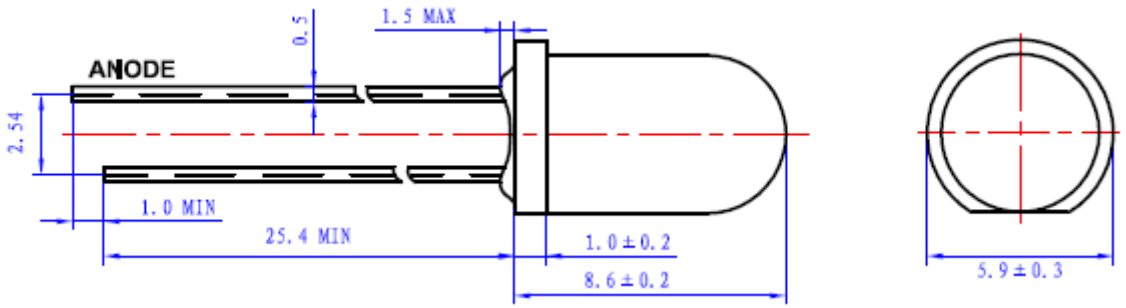
# 5.0mm Round LEDs

## MODEL NO : EC – 333UWC/LD

### Features

- High efficiency.
- Low power consumption.
- Choice of various viewing angles.
- Pb-free.
- The product itself will remain within RoHS complaint version.

### Package Dimensions




| Part No. | Chip | | Lens Color |
|---|---|---|---|
| | Material | Emitted color | |
| EC-333UWC/LD | InGaN | Super White | Water Clear |

### Note:

1. All dimensions are in millimeters.
2. Protruded resin under flange 1.5mm (0.059”) Max.

## Absolute maximum Ratings (Ta = 25℃)

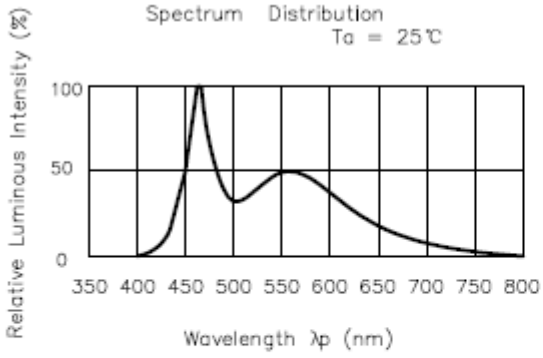
| Parameter | Symbol | Max | Unit |
|---|---|---|---|
| Forward current | $I_F$ | 30 | mA |
| Reverse voltage | $V_R$ | 5 | V |
| Power dissipation | Pd | 100 | mW |
| Peak forward current | IFP | 100 | mA |
| Operating temperature | Topr | -40℃ ~ 85℃ | |
| Storage temperature | Tstg | -40℃ ~ 90℃ | |
| Soldering temperature | Tsol | 260℃ for 5 Seconds | |

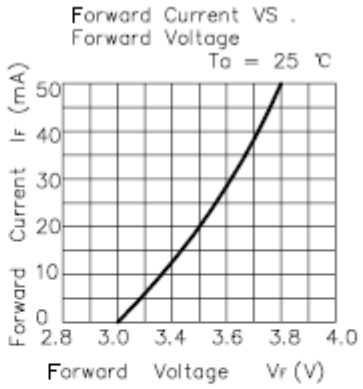
★ 1. Condition for Ifp is pulse of 1/10 duty 0.1msec width.

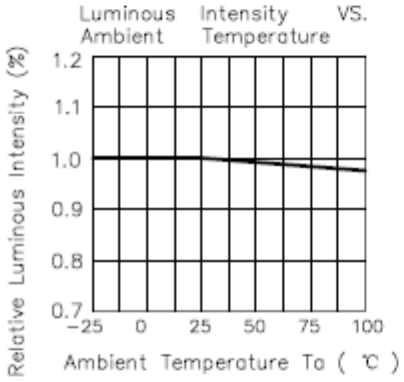
## Electro / Optical Characteristics (Ta = 25℃)

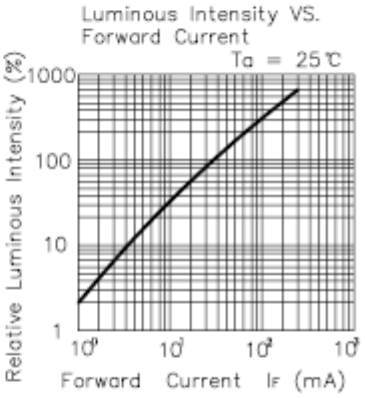
| Parameter | Symbol | Condition | Min | Tpy | Max | Unit |
|---|---|---|---|---|---|---|
| Luminous Intensity | Iv | IF = 20mA | ---- | 9000 | ---- | mcd |
| Forward Voltage | $V_F$ | | ---- | 3.6 | 4.0 | V |
| Reverse Current | $I_R$ | $V_R$ = 5V | ---- | ---- | 10 | μA |
| Color Temperature | Tc | IF = 20mA | ---- | 5600 | ---- | K |
| View Angle | 2θ 1/2 | | ---- | 20 | ---- | deg |
| Spectral Bandwidth | Δλ | | ---- | 20 | ---- | nm |
| Dominant Wavelength | X | | ---- | 0.27 | | |
| | Y | | ---- | 0.28 | ---- | |

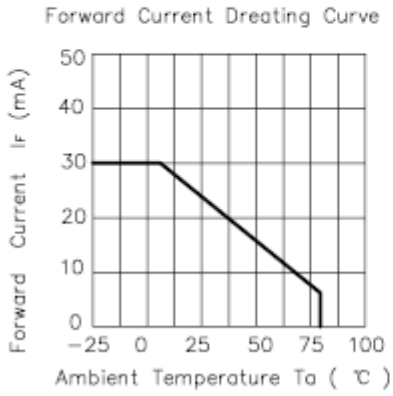
## Typical Electro-Optical Dharacteristics Curves

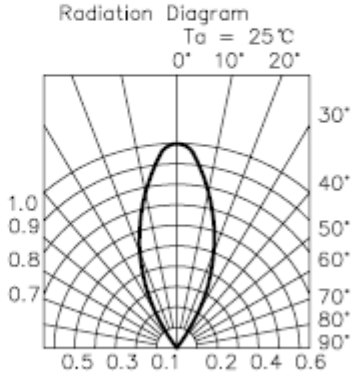


## Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.
Confidence level 90%
LTPD 10%

| NO. | Items | Test Condition | Test Hours/Cycles | Sample Size | Ac/Re |
|---|---|---|---|---|---|
| 1 | Soldering Heat | Temp:260℃±5℃ | 10±1 SEC | 76 PCS | 0/1 |
| 2 | Temperature Cycle | H:+85℃ 30 min<br>∫ 5 min<br>L:-55℃ 30 min | 50 Cycles | 76 PCS | 0/1 |
| 3 | Thermal Shock | H:+85℃ 30 min<br>∫ 5 min<br>L:-55℃ 30 min | 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 | IF = 20 mA | 1000 Hrs | 76 PCS | 0/1 |
| 7 | High Temperature / High Humidity | +85℃/ 85%RH | 1000 Hrs | 76 PCS | 0/1 |