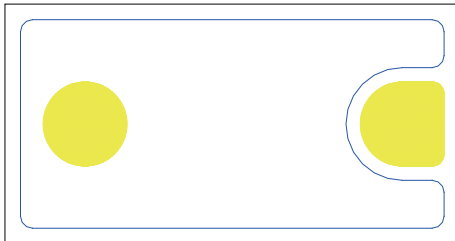


### Features

- Long lifetime and high reliability.
- High performance.
- 100% tested and sorted.
- Special specifications are optional.

### Mechanical Specification

| Description                      | Dimension              |
|----------------------------------|------------------------|
| Structure                        | InGaN/GaN MQW          |
| Chip Size ( $\mu\text{m}^2$ )    | 200 x 380 ( $\pm 25$ ) |
| Chip Thickness ( $\mu\text{m}$ ) | 85 $\pm$ 10            |
| Electrode Size ( $\mu\text{m}$ ) | 70 $\pm$ 5             |
| Electrode Material               | Au alloy               |



**W15A Chip Top View**

### Optical and Electrical Characteristics (Ta=22°C)

| Item                | Symbol      | Condition           | Level | Min   | Max   | Unit          |
|---------------------|-------------|---------------------|-------|-------|-------|---------------|
| Forward Voltage     | $V_F$       | $I_F = 20\text{mA}$ | V1    | 2.7   | 2.9   | V             |
|                     |             |                     | V2    | 2.9   | 3.1   |               |
|                     |             |                     | V3    | 3.1   | 3.3   |               |
|                     |             |                     | V4    | 3.3   | 3.5   |               |
| Reverse Current     | $I_R$       | $V_R = -10\text{V}$ |       | ...   | 0.1   | $\mu\text{A}$ |
| Dominant Wavelength | $\lambda_D$ | $I_F = 20\text{mA}$ | WK0   | 440   | 442.5 | nm            |
|                     |             |                     | ...   | ...   | ...   |               |
|                     |             |                     | WK5   | 452.5 | 455   |               |
|                     |             |                     | WK6   | 455   | 457.5 |               |
|                     |             |                     | WK9   | 462.5 | 465   |               |

### Luminous Intensity ( $I_F = 20\text{mA}$ Ta=22°C)

|       |     | P14 | P15 | P16 | P17 | P18 | P19 | P20 | P21 | P22 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| P(mW) | Min | 19  | 21  | 23  | 25  | 27  | 29  | 31  | 33  | 35  |
|       | Max | 21  | 23  | 25  | 27  | 29  | 31  | 33  | 35  | 37  |

### Absolute Maximum Ratings (Ta=22°C)

| Item                      | Symbol    | Condition                   | Rating    | Unit |
|---------------------------|-----------|-----------------------------|-----------|------|
| DC Forward Current        | $I_F$     | Ta=22°C                     | $\leq 30$ | mA   |
| Peak Forward Current      | $I_{FP}$  | Ta=22°C                     | $\leq 60$ | mA   |
| Reverse Voltage           | $V_R$     | Ta=22°C                     | $\leq 10$ | V    |
| Storage Temperature Range | $T_{stg}$ | chip                        | -40 ~ +85 | °C   |
|                           |           | chip-on-tape/storage        | 0 ~ +40   | °C   |
|                           |           | chip-on-tape/transportation | -20 ~ +65 | °C   |
| ESD(MM)                   | $V_{esd}$ | Ta=22°C                     | 200       | V    |

### Notes

- All parameters are measured using XGL's tester on bare chips.
  - Assembly processing temperature must not exceed 280°C for 10 seconds.
  - Humidity and temperature range: 50%~70% & 18°C~25°C.
  - GaN LEDs are ESD sensitive. Please observe appropriate precautions during handling and processing.
- For further information please refer to MIL-STD-1686A.