

SPECIFICATION FOR APPROVAL

承 认 书

CUSTOMER'S CODE

客户代码: _____

DESCRIPTION

品 名: _____ 发光二极管

SPECIFICATION

规 格: _____ Φ 8 四脚三色共阳

DATE

送样日期: _____

PART NO.

本厂型号: _____ 80CHH-RGBC-共阳

REFERENCE No.

档案号: _____

NUMBER OF SAMPLE

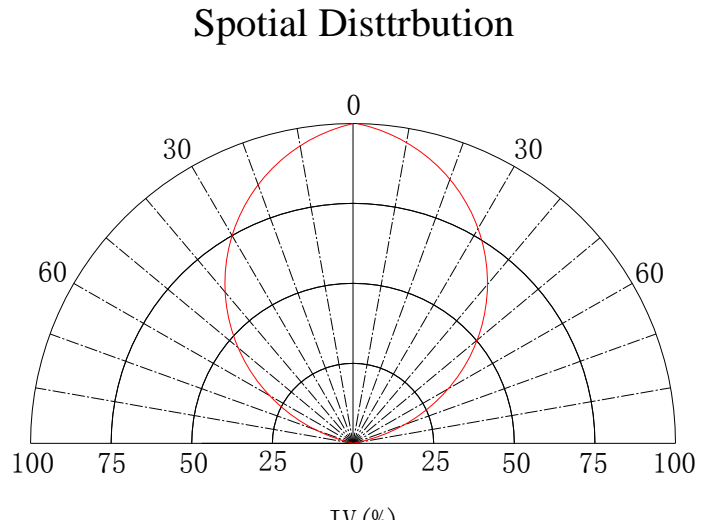
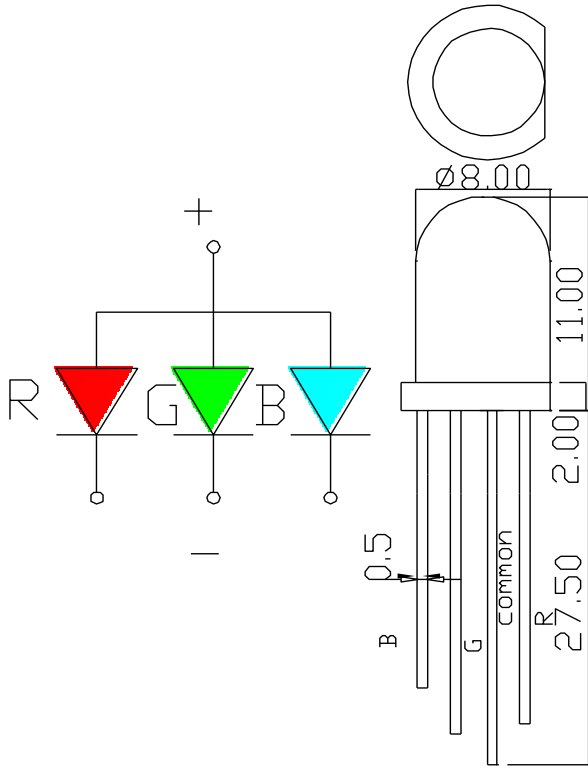
送样数量 _____

COPY OF ACKNOWLEDGEMENT

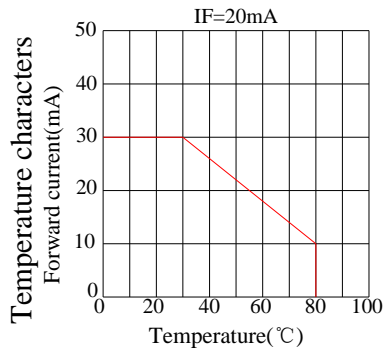
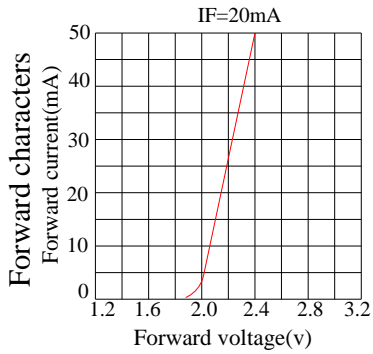
承认书份数 _____

| Approved By Customer 客 户 承 认 | Qualified By 核 准 | Form Designer 制 作 |
|---------------------------------|---------------------|----------------------|
| | | |

