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# 产品规格书 (SPECIFICATION)

CUSTOMER(客户): \_\_\_\_\_

PRODUCT NUMBER (产品型号): 3W45mil purple light

DESCRIPTION(产品描述): \_\_\_\_\_

ORDER DATE(送样日期): 2021/07/17



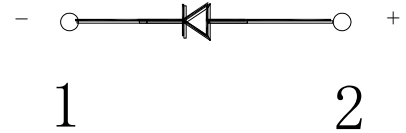
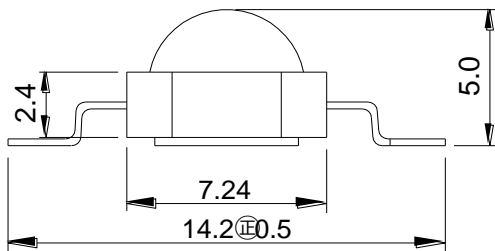
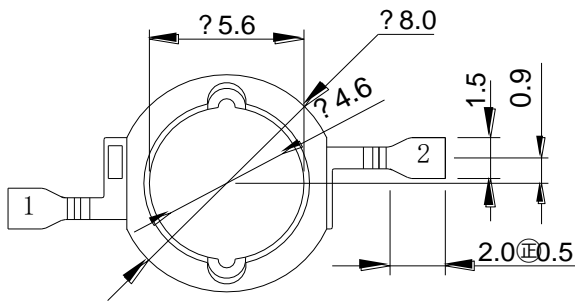
|    |             |
|----|-------------|
| 制表 | 李强          |
| 审核 |             |
| 核准 |             |
| 日期 | 2021/07/017 |



※ Description of packaging materials

| Item                 | Material specification          |
|----------------------|---------------------------------|
| Chip material        | GaN/InGaN                       |
| Phosphor material    | YAG                             |
| Packaging material   | Silicone                        |
| Bracket pin material | Copper alloy coated with silver |
| Plastic stent        | Polyphthalamide                 |

※ Size specification marking:



Note: The size unit is mm, and the size difference range is ±0.25mm

※ Photoelectric parameters (TA=25°C):

| Parameter       | Symbol          | Min. | Medium | Max. | Unit | Conditions |
|-----------------|-----------------|------|--------|------|------|------------|
| Forward voltage | $V_F$           | 3.2  | 3.4    | 3.6  | V    | IF= 650mA  |
| Luminous flux   | $\phi_V$        | 40   | /      | 45   | LM   |            |
| Related band    | TC              | 395  | /      | 405  | NM   |            |
| Light Angle     | $2\theta^{1/2}$ | -    | 140    | -    | deg  |            |
| Reverse current | IR              | 0    |        | 5    | uA   | VR=5 V     |

Remark:  $1.2\theta_{1/2}$  Referring to the Angle between the direction where the luminescence intensity value is half of the axial intensity value and the luminescence axial direction (normal), called  $\theta_{1/2}$ , 2 times  $\theta_{1/2}$  is the Angle of view (or half-power Angle).

