



2.0*5.0mm Rectangle Type LED Lamps

MODEL NO : 511GD ECN : Page: 1/4**■ Features :**

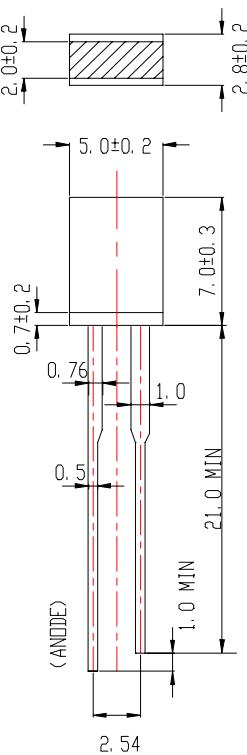
- Choice of various viewing angles
- Available on tape and reel
- Reliable and robust

■ Descriptions :

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

■ Applications :

- TV set
- Monitor
- Telephone
- Computer

■ Package Dimensions:**■ Notes :**

1. All dimensions are in millimeters.
2. An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.

| PART NO | Chip | | Lens Color |
|---------|----------|---------------|----------------|
| | Material | Emitted Color | |
| 511GD | GaP | Green | Green Diffused |

OFFICE : NO. 25,Lane 76,Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL : 886-2-2267-2000,2267-9936

FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>



2.0*5.0mm Rectangle Type LED Lamps

MODEL NO : 511GD ECN : Page: 2/4■ Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|--|----------|-------------|------|
| Forward Current | If | 30 | mA |
| Operating Temperature | Topr | -40 to +85 | °C |
| Storage Temperature | Tstg | -40 to +100 | °C |
| Soldering Temperature | Tsol | 260 ± 5 | °C |
| Power Dissipation | Pd | 100 | mW |
| Peak Forward Current(Duty 1/10 @ 1KHZ) | If(Peak) | 160 | mA |
| Reverse Voltage | Vr | 5 | V |

■ Electronic Optical Characteristics :

