

UV-A Sensor

GUVV-T20GD-U

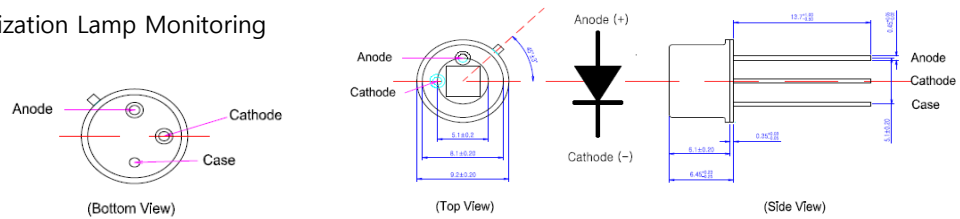


- Features**
- Indium Gallium Nitride Based Material
 - Schottky-type Photodiode
 - Photovoltaic Mode Operation
 - High Responsivity & Low Dark Current



- Applications**
- Full UV Band Monitoring
 - UV-A Lamp Monitoring
 - Sterilization Lamp Monitoring

Outline Diagrams and Dimensions



Absolute Maximum Ratings

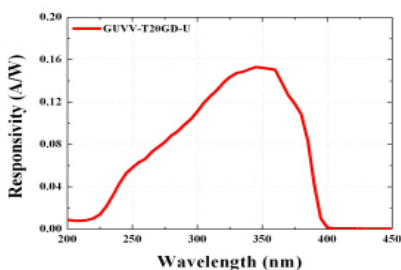
| Parameter | Symbol | Min. | Max. | Unit | Remark |
|----------------------------|---------------|-------------|------|-------------------|----------------|
| Storage Temperature | T_{st} | -40 | 90 | °C | |
| Operating Temperature | T_{op} | -30 | 85 | °C | |
| Reverse Voltage | $V_{r, max.}$ | | 2 | V | |
| Forward Current | $I_{f, max.}$ | | 1 | mA | |
| Optical Source Power Range | P_{opt} | 0.001 μ | 100m | W/cm ² | UVA 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.

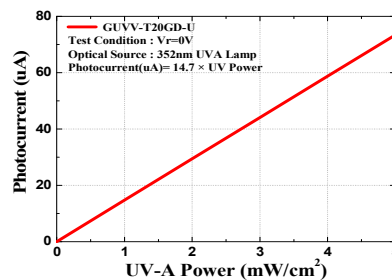
Characteristics (at 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--------------------------|-----------|------|-------|------|-----------------|---------------------------------|
| Dark Current | I_d | | | 90 | nA | $V_r = 0.1$ V |
| Photo Current | I_{ph} | 13.2 | 14.7 | 16.1 | μ A | UVA Lamp, 1mW/cm ² |
| Temperature Coefficient | I_{tc} | | 0.1 | | %/°C | UVA Lamp |
| Responsivity | R | | 0.15 | | A/W | $\lambda = 352$ nm, $V_r = 0$ V |
| Spectral Detection Range | λ | 230 | | 395 | nm | 10% of R |
| Active area | | | 6.894 | | 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.