

SAMPLE APPROVAL SHEET

DESCRIPTIONS:

- 1.6x0.8x0.43mm SMD LED
- Emitting Color:Blue
- Lens Color: Water Clear

CUSTOMER: _____

XINYI P/N:CT0603UB

CUSTOMER P/N: _____

CUSTOMER APPROVED SIGNATURES

| APPROVRD BY | CHECKED BY |
|-------------|------------|
| | |

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PRELIMINARY SPEC

1.6x0.8X0.43mm SMD CHIP LED

PART NO: CT0603UB

BLUE



ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC DISCHARGE
SENSITIVE DEVICES

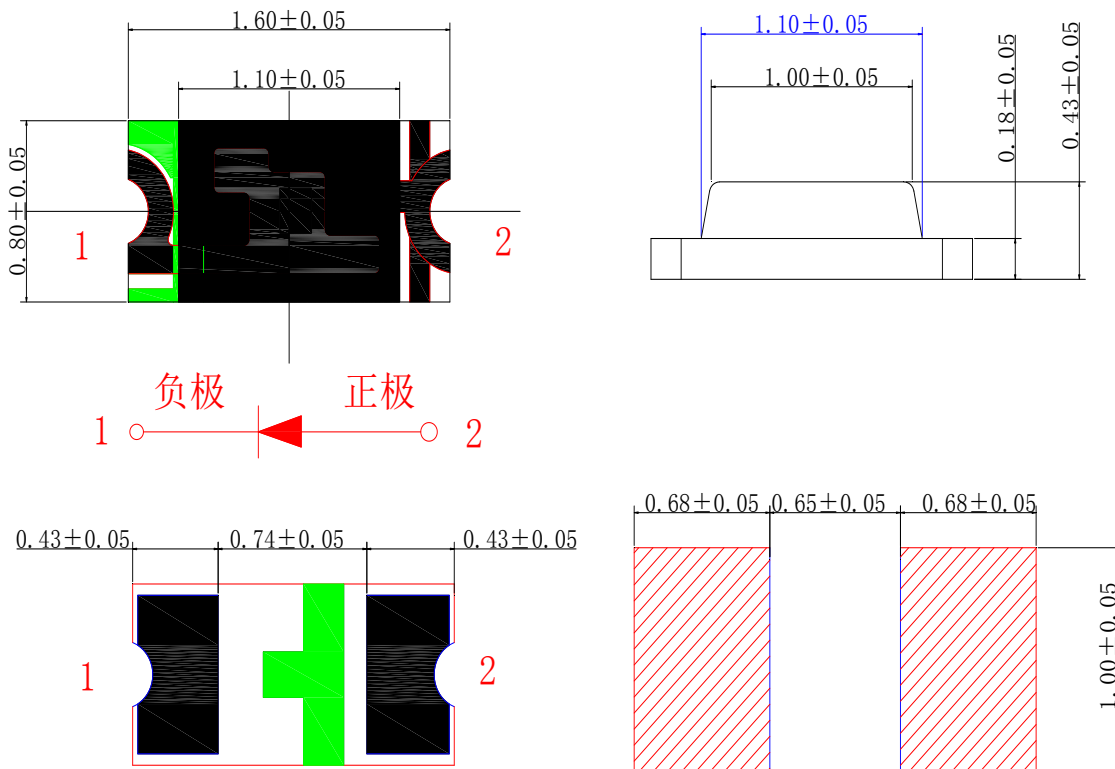
Features

- 1.6mmx0.8mm SMT LED, 0.43mm THICKNESS.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE : 4000PCS / REEL.
- RoHS COMPLIANT.

Applications

- Automotive: backlighting in dashboard and switch.
- Telecommunication: indicator and back-lighting in telephone and fax.
- Flat backlight for LCD switch and symbol.

◆ Package Dimensions



Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.15 unless otherwise noted.
3. Specifications are subject to change without notice.

地址：广西梧州市工业园二路6号

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◆ Device Selection Guide

| Part No. | Chip | | Lens color |
|----------|----------|---------------|-------------|
| CT0603UB | Material | Emitted color | Water Clear |
| | (InGaN) | Blue | |

◆ Absolute Maximum Ratings at TA=25°C

| Parameter | Symbol | Value | Unit |
|------------------------------|--------|-------------------|------|
| Power Dissipation | PD | 100 | mW |
| Forward Current | IF | 20 | mA |
| Peak Forward Current*1 | IFP | 100 | mA |
| Reverse Voltage | VR | 5 | V |
| Operating Temperature | Topr | -40°C To +85°C | |
| Storage Temperature | Tstg | -40°C To +85°C | |
| Reflow Soldering temperature | Tsol | 250±5(for10sec)°C | |
| Manual welding Temperature | Tsol | 300±5(for4sec)°C | |

