# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-138-030 REV.: 1

5.0mm Round Type LED Lamps

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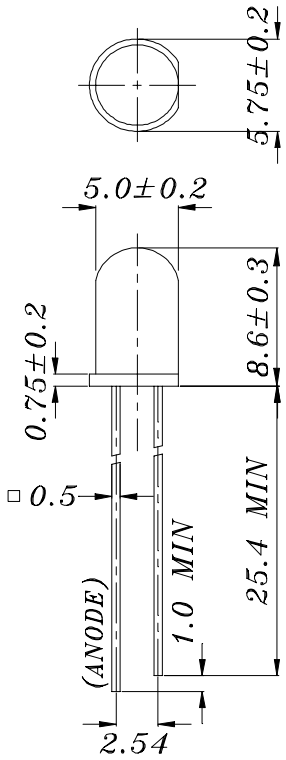
## ■ Features :

- 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 lamps are available with different colors, intensities,

## ■ Package Dimensions:




## ■ Applications :

- TV set
- Monitor
- Telephone
- Computer

## ■ Notes :

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

| PART NO. | Chip | | Lens Color |
|---|---|---|---|
| | Material | Emitted Color | |
| 1383UGD | GaP | Super Green | Green Diffused |


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This datasheet has been downloaded from http://www.digchip.com at this page

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## ■ Absolute Maximum Ratings at Ta = 25℃

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

## ■ Electronic Optical Characteristics :

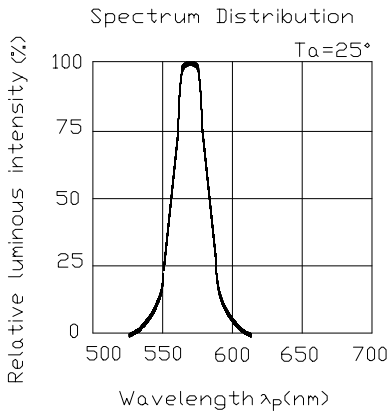
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|---|---|---|---|---|---|---|
| Luminous Intensity | Iv | 100.0 | 200.0 | ／ | mcd | IF= 20 mA |
| Viewing Angle | 2θ 1/2 | ／ | 25 | ／ | deg | IF= 20 mA |
| Peak Wavelength | λ p | ／ | 570 | ／ | nm | IF= 20 mA |
| Dominant Wavelength | λ d | ／ | 571 | ／ | nm | IF= 20 mA |
| Spectrum Radiation Bandwidth | △ λ | ／ | 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 |

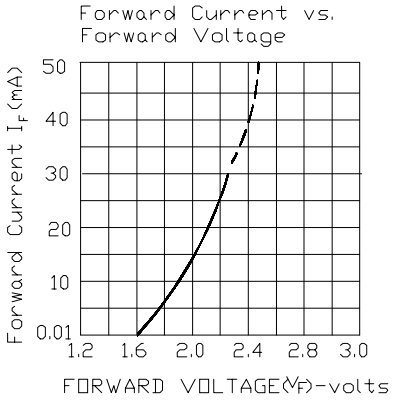
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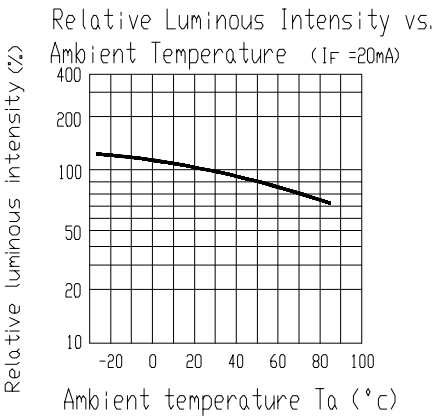
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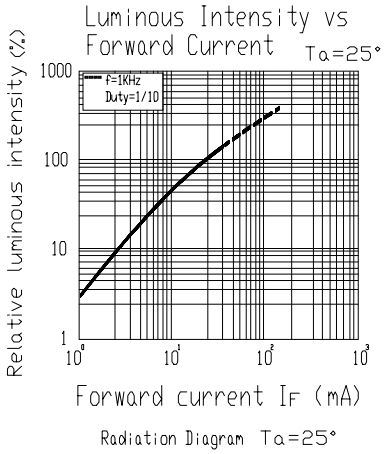
## ■ Typical Electro-Optical Characteristic Curves:

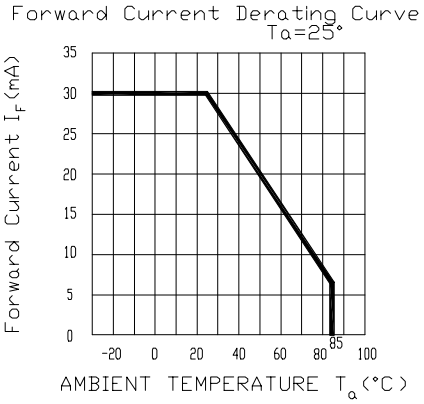
(UG)



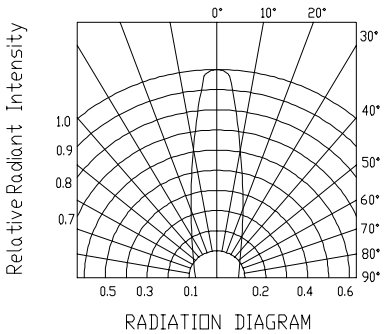




Radiation Diagram Ta=25°



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■ Reliability test items and conditions:

| NO | Item | Test Conditions | Test Hours/Cycle | | Ac/Re |
|---|---|---|---|---|---|
| 1 | Solder Heat | TEMP : 260℃ ± 5 ℃ | 5 SEC | 76 PCS | 0/1 |
| 2 | Temperature Cycle | H : +85℃ 30min<br>∫ 5 min<br>L : -55℃ 30min | 50 CYCLES | 76 PCS | 0/1 |
| 3 | Thermal Shock | H : +100℃ 5min<br>∫ 10 sec<br>L : -10℃ 5min | 50 CYCLES | 76 PCS | 0/1 |
| 4 | High Temperature Storage | TEMP : 100℃ | 1000 HRS | 76 PCS | 0/1 |
| 5 | Low Temperature Storage | TEMP : -55℃ | 1000 HRS | 76 PCS | 0/1 |
| 6 | DC Operating Life | TEMP : 25℃<br>$I_F$ = 20mA | 1000 HRS | 76 PCS | 0/1 |
| 7 | High Temperature / High Humidity | 85℃ / 85% RH | 1000 HRS | 76 PCS | 0/1 |