



Electro Optical Components, Inc.

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UV-B Sensor GUVB-CS1PD



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



- Applications**
- UV Index Monitoring
 - UV-B Lamp Monitoring

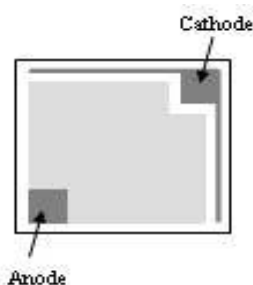
Absolute Maximum Ratings

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	
Soldering Temperature	T_{sol}		260	°C	within 10 sec.

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, 1 mW/cm^2
			1.7		nA	1 UVI
Temperature Coefficient	I_{tc}		0.1		%/°C	UVB Lamp
Responsivity	R		0.14		A/W	$\lambda = 300 \text{ nm}$, $V_r = 0$ V
Spectral Detection Range	λ	220		320	nm	10% of R

Physical Characteristics and Dimensions



- Material : AlGaN / Sapphire
- Chip Size : $0.4 \times 0.4 \text{ mm}^2$
- Active Area : 0.076 mm^2
- Pad Size : $0.12 \times 0.12 \text{ mm}^2$
- Thickness : 0.1 mm

Responsivity Curve

