

UV / Visible Sensor

GVBL-S12SD

Features

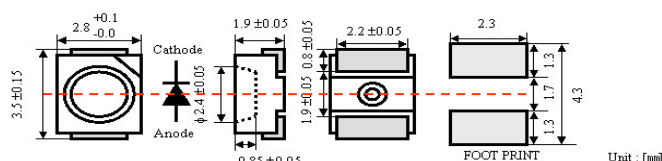
- SMD3528 with Si-encapsulant
- Indium Gallium Nitride Based Material
- PN-type Photodiode
- Photovoltaic Mode Operation
- High Responsivity & Low Dark Current



Applications

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

Outline Diagrams and Dimensions



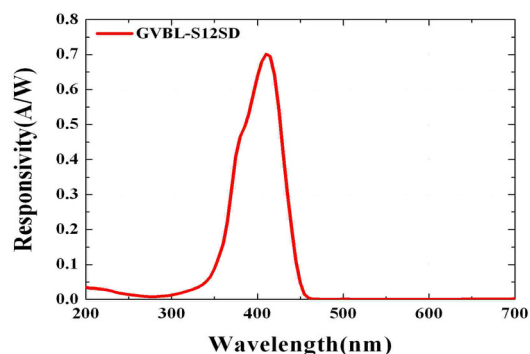
Absolute Maximum Ratings

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

Characteristics (at 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--------------------------|-----------|------|------|------|------|----------------------------------|
| Dark Current | I_d | | | 1 | nA | $V_r = 0.1 V$ |
| Photo Current | I_{ph} | | 90 | | nA | UVA (352nm), 1mW/cm ² |
| | | | 790 | | | 405nm LED, 1mW/cm ² |
| Responsivity | R | | 0.68 | | A/W | $\lambda = 405 nm, V_r = 0 V$ |
| Spectral Detection Range | λ | 345 | | 450 | nm | 10% of R |

Responsivity Curve



Photocurrent along UV Power

