

深圳市鸿亿光电有限公司

电话：0755-29630366

传真：0755-29636819

產品規格書

PRODUCT SPECIFICATION

客戶名稱

Customer

客戶料號

Part No.

版本號

VersionNo.

A1

品名

Description

0603紫灯/06

規格

Model

送樣日期

Date

承認蓋章後請寄回承認書一份

Please return to us one copy of "SPECIFICATION FOR APPROVAL"

With your approved signatures

| 客戶承認簽章 | 核准 | 制訂者 |
|------------------------------|----------|--------|
| CUSTOMER APPROVED SIGNATURES | APPROVED | ISSUED |
| | | |

Technical Data Sheet

Model NO: 0603紫灯/06

Package(1.6*0.8mm)LED

Feature:

- Low power consumption
- High performance
- P/b free

Applications:

- Indicators
- Backlighting for electronic devices
- General use



| Dice material | Emitted color | Lens Color |
|---------------|---------------|-------------|
| InGaN | Blue | Water Clear |

Electrical/Optical Characteristics(Ta=25°C)

| Parameter | Symbol | Condition | Min | Typ. | Max | Unit |
|--------------------------|----------------|--------------------|-----|------|-----|---------|
| Luminous Intensity | Iv | IF=20mA | 80 | 100 | | mcd |
| Dominant Wavelength | λ_D | IF=20mA | 395 | 400 | 405 | nm |
| Peak Emission Wavelength | λ_p | IF=20mA | | 400 | | nm |
| Viewing Angle | 2 θ 1/2 | IF=20mA | | 120 | | Deg |
| Forward Voltage | V _F | IF=20mA | 2.8 | 3.2 | 3.5 | V |
| Reverse Current | I _R | V _R =5V | | | 10 | μ A |

Note: Luminous intensity tolerance $\pm 15\%$

Forward voltage tolerance ± 0.1 v

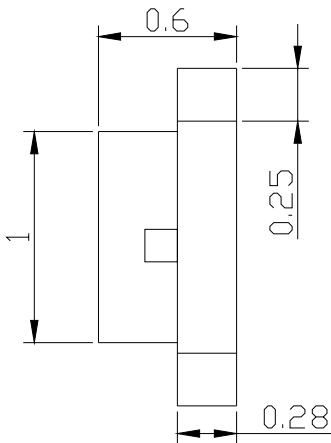
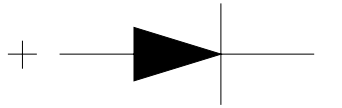
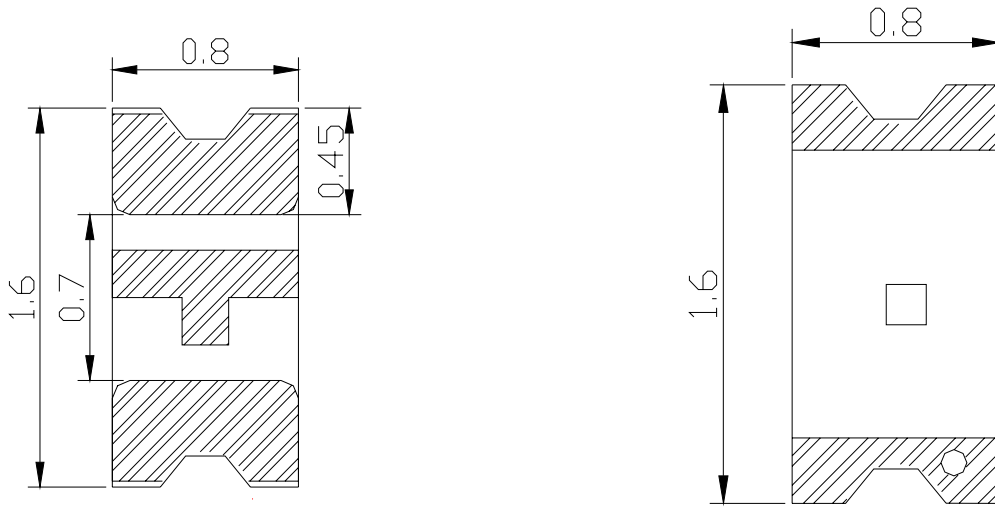
Wavelength tolerance ± 1 nm (WD)

CIE (X.Y) tolerance ± 0.01 (CIE)