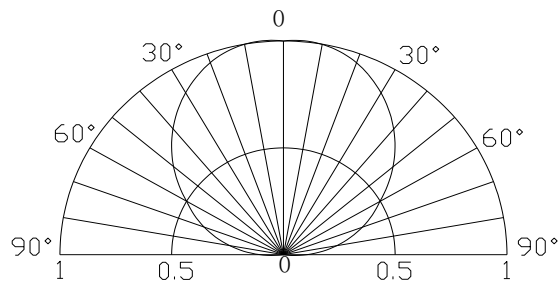
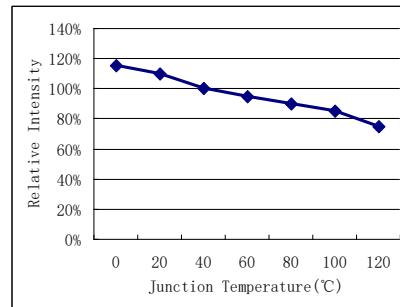
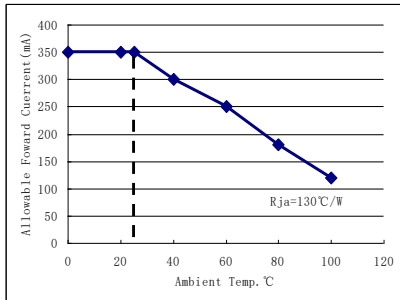
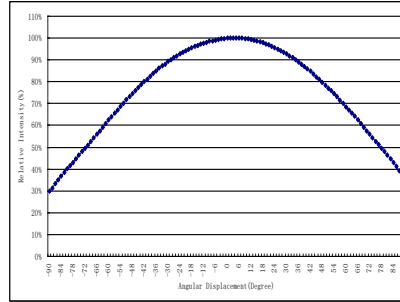
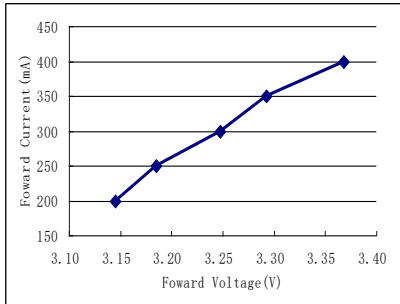
※ Limit parameter (TA=25°C)

| Item  | Symbol    | Parameter | Unit |
|---|-----------|-----------|------|
| Drive current                                 | $I_F$     | 700       | mA   |
| Power   | $P_D$     | 3         | W    |
| Junction temperature                          | $T_j$     | 125       | °C   |
| High temperature lenses withstand temperature | $T_{opr}$ | 220       | °C   |
| Operating temperature range                   | $T_{opr}$ | -30~+85   | °C   |
| Storage temperature range                     | $T_{stg}$ | -40~+100  | °C   |

Remark:

1. Luminous intensity error  $\pm 10\%$
2. Forward voltage error  $\pm 0.1V$
3. CIE color coordinate test error  $\pm 0.005$

✂ Photoelectric characteristic curve (IF= 700 mA) (TA=25°C):



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※Usage instructions and parameters:

| Item                               | Parameter description  |
|------------------------------------|--|
| Aluminum heat sink                 | The heat dissipation surface area must be large enough to ensure that the temperature of the aluminum substrate does not exceed 60°C |
| Antistatic force                   | The human body model 2.4V  |
| Soldering iron welding temperature | 300°C In less than 3 seconds   |
| Reflow soldering temperature       | 180±5°C (Maximum temperature zone temperature, maximum temperature zone welding time 3-6 seconds)                                    |
| Temperature                        | Storage temperature -30°C~85°C   |
| Humidity                           | 10%~90%  |
| Corrosion resistance               | Stronger   |
| Waterproof level                   | IP30   |

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## ※ Precautions for product use

### Condition:

The operating conditions must be within the rated parameters.

### Installation:

When installing lamps and lanterns, do not burn the luminous layer of the product with a high temperature iron to avoid dead lights or affect the luminous effect.

### Static electricity:

Static electricity or surge voltage can disable the product. It is recommended that you wear an ESD wrist strap or ESD gloves when using the product. All devices, devices, and machines must be grounded. Precautions are recommended to prevent the surge voltage generated by the device from acting on the product. When assemble into finished products inspection by a single product, test each product is destroyed by static electricity, examination may be held by a lamp test or in electricity shed is to the test voltage (current 90 ma, the most suitable), has been damaged products show is different from normal product features, such as forward voltage becomes lower down or in a small electric light.

### Heat:

Heat dissipation design of terminal products is particularly important. Please consider the heat dissipation of the product. When designing the system, the increase of the temperature coefficient of the product with electrical power input is determined by the thermal resistance of the circuit board and the density of

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**the product on the circuit board and its original components. Therefore, it is necessary to avoid a large amount of centralized heat dissipation and strictly follow the parameters given in the specifications. Please decide to consider the current ambient temperature before using the current through each product and refer to the ambient temperature on the specification book vs. Forward current characteristics are allowed, while measures are taken to improve the operational characteristics of the product by dissipating heat around the product heat sink.**