Notes:

*1: Pulse width≤0.1ms, Duty cycle≤1/10

2: (Product is highest resistant to 265°C reflow but suggested the highest temperature of 250°C within) 产品最高可耐 265°C回流焊，但建议最高温度设为 250°C)

◆ Electrical / Optical Characteristics at TA=25°C

| Parameter | Symbol | Min | typ | Max | Unit | Test Conditions |
|--------------------------|--------|-----|-----|-----|------|-----------------|
| Forward Voltage | VF | 2.6 | — | 3.0 | V | IF=5mA |
| Reverse Current | IR | — | — | 10 | μA | VR=5V |
| Chromaticity Coordinates | WLD | — | 465 | — | | IF=5mA |
| Luminous Intensity | IV | 30 | — | 74 | mcd | IF=5mA |
| Viewing Angle | 2θ1/2 | — | 120 | — | Deg. | IF=5mA |

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or chromaticity), the typical accuracy of the sorting process is as follows:

1. Chromaticity Coordinates: ±0.01
2. Luminous Intensity: ±15%
3. Forward Voltage: ±0.1V

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◆ Typical Electrical/Optical Characteristics Curves

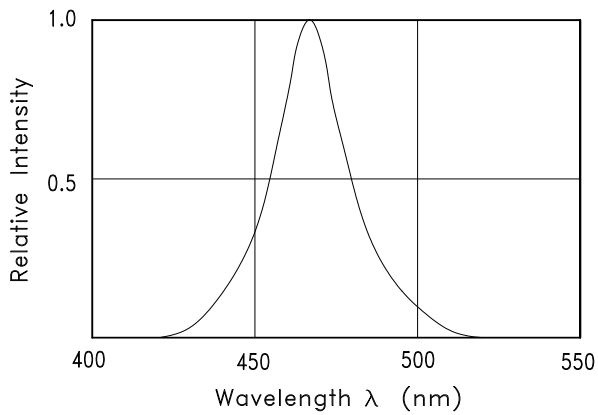


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

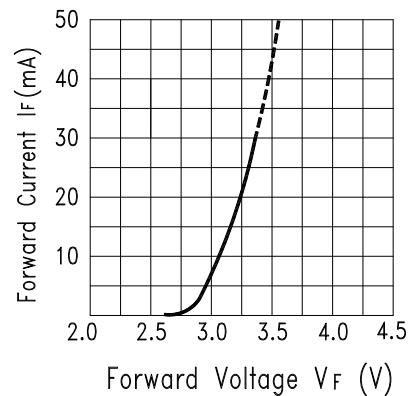


Fig.2 Forward Current vs. Forward Voltage

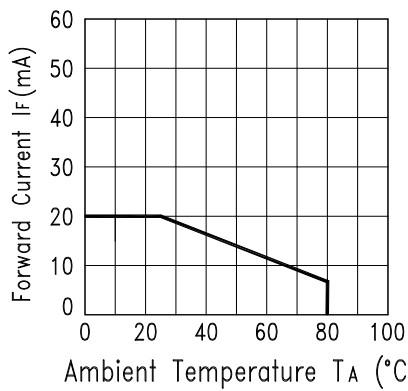


Fig.3 Forward Current Derating Curve

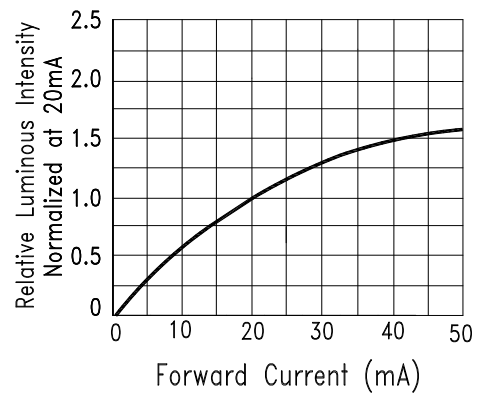


Fig.4 Relative Luminous Intensity vs. Forward Current

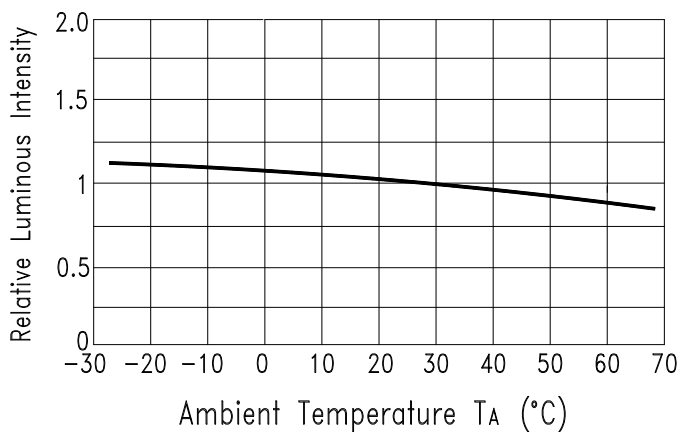


Fig.5 Luminous Intensity vs. Ambient Temperature

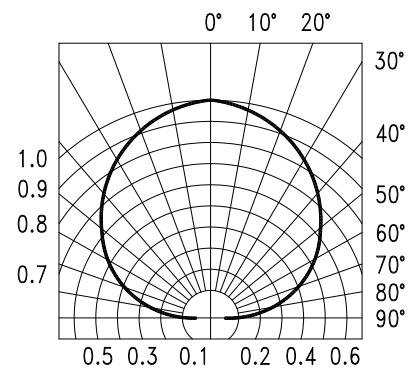
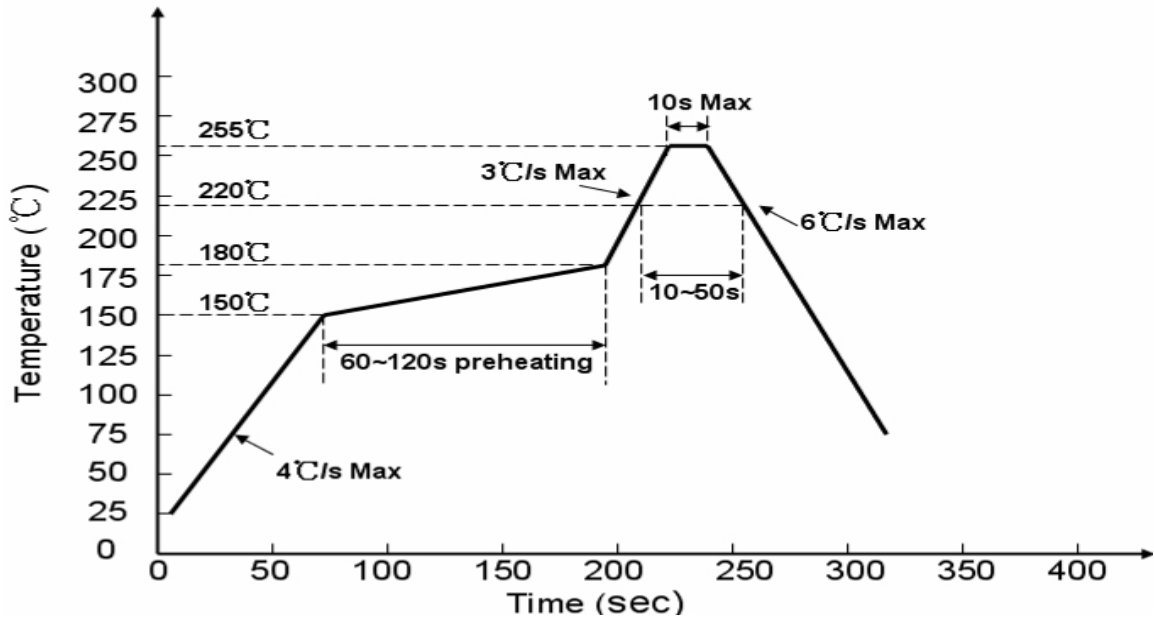


