

# UV-B Sensor

## GUVB-T11GD-L

### Features

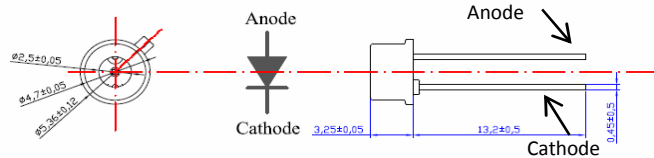
Aluminium Gallium Nitride Based Material  
Schottky-type Photodiode  
Photovoltaic Mode Operation  
Good Visible Blindness  
High Responsivity & Low Dark Current



### Applications

UV-B Lamp Monitoring  
UV-B LED Monitoring

### Outline Diagrams and Dimensions



### Absolute Maximum Ratings

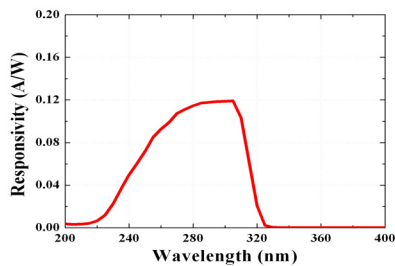
| Parameter                  | Symbol        | Min.  | Max. | Unit              | Remark         |
|----------------------------|---------------|-------|------|-------------------|----------------|
| Storage Temperature        | $T_{st}$      | -40   | 90   | °C                |                |
| Operating Temperature      | $T_{op}$      | -30   | 85   | °C                |                |
| Reverse Voltage            | $V_{r, max.}$ |       | 3    | V                 |                |
| Forward Current            | $I_{f, max.}$ |       | 1    | mA                |                |
| Optical Source Power Range | $P_{opt}$     | 0.01μ | 100m | W/cm <sup>2</sup> | UVB Lamp       |
| Soldering Temperature      | $T_{sol}$     |       | 260  | °C                | within 10 sec. |

※Notice: apply to us in the case that Optical Source Power is over 100mW/cm<sup>2</sup>

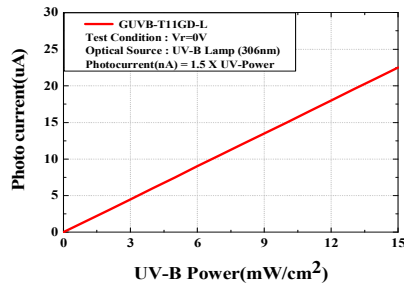
### Characteristics (at 25°C)

| Parameter                | Symbol    | Min. | Typ.  | Max. | Unit            | Test Conditions                 |
|--------------------------|-----------|------|-------|------|-----------------|---------------------------------|
| Dark Current             | $I_d$     |      |       | 20   | nA              | $V_r = 0.1$ V                   |
| Photo Current            | $I_{ph}$  | 1.35 | 1.5   | 1.65 | μA              | UVB Lamp, 1mW/cm <sup>2</sup>   |
| Temperature Coefficient  | $I_{tc}$  |      | 0.1   |      | %/°C            | UVB Lamp                        |
| Responsivity             | R         |      | 0.13  |      | A/W             | $\lambda = 300$ nm, $V_r = 0$ V |
| Spectral Detection Range | $\lambda$ | 220  |       | 320  | nm              | 10% of R                        |
| Active area              |           |      | 1.536 |      | mm <sup>2</sup> |                                 |

### Responsivity Curve



### Photocurrent along UV Power



### Caution

ESD can damage the device hence please avoid ESD. Insulate the cap of TO-CAN or it can cause malfunction of the device.