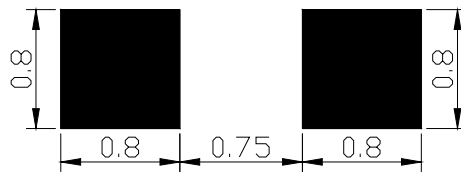
Absolute Maximum Ratings(Ta=25°C)

| Parameter | Symbol | Maximum | Unit |
|---|-----------------------|-------------|-------|
| Power Dissipation | P _d | 80 | mW |
| Peak Forward Current(1/10 Duty Cycle 0.1ms Pulse Width) | I _F (Peak) | 60 | mA |
| Continuous Forward Current | I _F | 30 | mA |
| Reverse Voltage | V _R | 5 | V |
| Derivation Linear From 25°C | | 0.3 | mA/°C |
| Operating Temperature Range | T _{opr} | -30 to +85 | °C |
| Storage Temperature Range | T _{stg} | -40 to +100 | °C |

Package Outline Dimensions:



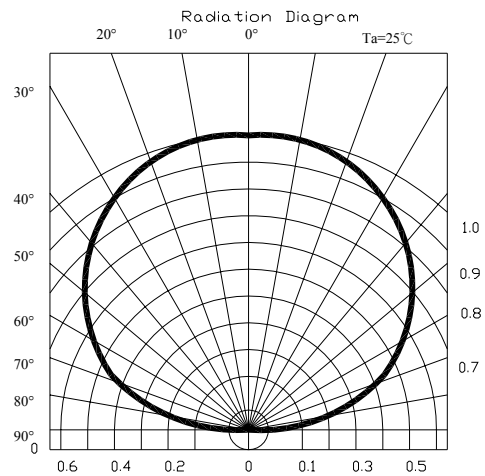
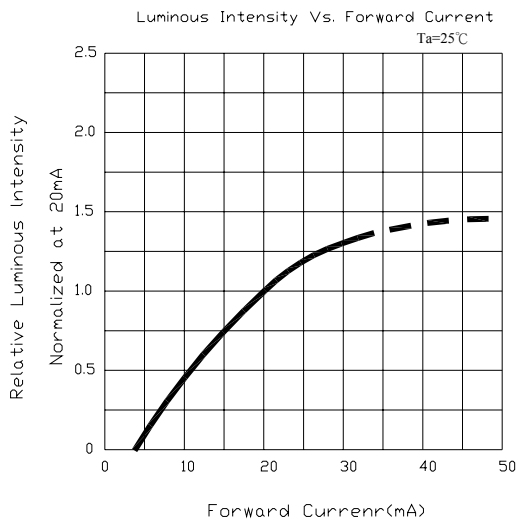
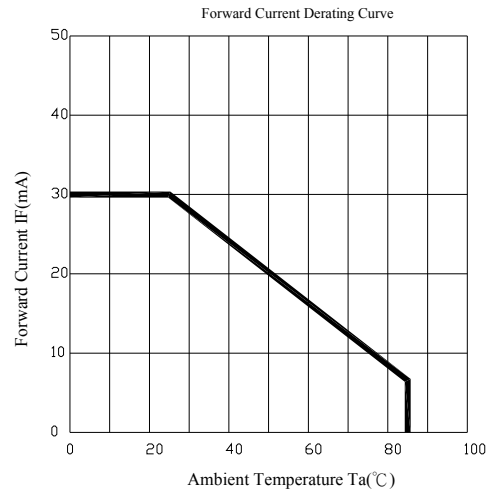
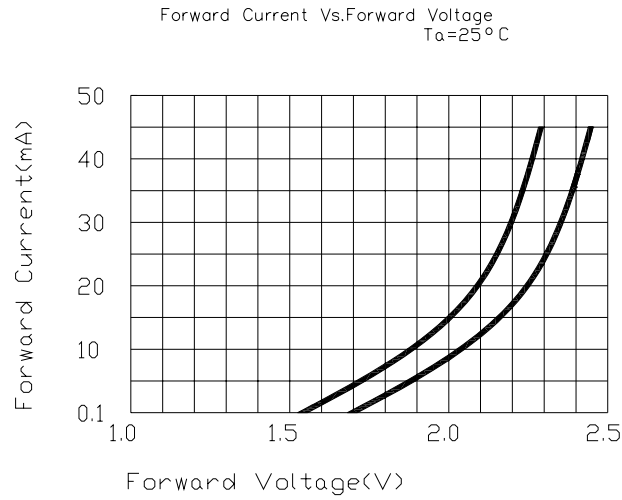
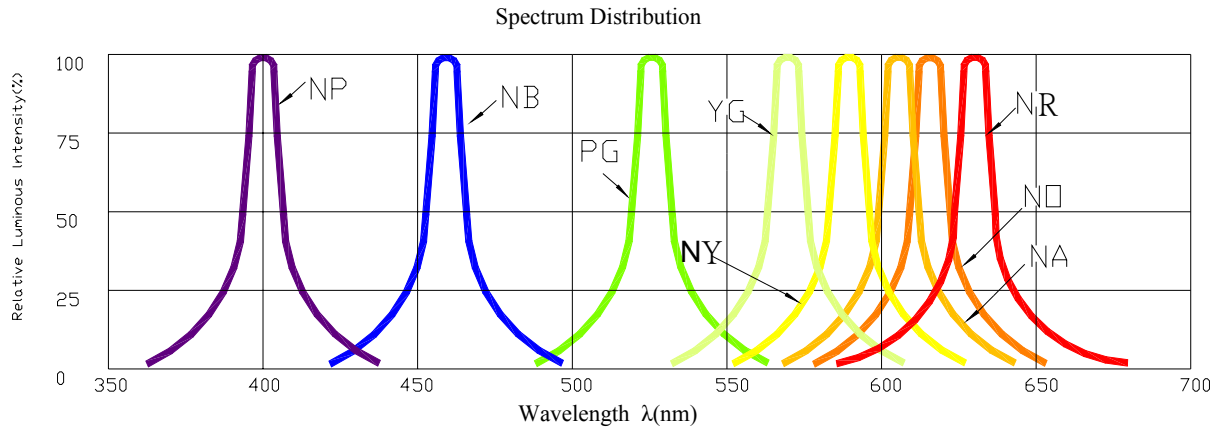
Paecommended Soldering Pattern