Emitter 外型图:

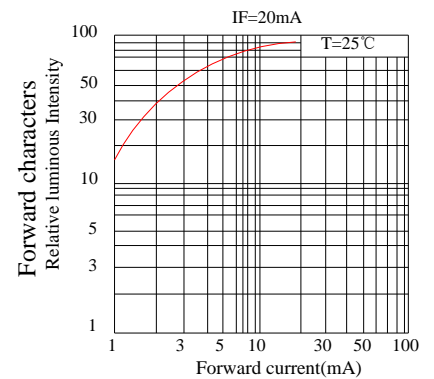
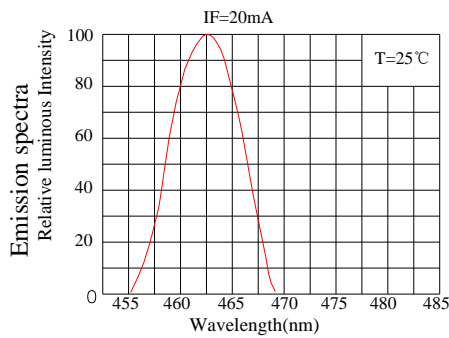
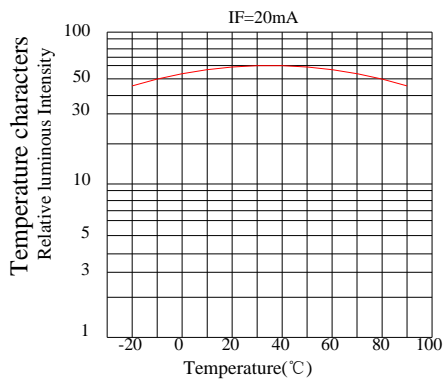


Typical electrical-optical Characteristics curves



Notes:

The data are an typical presentation of the product, Contact customer service for details of technical information and warranty.
The product is sensitive to static antistatic operation environment is recommended
Products are shipped in either bulk bag package or taping.



■ Absolute Maximum Rating 极限工作参数

| Item 项目 | Symbol 代号 | Absolute Maximum Rating 极限工作参数 | Unit 单位 |
|-----------------------------------|--------------|-----------------------------------|------------|
| Forward Current 正向电流 | IF | 20 | mA |
| Peak Forward Current 瞬间脉冲电流 | IFP | 50 | mA |
| Reverse Voltage 反向电压 | VR | 5 | V |
| Power Dissipation 消耗功率 | PD | 100 | mw |
| Electrostatic discharge 静电释放 | ESD | 1000 | V |
| Operation Temperature 工作温度范围 | TOPR | -25~+80 | °C |
| Storage Temperature 存放温度范围 | TSTG | -40~+80 | °C |
| Lead Soldering Temperature 最高焊接温度 | TSOL | 330 °C for 3sec Max。 | |