Fig.6 Spatial Distribution

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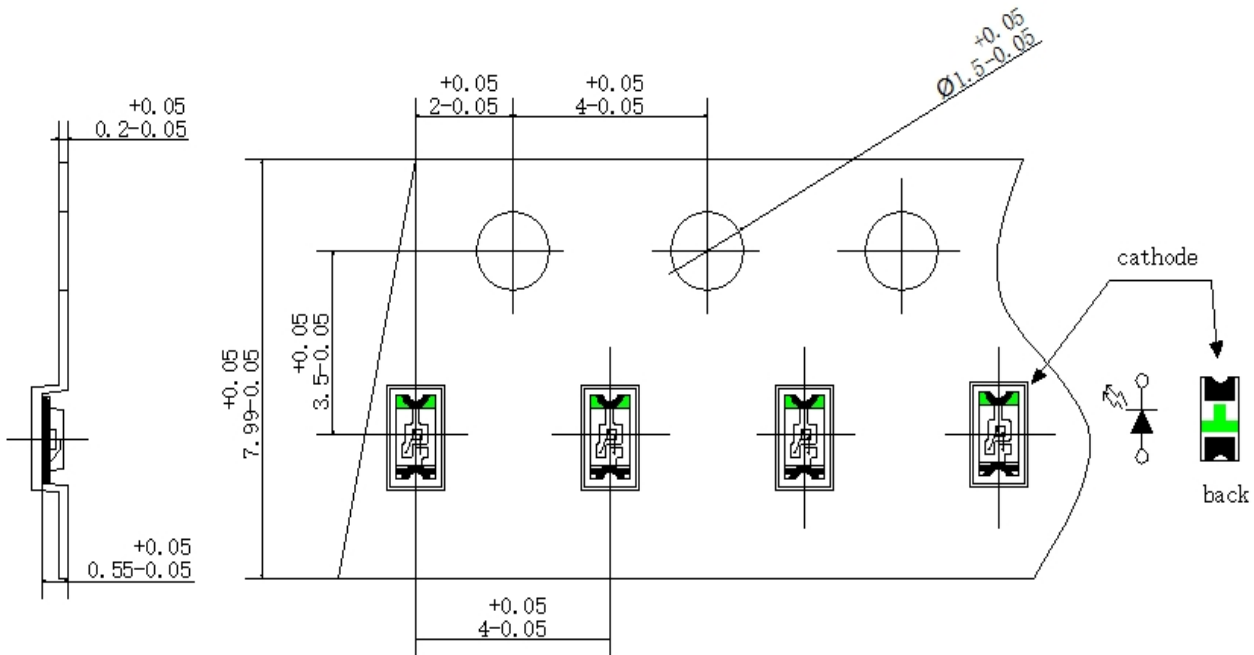
◆ Soldering Profile



Lead process

◆ Tape specifications

(Units:mm)



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◆ VF Rank

| Rank | VF | | Condition |
|---------|-----|-----|-----------|
| | MIN | MAX | |
| 2.7-2.8 | 2.7 | 2.8 | IF=5mA |
| 2.8-2.9 | 2.8 | 2.9 | |
| 2.9-3.0 | 2.9 | 3.0 | |
| 3.0-3.1 | 3.0 | 3.1 | |

Tolerance:±0.05V

◆ IV Rank

| Rank | IV | | Condition |
|-------|-----|-----|-----------|
| | MIN | MAX | |
| 30-36 | 30 | 43 | IF=5mA |
| 36-43 | 43 | 62 | |
| 62-74 | 62 | 89 | |

Tolerance:±15%

◆ WLD Rank

| Rank | WLD | | Condition |
|------------------|-------|-------|-----------|
| | MIN | MAX | |
| 457.5-460 | 457.5 | 460 | IF=5mA |
| 460-462.5 | 460 | 462.5 | |
| 462.5-465 | 462.5 | 465 | |
| 465-467.5 | 465 | 467.5 | |
| 467.5-470 | 467.5 | 470 | |
| 470-472.5 | 470 | 472.5 | |
| 472.5-475 | 472.5 | 475 | |

Tolerance:±1nm

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◆ Label Explanation :



XD:Customer Name↵
VF:Forward Voltage ↵
IV:Luminous intensity↵
WLD:Dom. Wavelength↵
LOT NO:Lot Number↵
QTY:Quantity↵
DATE: Production Date↵

◆ CAUTIONS:

1.Storage

- In order to avoid the absorption of moisture, it is recommended to store in the dry box (or desicca tor) with a desiccant. Otherwise, to store them in the following environment is recommended. Temperature: 5°C~30°C Humidity: 60%HR max.

- Attention after opened

However LED is corresponded SMD, when LED be soldered dip, interfacial separation may affect The light transmission efficiency, causing the light intensity to drop. Attention in followed. a. After opened and mounted, the soldering shall be quickly. b. Keeping of a fraction Temperature: 5°C~40°C Humidity: less than 30%

- In case or more than 1 week passed after opening or change color of indicator on desiccant compo nents shall be dried 10-12hr. at 60°C±3°C.

2.ESD (Electrostatic Discharge)

Static Electricity or power surge will damage the LED.

The following procedures may decrease the possibility of ESD damage.

- All production machinery and test instruments must be electrically grounded.
- Use a conductive wrist band or anti-electrostatic glove when handling these LEDs.
- Maintain a humidity level of 50% or higher in production areas.
- Use anti-static packaging for transport and storage.

3.Please be careful when using in an environment with high concentrations of sulphur or sulphuric gases,as sulphuration can lead to disconnection from the chip resistor or a poor contact connection.