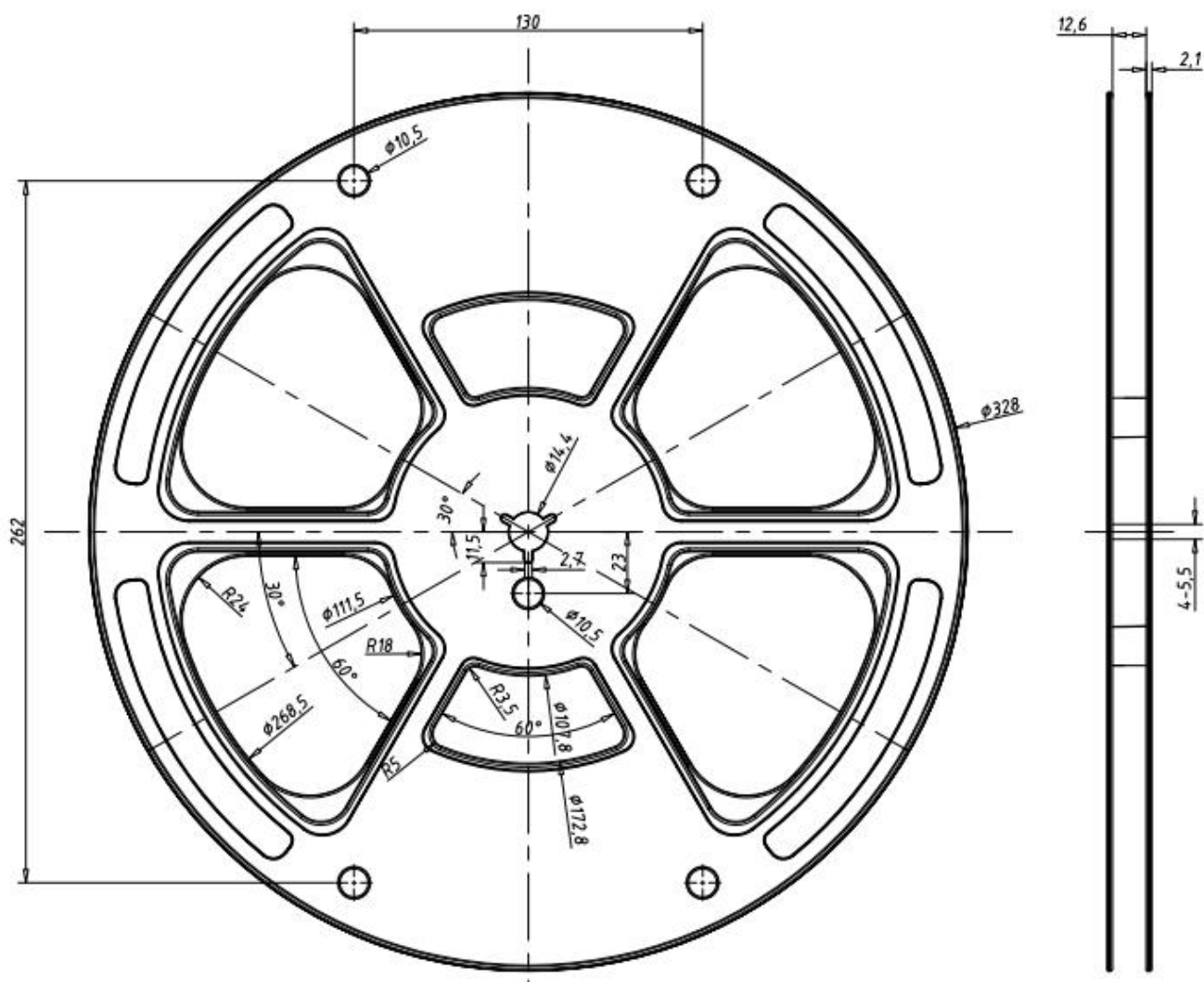
Tapping dimension package specification 尺寸包装规范



|    |            |    |           |    |           |    |          |
|----|------------|----|-----------|----|-----------|----|----------|
| W  | 12.00±0.10 | T  | 0.20±0.02 | D1 | 1.60±0.10 | 单位 | MM       |
| E  | 1.75±0.10  | F  | 5.50±0.10 | D0 | 1.60±0.10 | 材质 | PC       |
| P0 | 4.00±0.10  | P1 | 8.00±0.10 | P2 | 2.00±0.10 | 品名 | 3535-2.2 |
| A0 | 3.75±0.10  | B0 | 3.70±0.10 | K0 | 2.20±0.10 |    |          |