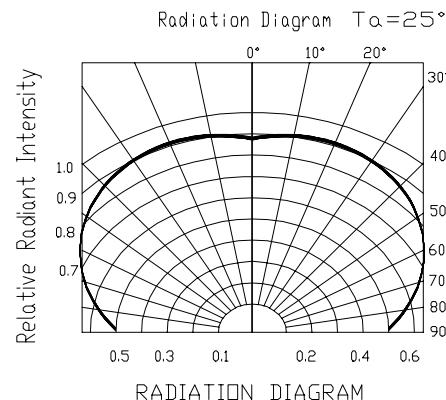
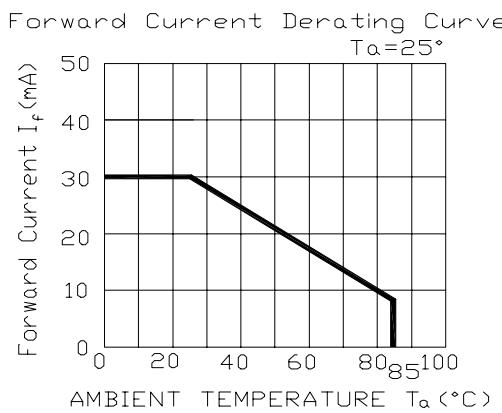
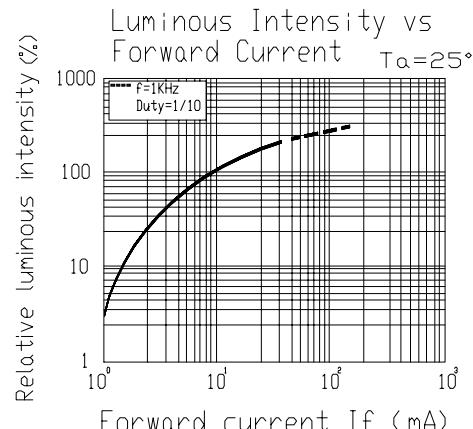
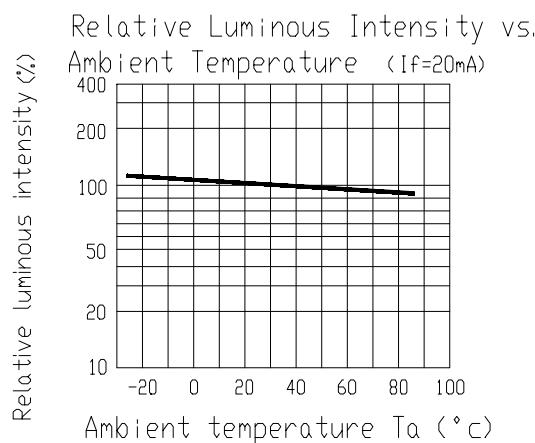
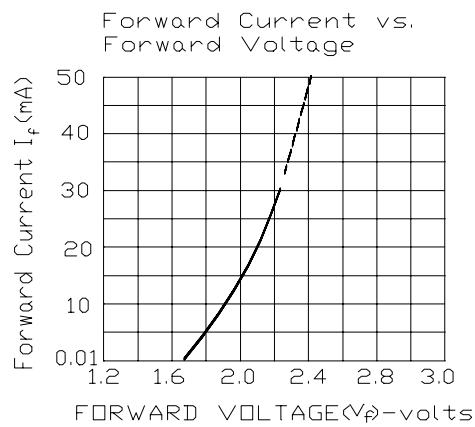
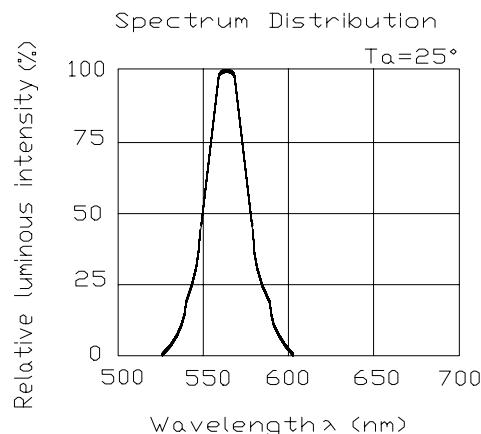
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|------------------------------|-----------------|------|------|------|---------------|-----------|
| Luminous Intensity | Iv | 0.4 | 1.0 | / | mcd | If= 10 mA |
| Viewing Angle | $2\theta_{1/2}$ | / | 180 | / | deg | If= 20 mA |
| Peak Wavelength | λ_p | / | 565 | / | nm | If= 20 mA |
| Dominant Wavelength | λ_d | / | 570 | / | nm | If= 20 mA |
| Spectrum Radiation Bandwidth | $\Delta\lambda$ | / | 30 | / | nm | If= 20 mA |
| Forward Voltage | Vf | 1.7 | 2.1 | 2.4 | V | If= 20 mA |
| Reverse Current | Ir | / | / | 10 | μA | Vr= 5 V |



2.0*5.0mm Rectangle Type LED Lamps

MODEL NO : 511GD ECN : Page: 3/4

■ Typical Electro-Optical Characteristic Curves:





EVERLIGHT ELECTRONICS CO.,LTD.

Device Number :

CDLE-051-059

REV:

1

2.0*5.0mm Rectangle Type LED Lamps

MODEL NO :

511GD

ECN :

Page:

4/4

■ Reliability test items and conditions:

| No | Item | Test Conditions | Test Hours/Cycle | Sample Size | Ac/Re |
|----|----------------------------------|---|------------------|-------------|-------|
| 1 | Solder Heat | TEMP : 260°C ± 5 °C | 5 SEC | 76 PCS | 0/1 |
| 2 | Temperature Cycle | H : +85°C 30min ↓ 5 min L : -55°C 30min | 50 CYCLE | 76 PCS | 0/1 |
| 3 | Thermal Shock | H : +100°C 5min ↓ 10 sec L : -10°C 5min | 50 CYCLE | 76 PCS | 0/1 |
| 4 | High Temperature Storage | TEMP : 100°C | 1000 HRS | 76 PCS | 0/1 |
| 5 | Low Temperature Storage | TEMP : -55°C | 1000 HRS | 76 PCS | 0/1 |
| 6 | DC Operating Life | If = 20 mA | 1000 HRS | 76 PCS | 0/1 |
| 7 | High Temperature / High Humidity | 85°C /85% RH | 1000 HRS | 76 PCS | 0/1 |