

# UV-B Sensor

## GUVB-T21GD-U



### Features

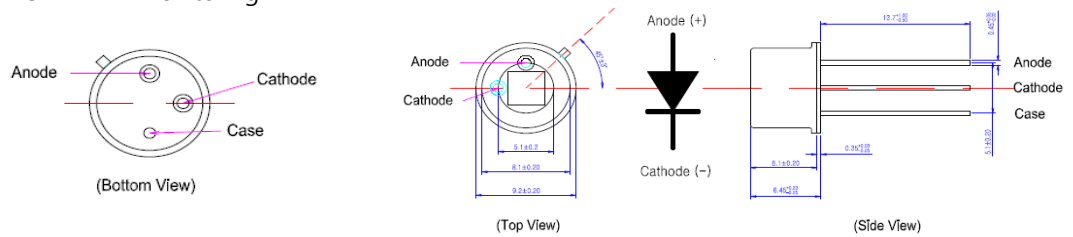
- Aluminium Gallium Nitride Based Material
- Schottky-type Photodiode
- Photovoltaic Mode Operation
- Good Visible Blindness
- High Responsivity & Low Dark Current



### Applications

- UV-B Lamp Monitoring
- UV-B LED Monitoring

### Outline Diagrams and Dimensions



### Absolute Maximum Ratings

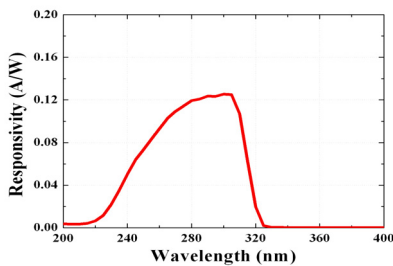
Parameter	Symbol	Min.	Max.	Unit	Remark
Storage Temperature	$T_{st}$	-40	90	°C	
Operating Temperature	$T_{op}$	-30	85	°C	
Reverse Voltage	$V_{r, max.}$		3	V	
Forward Current	$I_{f, max.}$		1	mA	
Optical Source Power Range	$P_{opt}$	0.001 $\mu$	100m	W/cm <sup>2</sup>	UVB Lamp
Soldering Temperature	$T_{sol}$		260	°C	within 10 sec.

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

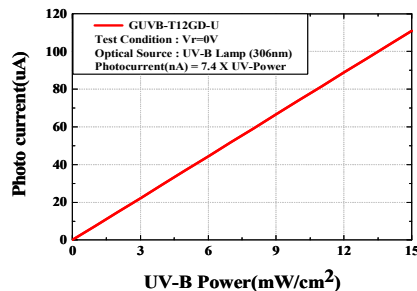
### Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	$I_d$			90	nA	$V_r = 0.1 V$
Photo Current	$I_{ph}$	6.7	7.4	8.1	$\mu A$	UVB Lamp, 1mW/cm <sup>2</sup>
Temperature Coefficient	$I_{tc}$		0.1		%/°C	UVB Lamp
Responsivity	R		0.13		A/W	$\lambda = 300 nm, V_r = 0 V$
Spectral Detection Range	$\lambda$	220		320	nm	10% of R
Active area			6.894		mm <sup>2</sup>	

### 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.