



中山市晶博光电科技有限公司

ZHONGSHAN KINGHOOD OPTOELECTRONICS CO.,LTD.

DATA SHEET

PART NO. : S01GN5C1

DATE : 2009-11-12

DEPARTMENT : R&D

REVISION : 1

| | | | |
|---|----------|--------------|----------|
| RECEIVED | | | |
| <input type="checkbox"/> MASS PRODUCTION | | | |
| <input checked="" type="checkbox"/> PRELIMINARY | | | |
| <input type="checkbox"/> CUSTOMER DESIGN | | | |
| DEVICE NUMBER : | | JBDL-S01-034 | |
| PAGE : | | 4 | |
| CUSTOMER | DESIGNER | CHECKER | APPROVER |
| | | | |

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| | | |
| | | |
| | | |
| REV. | DESCRIPTION | RELEASE DATE |

Address: Bld.8,Fuwan Industrial Zone,Eastern,Zhongshan,Guangdong,China

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ZHONGSHAN KINGHOOD OPTOELECTRONICS CO.,LTD.

Device Number: JBDL-S01-034

REV: 1.0

5.0mm Cannibal Type LED Lamps

Model No.: S01GN5C1

ECN: _____

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■ Features :

- High radiant intensity
- Choice of various viewing angles
- Reliable and robust

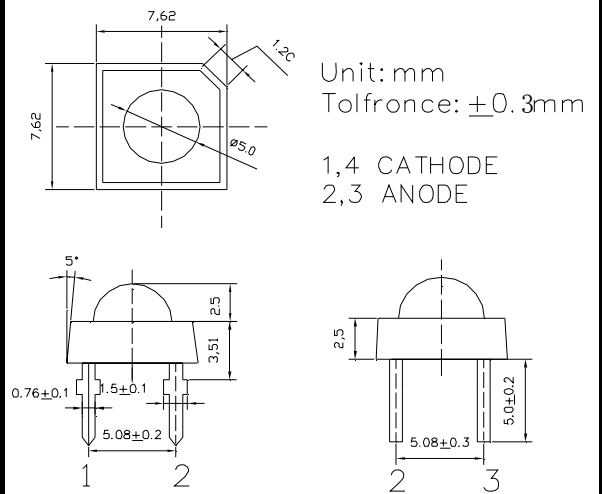
■ Descriptions :

- The series is specially designed for applications requiring higher brightness.
- The led lamps are available with different colors, intensities, epoxy colors, etc.

■ Applications :

- TV set
- Monitor
- Telephone
- Computer

■ Package Dimensions:



- Notes:**
1. All dimensions are in millimetres
 2. An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.
 3. Tolerances unless Dimension ± 0.25 mm.

| PART NO. | Chip | | Lens Color |
|----------|----------|---------------|-------------|
| | Material | Emitted Color | |
| S01GN5C1 | GaP | Green | Water Clear |

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■ Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|-------------------------|----------|-------------|------|
| Forward Current | IF | 60 | mA |
| Operating Temperature | Topr | -40 to +85 | °C |
| Storage Temperature | Tstg | -40 to +100 | °C |
| Electrostatic Discharge | ESD | 2000 | V |
| Soldering Temperature | Tsol | 260 ± 5 | °C |
| Power Dissipation | Pd | 120 | mW |
| Peak Forward Current | IF(Peak) | 100 | mA |
| Reverse Voltage | VR | 7 | V |

Note: *1:IFP Conditions --Pulse Width ≤ 1msec and Duty ≤ 1/10.

*2:Soldering time ≤ 5 seconds.

Electro-Optical Characteristics (Ta=25°C)

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|------------------------------|--------|-----------|------|------|------|------|
| Forward Voltage | VF | IF= 40 mA | / | 3.0 | 3.4 | V |
| Reverse Current | IR | VR= 7 V | / | / | 2 | μA |
| Luminous Intensity | Iv | IF= 40 mA | 1200 | 4000 | 9000 | mcd |
| Viewing Angle | 2θ 1/2 | IF= 40 mA | / | 70 | / | deg |
| Peak Wavelength | λp | IF= 40 mA | / | 520 | / | nm |
| Dominant Wavelength | λd | IF= 40 mA | / | 523 | / | nm |
| Spectrum Radiation Bandwidth | △λ | IF= 40 mA | / | 35 | / | nm |

