



Electro Optical Components, Inc.

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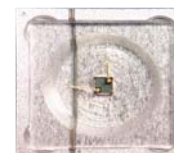
UV-B Sensor

GUVB-S31GD



Features

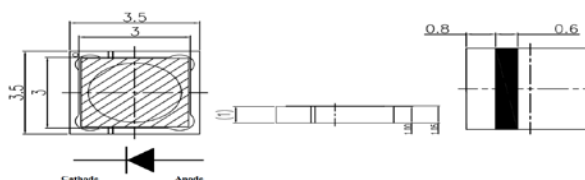
- Aluminium Gallium Nitride Based Material
- Schottky-type Photodiode
- Photovoltaic Mode Operation
- Good Visible Blindness
- High Responsivity & Low Dark Current



Applications

- UV-B Lamp Monitoring
- UV Index Monitoring

Outline Diagrams and Dimensions



Absolute Maximum Ratings

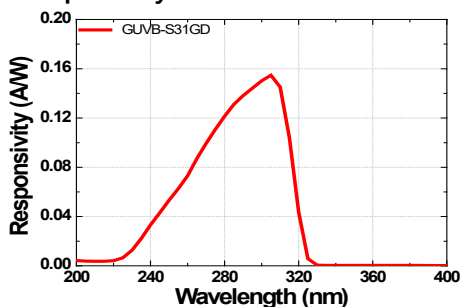
Parameter	Symbol	Min.	Max.	Unit	Remark
Storage Temperature	T_{st}	-40	90	°C	
Operating Temperature	T_{op}	-30	85	°C	
Reverse Voltage	$V_{r, max.}$		3	V	
Forward Current	$I_{f, max.}$		1	mA	
Optical Source Power Range	P_{opt}	0.1μ	100m	W/cm ²	UVC Lamp
Soldering Temperature	T_{sol}		260	°C	within 10 sec.

※Notice: apply to us in the case that Optical Source Power is over 100,000μW/cm².

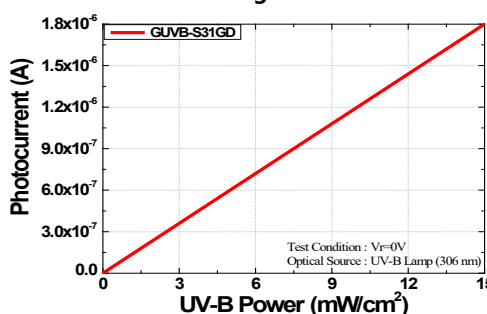
Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I_d			1	nA	$V_r = 0.1$ V
Photo Current	I_{ph}	108	120	132	nA	UVB Lamp, 1mW/cm ²
			1.8			1 UVI
Temperature Coefficient	I_{tc}		0.1		%/°C	UVB Lamp
Responsivity	R		0.15		A/W	$\lambda = 300$ nm, $V_r = 0$ V
Spectral Detection Range	λ	220		320	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.