

UV-B Sensor

GUVB-T21GD-U

Features

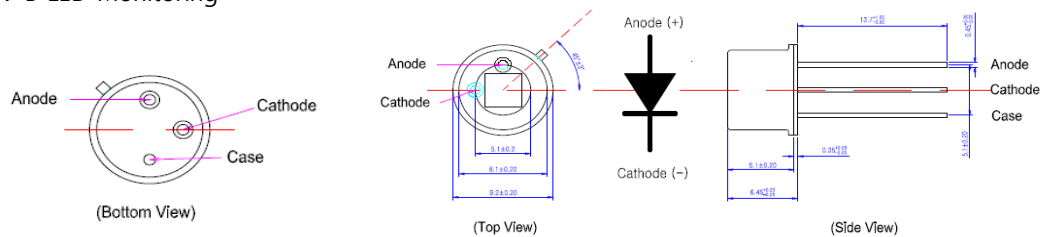
Aluminium Gallium Nitride Based Material
Schottky-type Photodiode
Photovoltaic Mode Operation
Good Visible Blindness
High Responsivity & Low Dark Current



Applications

UV-B Lamp Monitoring
UV-B LED Monitoring

Outline Diagrams and Dimensions



Absolute Maximum Ratings

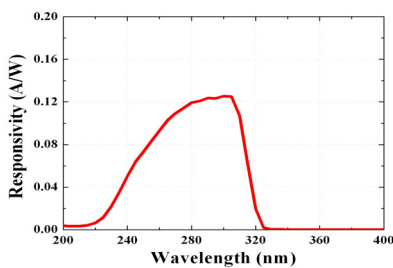
Parameter	Symbol	Min.	Max.	Unit	Remark
Storage Temperature	T_{st}	-40	90	$^{\circ}\text{C}$	
Operating Temperature	T_{op}	-30	85	$^{\circ}\text{C}$	
Reverse Voltage	$V_r, \text{max.}$		3	V	
Forward Current	$I_{f, \text{max.}}$		1	mA	
Optical Source Power Range	P_{opt}	0.001 μ	100m	W/cm ²	UVB Lamp
Soldering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

※Notice: apply to us in the case that Optical Source Power is over 100mW/cm²

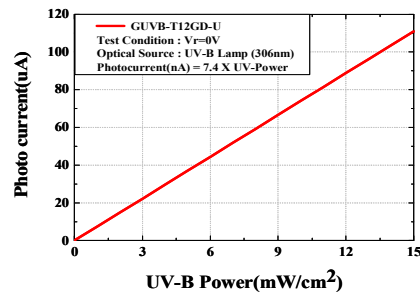
Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I_d			90	nA	$V_r = 0.1 \text{ V}$
Photo Current	I_{ph}	6.7	7.4	8.1	μA	UVB Lamp, 1mW/cm ²
Temperature Coefficient	I_{tc}		0.1		%/ $^{\circ}\text{C}$	UVB Lamp
Responsivity	R		0.13		A/W	$\lambda = 300 \text{ nm}, V_r = 0 \text{ V}$
Spectral Detection Range	λ	220		320	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.