



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDW-110-007 REV: 1.0

## 20.0mm Round Big LED Lamp

MODEL NO : EL-1100UBW

ECN :            Page: 1/5

### ■ Features :

- Graphic stacking allow-able.
- High luminous intensity.
- Solid state reliability.

### ■ Applications:

- Audio equipment
- Instrument panels
- Digital readout display

### ■ Description :

- The EL-1100 series consists of 20.0mm diameter round big LED lamps design for viewing distances up to 7 meters.
- These device provide excellent reliability in bright ambient light .

| PART NO    | CHIP              |               | C.C. or C.A. |
|------------|-------------------|---------------|--------------|
|            | Material          | Emitted Color |              |
| EL-1100UBW | GaN/Sic Substrate | Blue          | *****        |

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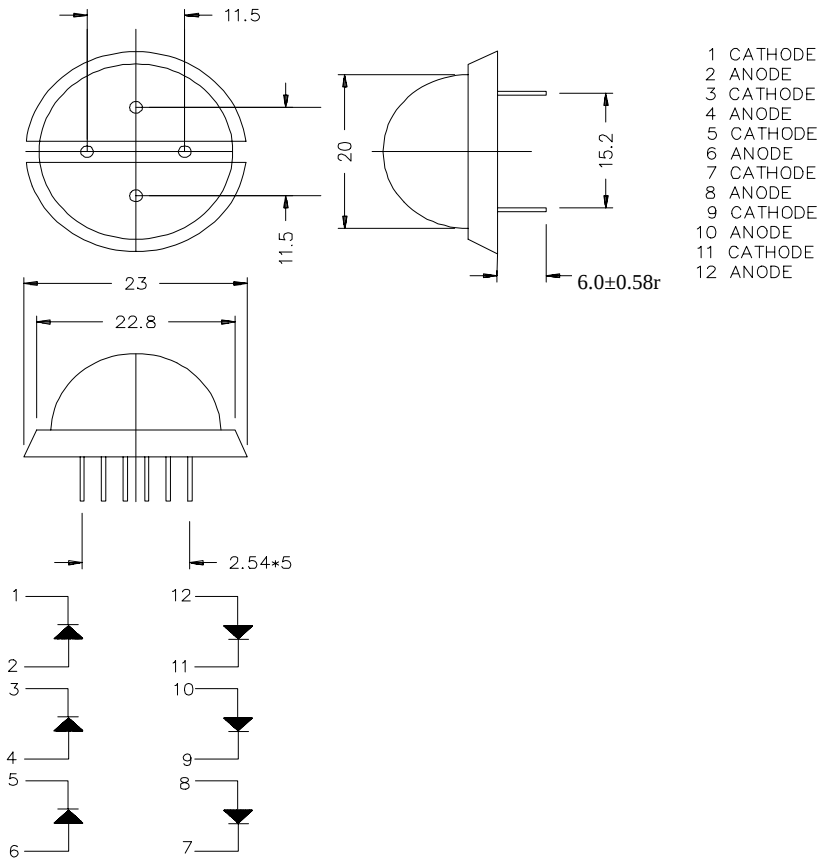
<http://www.everlight.com>





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### ■ Package Dimension:



### ■ NOTES:

- 1.All dimensions are millimeters , tolerance is 0.25mm unless otherwise noted.
- 2.Above specification may be changed without notice.  
Supplier will reserve authority on material change for above specification.



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## ■ Absolute maximum ratings at Ta = 25 :

| Parameter                                 | Symbol   | Rating      | Unit |
|-------------------------------------------|----------|-------------|------|
| Reverse Voltage                           | Vr       | 5           | V    |
| 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       | 140         | mW   |
| Peak Forward Current(Duty<br>1/10 @ 1KHZ) | If(Peak) | 70          | mA   |

## ■ Electronic optical characteristics :

| Parameter                       | Symbol | MIN. | TYP. | MAX. | Unit | Condition |
|---------------------------------|--------|------|------|------|------|-----------|
| Luminous Intensity              | IV     | 11   | 15   | ---- | mcd  | If=10mA   |
| Peak Wavelength                 | λ p    | ---- | 430  | ---- | nm   | If=20mA   |
| Dominant Wavelength             | λ d    | ---- | 466  | ---- | nm   | If=20mA   |
| Spectrum Radiation<br>Bandwidth | λ      | ---- | 65   | ---- | nm   | If=20mA   |
| Forward Voltage                 | Vf     | ---- | 3.8  | 4.5  | V    | If=20mA   |
| Reverse Current                 | Ir     | ---- | ---- | 10   | μ A  | Vr=5V     |



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## Reliability test item and condition:

| NO | Item                             | Test Conditions                           | Test Hours/Cycle | Sample Size | 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 CYCLE         | 76 PCS      | 0/1   |
| 3  | Thermal Shock                    | H : +100 5min<br>∫ 10 sec<br>L : -10 5min | 50 CYCLE         | 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   |



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### ■ Typical Electro-Optical Characteristic Curves:

