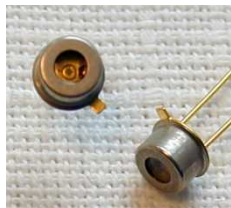


General Features



Properties of the AG28S UV photodiode

- UVC sensitive photodiode
- Active Area A = 0.076 mm²
- TO18 metal housing
- 10mW/cm² peak radiation results a current of approx. 240 nA

About the material (Aluminium) Gallium Nitride (Al)GaN

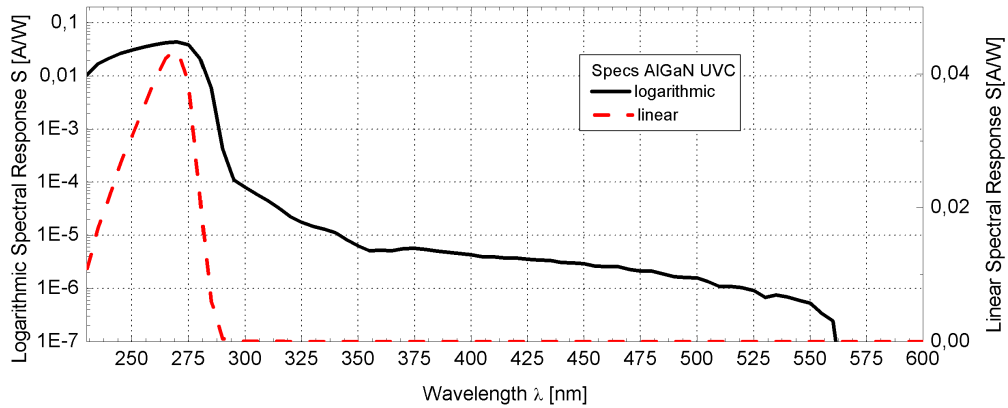
(Al)GaN is a new semiconductor material for visible blind UV photodiodes. By modification of the Al – to - Ga stoichiometry it is possible to produce photodiodes with different spectral behaviour. This allows to offer Photodiodes sensible for broad band UV (UVA+UVB+UVC), for UVB-only and for UVC only without using a filter.

Specifications

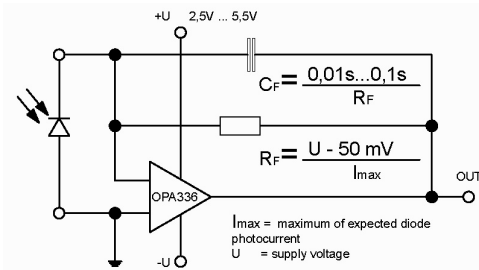
Parameter	Symbol	Value	Unit
Maximum Ratings			
Operating Temperature Range	T_{opt}	-25 ... +70	°C
Storage Temperature Range	T_{stor}	0 ... +100	°C
Soldering Temperature (3s)	T_{sold}	260	°C
Reverse voltage	V_{Rmax}	5	V
General Characteristics (T=25°C)			
Active Area	A	0,076	mm ²
Dark current (1V reverse bias)	I_d	100	fA
Capacitance	C	24	pF
Short circuit (10mW/cm ² at peak)	I_0	240	nA
Temperature coefficient	Tc	<-0.3	%/K
Spectral Characteristics (T=25°C)			
Max. spectral sensitivity	S_{max}	0,045	AW ⁻¹
Wavelength of max. spectral sens.	λ_{max}	270	nm
Sensitivity range (S=0,1*S _{max})	-	220 ... 290	nm
Visible blindness (S _{max} / S _{>400nm})	VB	10 ³	-



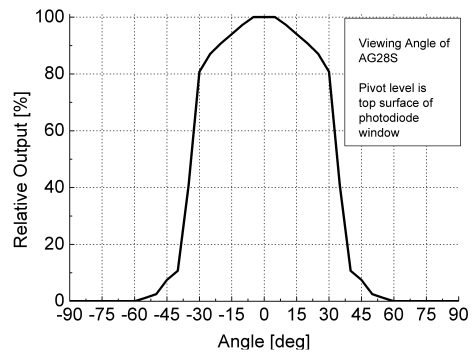
Spectral Response



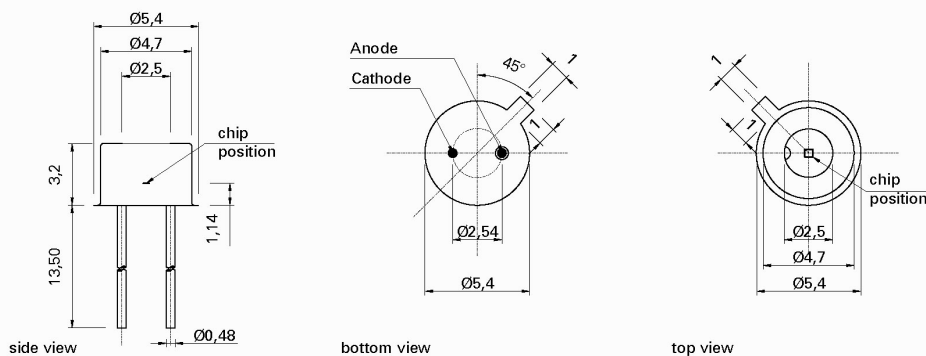
Circuit



Viewing Angle



Drawing

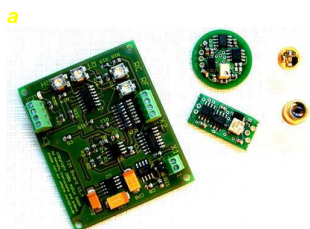


Application Note

For correct reading of the photodiode the current (and NOT the voltage) must be analysed. This requires a short circuiting of the photodiode. Usual approaches are using a **Picoamperemeter** such as Keithley 617 or a **transimpedance amplifier** circuit as shown on page 2 of this datasheet. Please contact us in case of questions.

The below listed modules help you to get the best measurement information from your photodiode.

Internal & external Photodiode Amplifiers



- Stable and reliable photodiode amplification
- TOCON-Series = photodiodes with integrated amplifier
- BOARD-Series = external photodiode amplifiers
- further information: www.scitec.uk.com/uvphotodiodes/tocon_nano or www.scitec.uk.com/uvphotodiodes/amps

UV probes with built in amplifier



- Different housings e.g. with cosine response, water pressure proof or Sapphire windows
- Different electronic outputs available (voltage, current, USB)
- Further information: www.scitec.uk.com/uvphotodiodes/uv_probes

UV Intensity / Dose Monitor / Controller ‘SENSOR MONITOR’



- Two channel photodiode or sensor input
- Three user programmable relay outputs
- Programmable display, USB/TTY/RS232 data transmission
- Further information:
www.scitec.uk.com/uvphotodiodes/uv_controllers

UV Radiation Controller ‘RADIKON’



- Industrial DIN rail radiation controller module
- Works with mV and nA...mA sensor output signals
- Further information: www.scitec.uk.com/uvphotodiodes/radikon