

# UV / Visible Sensor

## GVGR-T10GD

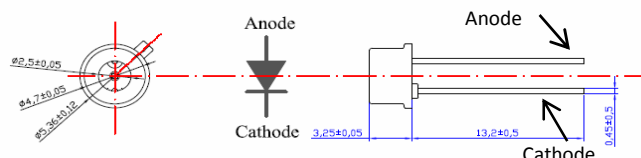


- Features**
- TO-46 with quartz glass
  - Indium Gallium Nitride Based Material
  - PN-type Photodiode
  - Photovoltaic Mode Operation
  - High Responsivity & Low Dark Current



- Applications**
- UV LED Monitoring (385, 405nm, etc.)
  - Blue LED Monitoring
  - UVA Lamp Monitoring
  - UV Curing

**Outline Diagrams and Dimensions**



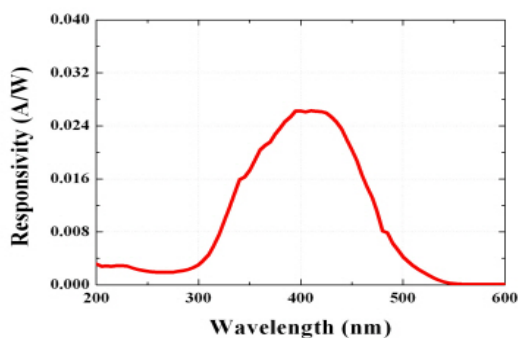
**Absolute Maximum Ratings**

| Parameter             | Symbol        | Min. | Max. | Unit        | Remark         |
|-----------------------|---------------|------|------|-------------|----------------|
| Storage Temperature   | $T_{st}$      | -40  | 90   | $^{\circ}C$ |                |
| Operating Temperature | $T_{op}$      | -30  | 85   | $^{\circ}C$ |                |
| Reverse Voltage       | $V_{r, max.}$ |      | 5    | V           |                |
| Forward Current       | $I_{f, max.}$ |      | 1    | mA          |                |
| Soldering Temperature | $T_{sol}$     |      | 260  | $^{\circ}C$ | within 10 sec. |

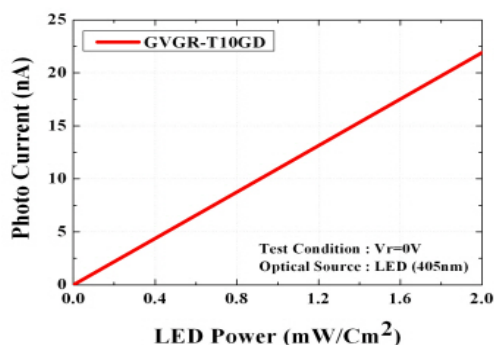
**Characteristics (at 25 $^{\circ}C$ )**

| Parameter                | Symbol    | Min. | Typ.  | Max. | Unit           | Test Conditions               |
|--------------------------|-----------|------|-------|------|----------------|-------------------------------|
| Dark Current             | $I_d$     |      |       | 1    | nA             | $V_r = 0.1 V$                 |
| Photo Current            | $I_{ph}$  |      | 11    |      | nA             | LED (405nm), $1mW/cm^2$       |
| Temperature Coefficient  | $T_c$     |      | -0.08 |      | $\%/^{\circ}C$ |                               |
| Responsivity             | R         |      | 0.026 |      | A/W            | $\lambda = 405 nm, V_r = 0 V$ |
| Spectral Detection Range | $\lambda$ | 300  |       | 510  | nm             | 10% of R                      |

**Responsivity Curve**



**Photocurrent along LED 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.