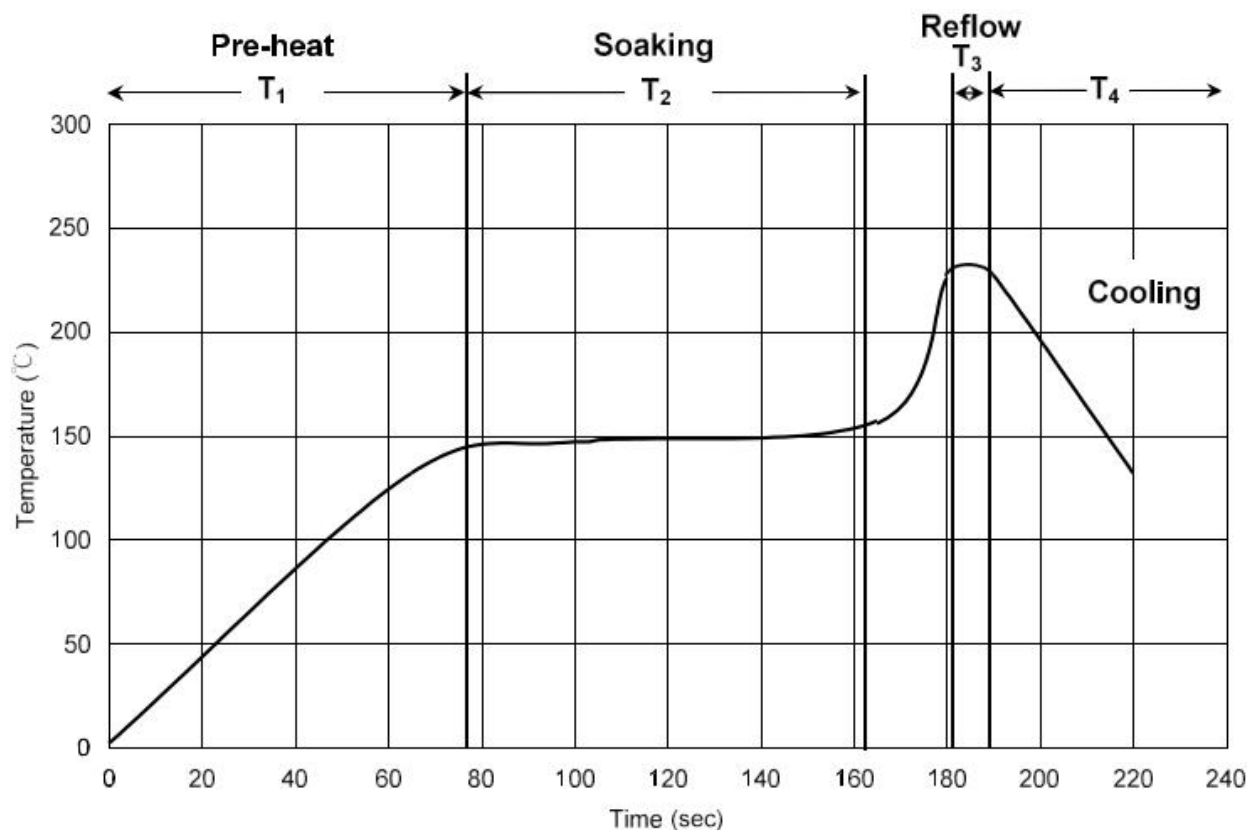
## Reel packaging 卷盘包装

**Maximum quantity 3K 最大数量 3K**



## ◆ SMT Reflow Soldering Instructions SMT 回流焊说明

Soldering recommend soldering conditions 焊接推荐条件



|    |                                       |                 |
|----|---------------------------------------|-----------------|
| T1 | Ramp up rate 上升速率                     | 1.0-3.0 °C/ sec |
|    | Pre-heat time 预热时间                    | 50-80 sec       |
| T2 | Soaking temperature 焊接温度              | 155-185°C       |
|    | Dwell time during soaking 焊接停留时间      | 60-120 sec      |
| T3 | Reflow temperature 回流温度               | 220~230°C       |
|    | Reflow time 回流时间                      | Max 10 sec      |
|    | Ramp up rate during reflow 回流过程中的上升速率 | 1.2-2.3 °C/ sec |
| T4 | Cooling rate 冷却速率                     | 1.0-6.0 °C/ sec |

Note: Suggest using Sn<sub>96</sub>Ag<sub>3</sub>Cu<sub>0.5</sub> lead free solder 注: 建议使用 Sn<sub>96</sub>Ag<sub>3</sub>Cu<sub>0.5</sub> 无铅焊料  
Use alcohol cleaning solvents such as isopropyl alcohol to clean the LED if necessary 如有必要, 使用酒精清洁 LED

## ◆ Cautions on Use 使用注意事项

The product must be handled with care, it is strictly forbidden to fall, and it is strictly forbidden to touch the product, especially the light-emitting surface of the lamp.

产品须轻拿轻放，严禁跌落、严禁锐器接触产品特别是灯珠出光面。

Do not use a power supply that does not meet the requirements for driving.

请勿使用不符合要求的电源进行驱动。

The product should not be lit for a long time in a high temperature and closed environment in an environment within the rated temperature range.

产品应用于额定温度范围内的环境中，不得在高温密闭环境中长时间点亮。

Do not expose the LED directly to high humidity. It should be waterproof and moisture-proof.

请勿将 LED 直接裸露在高湿环境下，应做好防水防湿隔离处理。

The light-transmissive window on the light-emitting side of the product should be made of high-purity quartz glass plate, which can effectively pass 270~285 nm ultraviolet light.

产品出光侧的透光窗口应使用高纯石英玻璃板，可有效透过 270~285 nm 紫外线。

Reflow soldering should not be done more than two times. Please refer to the instruction manual for reflow temperature

回流焊不能超过 2 次，回流焊温度请参考使用说明书。

This product produces deep ultraviolet rays when energized. This kind of ultraviolet light can cause damage to human skin and eyes, and should be avoided without direct protection. The human body is directly exposed to deep ultraviolet rays.

本产品通电后会产生深紫外线。这种紫外线对人的皮肤及眼睛会造成伤害，应避免未加防护措施人体直接暴露在深紫外线中。

It is strictly forbidden to look directly at the deep ultraviolet light emitted by this product.

任何时候严禁裸眼直视本产品发射出的深紫外线。

The machine operator must bring an electrostatic ring.

所有接触产品人员务必戴静电手环。

The machine must be grounded.

务必操作机台接地线

