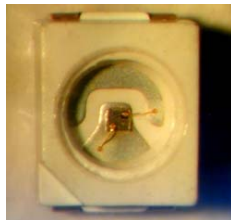


# AG38S-SMD

Broad Band (Al)GaN based UV photodiode  $A = 0,076 \text{ mm}^2$



## General Features



### Properties of the AG38S-SMD UV photodiode

- Broad Band UVA+UVB+UVC photodiode
- Active Area  $A = 0,076 \text{ mm}^2$
- 3528 SMD housing with Si window
- $10 \text{ mW/cm}^2$  peak radiation results a current of approx. 700 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 us to offer Photodiodes sensitive to broad band UV (UVA+UVB+UVC), for UVB-only and for UVC only - without using a filter.

## Specifications

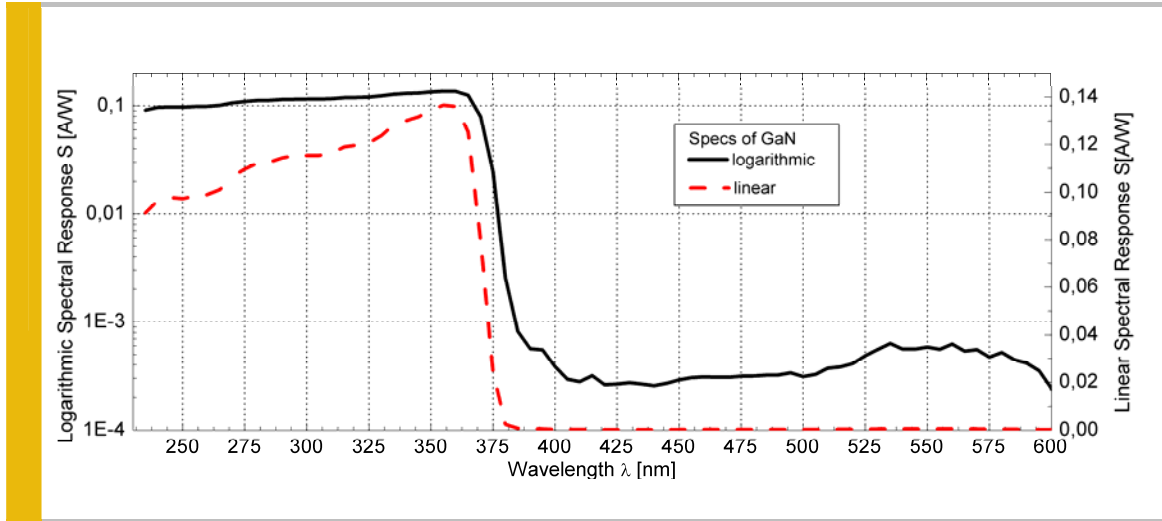
Parameter	Symbol	Value	Unit
<b>Maximum Ratings</b>			
Operating Temperature Range	$T_{\text{opt}}$	-25 ... +70	°C
Storage Temperature Range	$T_{\text{stor}}$	0 ... +100	°C
Soldering Temperature (3s)	$T_{\text{sold}}$	260	°C
Reverse voltage	$V_{\text{Rmax}}$	5	V
<b>General Characteristics (T=25°C)</b>			
Active Area	$A$	0,076	$\text{mm}^2$
Dark current (1V reverse bias)	$I_{\text{d}}$	100	fA
Capacitance	$C$	24	pF
Short circuit (10mW/cm <sup>2</sup> at peak)	$I_0$	700	nA
Temperature coefficient	$T_c$	<-0,3	%/K
<b>Spectral Characteristics (T=25°C)</b>			
Max. spectral sensitivity	$S_{\text{max}}$	0,130	$\text{AW}^{-1}$
Wavelength of max. spectral sens.	$\lambda_{\text{max}}$	350	nm
Sensitivity range ( $S=0,1 \cdot S_{\text{max}}$ )	-	220 ... 370	nm
Visible blindness ( $S_{\text{max}} / S_{>400\text{nm}}$ )	VB	$>10^2$	-

# AG38S-SMD

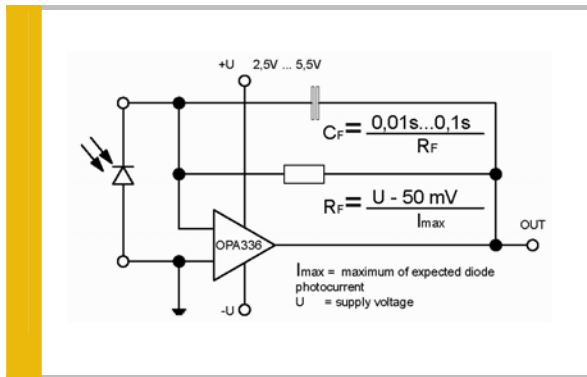
Broad Band (Al)GaN based UV photodiode  $A = 0,076 \text{ mm}^2$



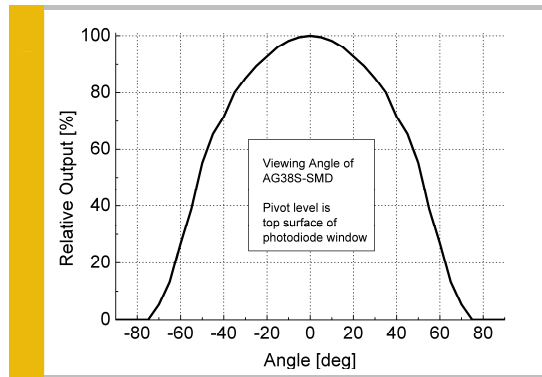
## Spectral Response



## Circuit



## Viewing Angle



## Drawing