*Ifp Conditions: Pulse Wide ≤ 10msec ≤ 1/10

瞬间脉冲电流

*Tsol Conditions: 3mm from the base of epoxy bulb 最高焊接温度 距胶体 3mm

■ Typical Optical/Electrical Characteristics 光电特性参数

| Item 项目 | Symbol 代号 | Condition 测试条件 | 测试条 | Min 最小值 | Typ 典型值 | Max 最大值 | Unit 单位 |
|-------------------------------------|--------------|-------------------|-----|------------|------------|------------|------------|
| Forward Voltage 正向电压 | VF | IF=20mA | R | 1.9 | 2.0 | 2.1 | V |
| | | | G | 3.0 | 3.1 | 3.2 | |
| | | | B | 3.1 | 3.2 | 3.3 | |
| Light intensity 光强度 | IV | IF=20mA | R | 500 | 550 | 600 | mcd |
| | | | G | 2000 | 2500 | 3000 | |
| | | | B | 700 | 800 | 900 | |
| Wavelength 波长 | WD | IF=20mA | R | 620 | 623 | 625 | nm |
| | | | G | 517 | 518 | 520 | |
| | | | B | 465 | 467 | 468 | |
| Reverse current 逆向电流 | IR | IF=20mA | | 0 | / | 5 | uA |
| Viewing Angle 半光全角 | 2θ 1/2 | IF=20mA | | | | 20 | deg |
| Recommend Forward Current 持续正向电流 | IF(rec) | IF=20mA | | | | 20 | mA |

Notes:1. Work absolute ratings $T_a=25^{\circ}\text{C}$ 工作常规值 温度=25 $^{\circ}\text{C}$ 2. Tolerance of measurement of forward voltage $\pm 0.1\text{V}$ 正向电压误差范围 $\pm 0.1\text{V}$ **LED LAMP RELIABILITY****● Test Items And Results**

| Type | Test Item | REF. Standard | Test Condition | Note | Number of Damaged |
|------------------------|------------------------------|------------------------|---|----------------------|-------------------|
| Environmental Sequence | Temperature Cycle | JIS C 7021 (1997) A-4 | $-20^{\circ}\text{C} \rightarrow 25^{\circ}\text{C} \rightarrow 80^{\circ}\text{C} \rightarrow 25^{\circ}\text{C}$ 30mins,5mins,30mins,5mins | 100 cycles | 0/100 |
| | High Humidity Heat Cycle | JIS C 7021 (1997) A-5 | $30^{\circ}\text{C} \rightarrow 65^{\circ}\text{C}$ 90%RH 24hrs/1cycle | 10 cycles | 0/100 |
| | High Temperature Storage | JIS C 7021 (1997) B-10 | $T_a=80^{\circ}\text{C}$ | 1000hrs | 0/100 |
| | Humidity Heat Storage | JIS C 7021 (1997) B-11 | $T_a=60^{\circ}\text{C}$ RH=90% | 1000hrs | 0/100 |
| | Low Temperature Storage | JIS C 7021 (1997) B-12 | $T_a= -30^{\circ}\text{C}$ | 1000hrs | 0/100 |
| Operation Sequence | Life Test | JIS C 7035 (1985) | $T_a=25^{\circ}\text{C}$ $I_F=20\text{mA}$ | 1000hrs | 0/100 |
| | High Humidity Heat Life Test | * | 60°C RH=90% $I_F=20\text{mA}$ | 500hrs | 0/100 |
| | Low Temperature Life Test | * | $T_a= -20^{\circ}\text{C}$ $I_F=20\text{mA}$ | 1000hrs | 0/100 |
| Destructive Sequence | Resistance to Soldering Heat | JIS C 7021 (1997) A-11 | $T_{\text{sol}}=260 \pm 5^{\circ}\text{C}$,10sec (3mm from the base of the epoxy bulb) | 1 time | 0/20 |
| | Solderability | JIS C 7021 (1997) A-2 | $T_{\text{sol}}=235 \pm 5^{\circ}\text{C}$,5sec (Using flux) | 1 time (over 95%) | 0/20 |
| | Lead Pull/Bend Test | JIS C 7021 (1997)A-11 | Load 2.5N (0.25kgf) $0^{\circ} \rightarrow 90^{\circ} \rightarrow 0^{\circ}$ Bending 3 times | No noticeable damage | 0/20 |

* Refer to reliability test standard specification for in this line.

● Criteria for Judging The Damage

| Item | Symbol | Test Condition | Criteria for Judgment | |
|--------------------|--------|---------------------|-----------------------|--------------------|
| | | | Min. | Max. |
| Forward Voltage | V_F | $I_F = 20\text{mA}$ | --- | Initial data x 1.1 |
| Reverse Current | I_R | $V_R = 5\text{V}$ | --- | Initial data x 2.0 |
| Luminous Intensity | I_v | $I_F = 20\text{mA}$ | Initial data x 0.7 | --- |