

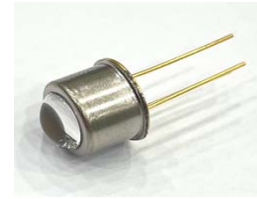
UV-B Sensor(High Sensitivity)

GUVB-T21LD-L



Features

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

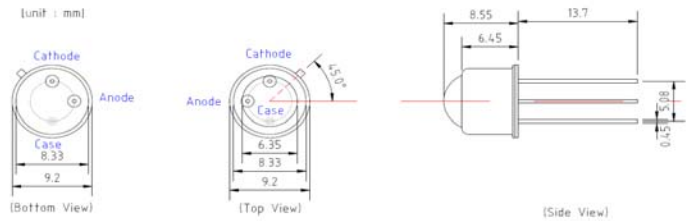


Lens Type UV Sensor

Applications

- UV-B Lamp Monitoring
- UV-B LED Monitoring
- Flame detector**
- Hydrogen detector**

Outline Diagrams and Dimensions



Absolute Maximum Ratings

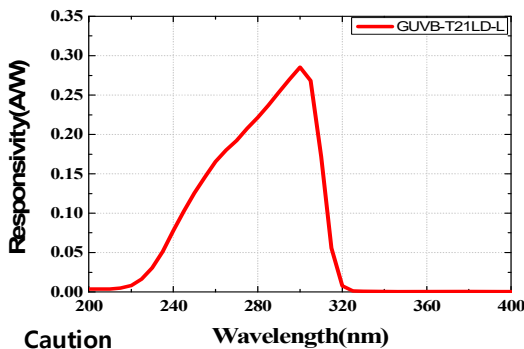
| Parameter | Symbol | Min. | Max. | Unit | Remark |
|----------------------------|---------------|------|------|--------------------|----------------|
| Storage Temperature | T_{st} | -40 | 90 | °C | |
| Operating Temperature | T_{op} | -30 | 85 | °C | |
| Reverse Voltage | $V_{r, max.}$ | | 3 | V | |
| Forward Current | $I_{f, max.}$ | | 1 | mA | |
| Optical Source Power Range | P_{opt} | 0.01 | 100 | mW/cm ² | 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/cm²

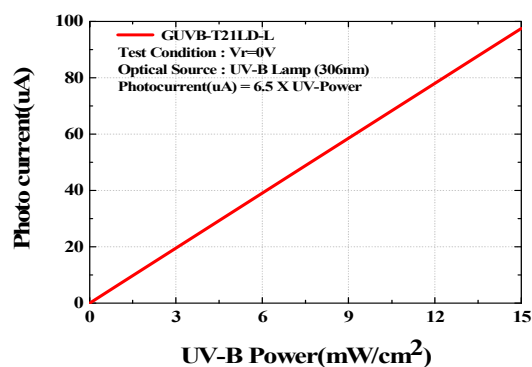
Characteristics (at 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--------------------------|-----------|------|-------|------|-----------------|---------------------------------|
| Dark Current | I_d | | | 20 | nA | $V_r = 0.1$ V |
| Photo Current | I_{ph} | | 6.5 | | μA | UVB Lamp, 1mW/cm ² |
| Temperature Coefficient | I_{tc} | | 0.1 | | %/°C | UVB Lamp |
| Responsivity | R | | 0.28 | | A/W | $\lambda = 300$ nm, $V_r = 0$ V |
| Spectral Detection Range | λ | 220 | | 320 | nm | 10% of R |
| Active area | | | 1.536 | | mm ² | |

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.