



# UV-A Sensor

## GUVA-S12SD

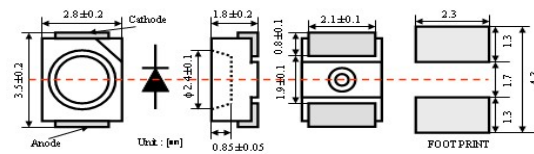


- Features**
- Gallium Nitride Based Material
  - Schottky-type Photodiode
  - Photovoltaic Mode Operation
  - Good Visible Blindness
  - High Responsivity & Low Dark Current



- Applications**
- UV Index Monitoring
  - UV-A Lamp Monitoring

### Outline Diagrams and Dimensions



### Absolute Maximum Ratings

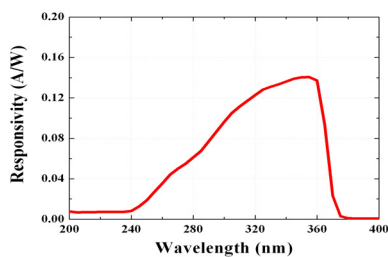
Parameter	Symbol	Min.	Max.	Unit	Remark
Storage Temperature	T <sub>st</sub>	-40	90	°C	
Operating Temperature	T <sub>op</sub>	-30	85	°C	
Reverse Voltage	V <sub>r, max.</sub>		5	V	
Forward Current	I <sub>f, max.</sub>		1	mA	
Optical Source Power Range	P <sub>opt</sub>	0.1	100,000	μW/cm <sup>2</sup>	UVA Lamp
Soldering Temperature	T <sub>sol</sub>		260	°C	within 10 sec.

※Notice: apply to us in the case that Optical Source Power is over 100,000μW/cm<sup>2</sup>.

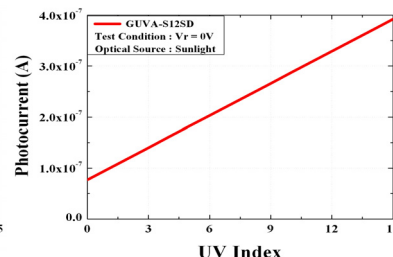
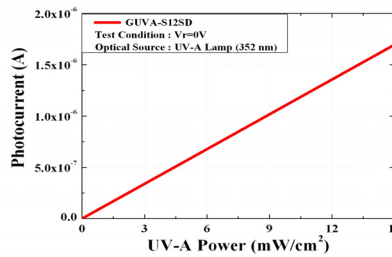
### Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I <sub>d</sub>			1	nA	V <sub>r</sub> = 0.1 V
Photo Current	I <sub>ph</sub>		113		nA	UVA Lamp, 1mW/cm <sup>2</sup>
			26		nA	1 UVI
Temperature Coefficient	I <sub>tc</sub>		0.08		%/°C	UVA Lamp
Responsivity	R		0.14		A/W	λ = 350 nm, V <sub>r</sub> = 0 V
Spectral Detection Range	λ	240		370	nm	10% of R
Active area			0.076		mm <sup>2</sup>	

### Responsivity Curve



### Photocurrent along UV Power



### Caution

ESD can damage the device hence please avoid ESD.