Note

1. All dimensions are in millimeters.
2. Tolerances unspecified are ± 0.1 mm.

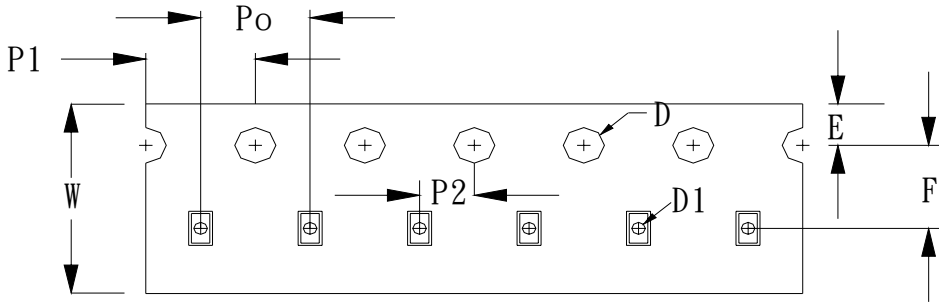
Typical Electro-Optical Characteristics Curves



Carrier Tape Dimensions: Loaded quantity 4000PCS per reel

| Packing Size | | | | | | | | | | | | | |
|--------------|-------|-------|-------|-------|-----------------------------------|-------|----------------|------------------|-------|----------------|----------------|----------------|-------|
| Item | W | P1 | E | F | D _o | D1 | P _o | 10P _o | P2 | A _o | B _o | K _o | t |
| Spec. | 8.00 | 4.00 | 1.75 | 3.50 | 1.50 | 0.5 | 4.00 | 40.00 | 2.00 | 0.90 | 1.75 | 0.70 | 0.23 |
| Tolerance | ±0.20 | ±0.10 | ±0.10 | ±0.05 | ^{+0.10} _{-0.00} | ±0.05 | ±0.05 | ±0.20 | ±0.05 | ±0.10 | ±0.10 | ±0.10 | ±0.05 |

● Tape Specifications



Precautions For Use

- Over-Current-Proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change. (Burn out will happen)
- Storage
 1. Do not open moisture proof bag before the products are ready to use.
 2. The LEDs should be used within a year. Before opening the package, the LEDs should be kept at 25°C or less and 30%RH or less.
 3. After opening the package, the LEDs should be kept at 30%RH or less.
 4. The LEDs should be used within 24 hours (1 day) after opening the package.
 5. If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage conditions, baking treatment should be performed using the following conditions. Baking treatment : 70±5°C for 72 hours.

Reliability Test Items And Conditions

| No. | Items | Test Condition | Test Hours/Cycles | Sample Size |
|-----|--------------------------------|---|-------------------|-------------|
| 1 | Solder Heat | TEMP : 240°C±5°C | 5 sec/3cycles | 48 pcs |
| 2 | Temperature Cycle | 90°C~ 25°C~ -30°C ~ 25°C 30m 5m 30m 5m | 300Cycles | 48 pcs |
| 3 | Thermal Shock | 100°C~ -55°C 10m 10m | 100Cycles | 48 pcs |
| 4 | Operation Life | If=20mA | 1000 Hrs | 48 pcs |
| 5 | High Temperature Storage | Temp:90°C | 1000Hrs | 48 pcs |
| 6 | Low Temperature Storage | Temp:-30°C | 1000Hrs | 48 pcs |
| 7 | High Temperature/High Humidity | 80°C / R.H80% | 1000Hrs | 48 pcs |