



# Electro Optical Components, Inc.

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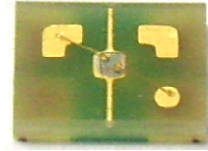


## UV-B Sensor GUVB-C21SD



### Features

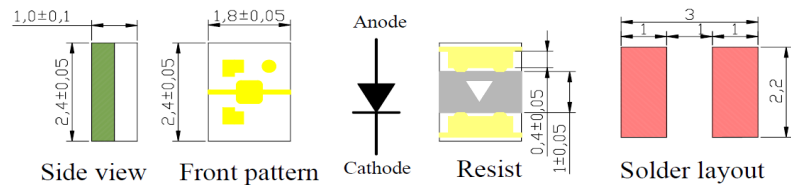
- Aluminium Gallium Nitride Based Material
- Schottky-type Photodiode
- Photovoltaic Mode Operation
- Good Visible Blindness
- High Responsivity & Low Dark Current



### Applications

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	$P_{opt}$	0.1	100,000	$\mu W/cm^2$	UVB Lamp
Soldering Temperature	$T_{sol}$		260	°C	within 10 sec.

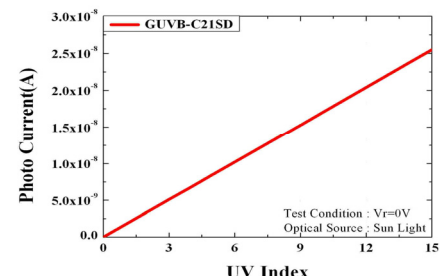
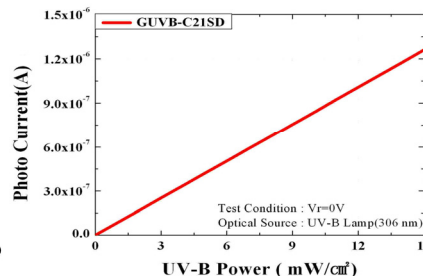
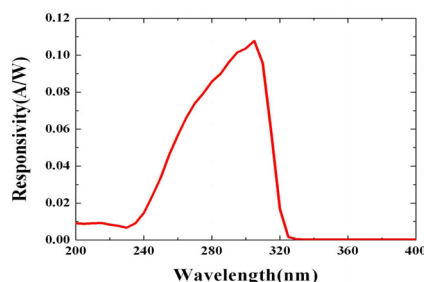
※Notice: apply to us in the case that Optical Source Power is over 100,000  $\mu W/cm^2$ .

### Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	$I_d$			1	nA	$V_r = 0.1 V$
Photo Current	$I_{ph}$		84		nA	UVB Lamp, 1mW/cm <sup>2</sup>
			1.4		nA	1 UVI
Temperature Coefficient	$I_{tc}$		0.1		%/°C	UVB Lamp
Responsivity	R		0.11		A/W	$\lambda = 300 nm, V_r = 0 V$
Spectral Detection Range	$\lambda$	240		320	nm	10% of R
Active area			0.076		mm <sup>2</sup>	

### Responsivity Curve

### Photocurrent along UV Power



### Caution

ESD can damage the device hence please avoid ESD.