



## GUVA-S12SD



### TECHNICAL DATA

## UV-B Sensor

#### Features

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

#### Applications

- UV Index Monitoring
- UV-A Lamp Monitoring

#### Absolute Maximum Ratings

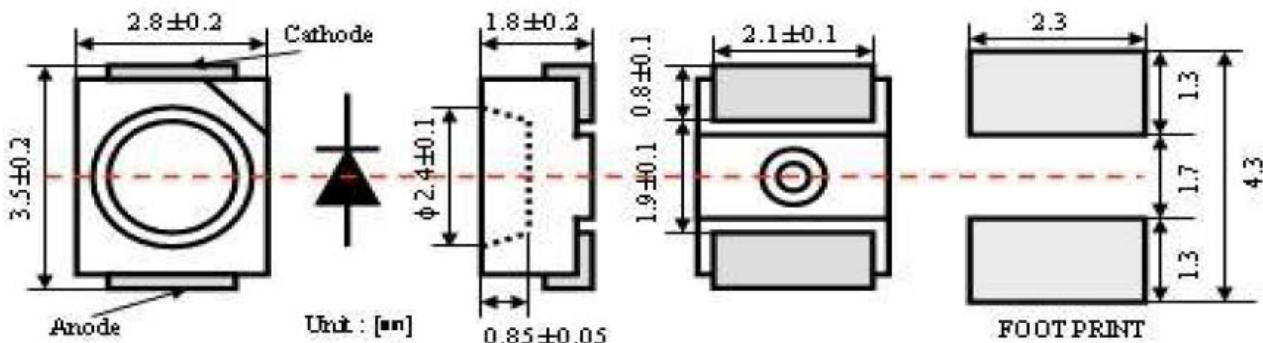
| Item                    | Symbol    | Value       | Unit |
|-------------------------|-----------|-------------|------|
| Forward Current         | $I_F$     | 1           | mA   |
| Reverse Voltage         | $V_R$     | 5           | V    |
| Operating Temperature   | $T_{op}$  | -30 ... +85 | °C   |
| Storage Temperature     | $T_{st}$  | -40 ... +90 | °C   |
| Soldering Temperature * | $T_{sol}$ | 260         | °C   |

\* must be completed within 10 seconds

#### Characteristics (25°C)

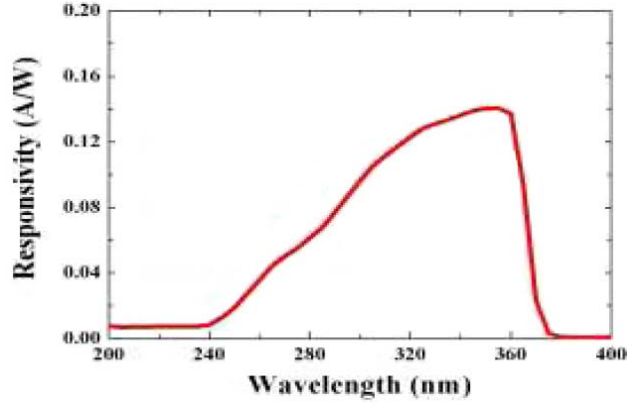
| Item                     | Symbol    | Test Conditions                | Min. | Typ. | Max. | Unit   |
|--------------------------|-----------|--------------------------------|------|------|------|--------|
| Dark Current             | $I_D$     | $V_R = 0.1 V$                  | -    | -    | 1    | nA     |
| Photo Current            | $I_{PD}$  | UVA Lamp, 1 mW/cm <sup>2</sup> | -    | 113  | -    | nA     |
|                          |           | 1 UVI                          | -    | 26   | -    | nA     |
| Temperature Coefficient  | $I_{TC}$  | UVA Lamp                       | -    | 0.08 | -    | % / °C |
| Responsivity             | R         | $\lambda = 300 nm, V_R = 0 V$  | -    | 0.14 | -    | A/W    |
| Spectral Detection Range | $\lambda$ | 10% of R                       | 240  | -    | 370  | nm     |

#### Package Dimension





## Responsivity Curve



## Photocurrent along UV Power

