

UV-A Sensor

GUVA-T13GD

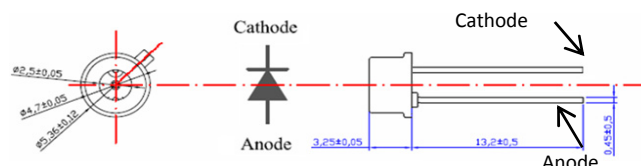


- Features**
- Gallium Nitride Based Material
 - Schottky-type Photodiode
 - Photovoltaic Mode Operation
 - Good Visible Blindness
 - High Responsivity & Low Dark Current



- Applications**
- Full UV Band Monitoring
 - UV-A Lamp Monitoring
 - Sterilization Lamp Monitoring

Outline Diagrams and Dimensions



Absolute Maximum Ratings

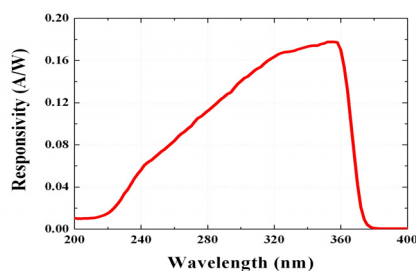
Parameter	Symbol	Min.	Max.	Unit	Remark
Storage Temperature	T_{st}	-40	90	°C	
Operating Temperature	T_{op}	-30	85	°C	
Reverse Voltage	$V_{r, max.}$		5	V	
Forward Current	$I_{f, max.}$		1	mA	
Optical Source Power Range	P_{opt}	0.1 μ	100m	W/cm ²	UVA Lamp
Soldering Temperature	T_{sol}		260	°C	within 10 sec.

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

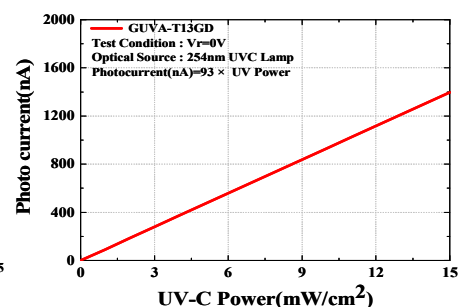
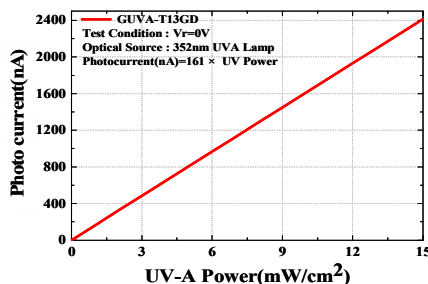
Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I_d			1	nA	$V_r = 0.1$ V
Photo Current	I_{ph}	145	161	177	nA	UVA Lamp, 1mW/cm ²
			93		nA	UVC Lamp, 1mW/cm ²
Temperature Coefficient	I_{tc}		0.05		%/°C	UVA Lamp
Responsivity	R		0.18		A/W	$\lambda = 350$ nm, $V_r = 0$ V
Spectral Detection Range	λ	220		370	nm	10% of R
Active area			0.076		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.