

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

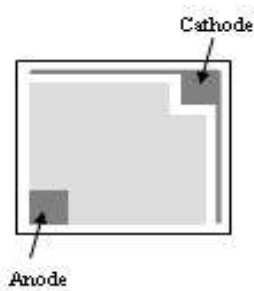
Absolute Maximum Ratings

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	$\lambda = 300$ 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