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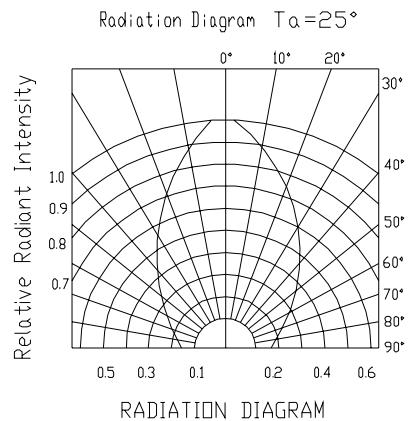
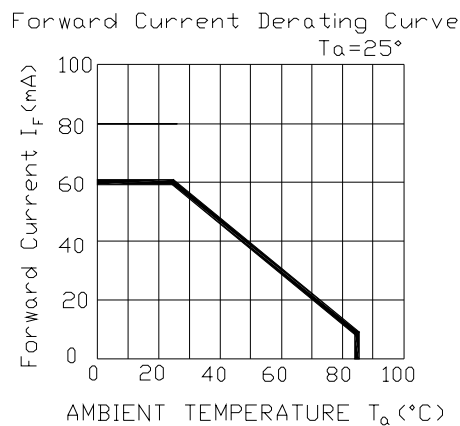
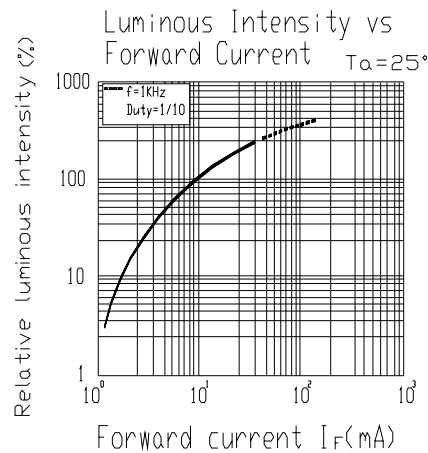
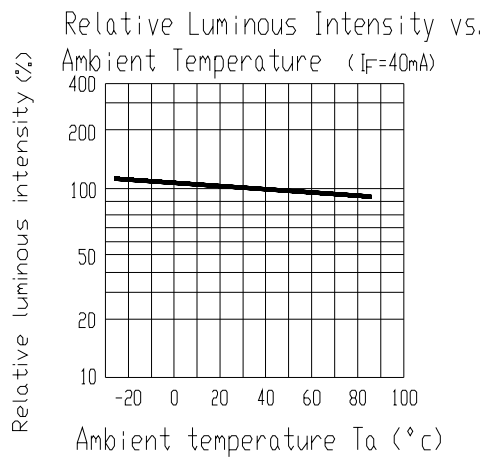
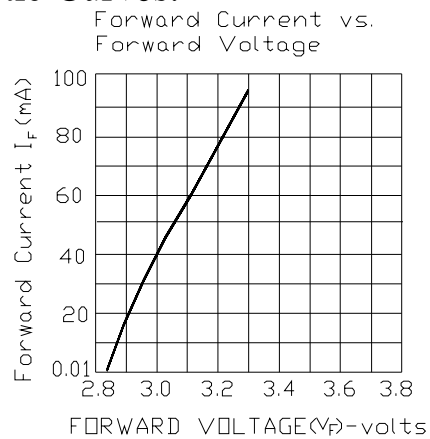
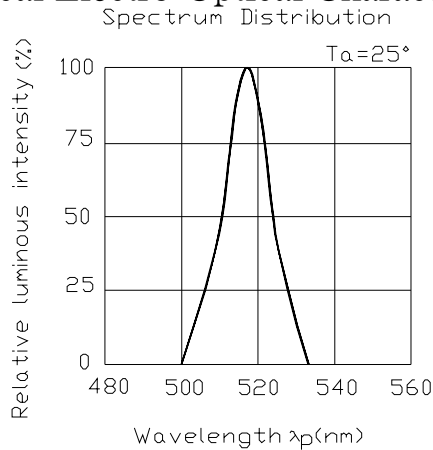
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Typical Electro-Optical Characteristic Curves:



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■ Reliability test items and conditions:

| NO | Item | Test Conditions | Test Hours/Cycle | Sample size | Ac/Re |
|----|---------------------------------|--|------------------|-------------|-------|
| 1 | Solder Heat | TEMP : 260°C ± 5 °C | 10 SEC | 76 PCS | 0/1 |
| 2 | Temperature Cycle | H : +100°C 15min ∩ 5 min L : -40°C 15min | 300 CYCLES | 76 PCS | 0/1 |
| 3 | Thermal Shock | H : +100°C 5min ∩ 10 sec L : -10°C 5min | 300 CYCLES | 76 PCS | 0/1 |
| 4 | High Temperature Storage | TEMP : 100°C | 1000 HRS | 76 PCS | 0/1 |
| 5 | Low Temperature Storage | TEMP : -40°C | 1000 HRS | 76 PCS | 0/1 |
| 6 | DC Operating Life | TEMP : 25°C IF =40mA | 1000 HRS | 76 PCS | 0/1 |
| 7 | High Temperature/ High Humidity | 85°C / 85% RH | 1000 HRS | 76 PCS | 0/1 |

*Iv: BRIGHTNESS ATTENUATE DIFFERENCE(1000hrs) < 10%

*VF: FORWARD VOLTAGE DIFFERENCE < 3%

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