



UV-B Sensor GUVB-T21GD-U

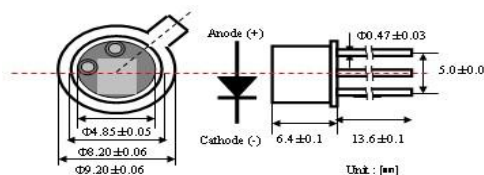


- Features**
- Aluminium Gallium Nitride Based Material
 - Schottky-type Photodiode
 - Photovoltaic Mode Operation
 - Good Visible Blindness
 - High Responsivity & Low Dark Current



- Applications**
- UV-B Lamp Monitoring
 - UV-B LED Monitoring

Outline Diagrams and Dimensions



Absolute Maximum Ratings

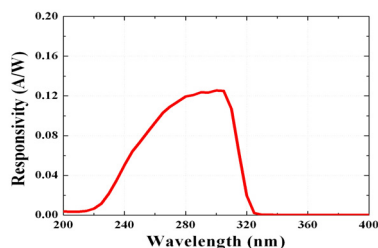
Parameter	Symbol	Min.	Max.	Unit	Remark
Storage Temperature	T_{st}	-40	90	$^{\circ}C$	
Operating Temperature	T_{op}	-30	85	$^{\circ}C$	
Reverse Voltage	$V_{r, max.}$		3	V	
Forward Current	$I_{f, max.}$		1	mA	
Optical Source Power Range	P_{opt}	0.001	100,000	$\mu W/cm^2$	UVB Lamp
Soldering Temperature	T_{sol}		260	$^{\circ}C$	within 10 sec.

※Notice: apply to us in the case that Optical Source Power is over 100,000 $\mu W/cm^2$.

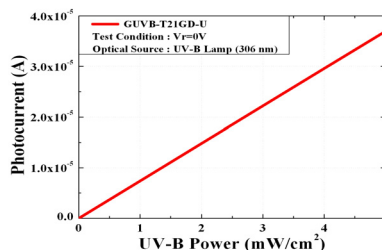
Characteristics (at 25 $^{\circ}C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I_d			90	nA	$V_r = 0.1 V$
Photo Current	I_{ph}		7.4		μA	UVB Lamp, 1mW/cm 2
Temperature Coefficient	I_{tc}		0.1		%/ $^{\circ}C$	UVB Lamp
Responsivity	R		0.13		A/W	$\lambda = 306 nm, V_r = 0 V$
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.