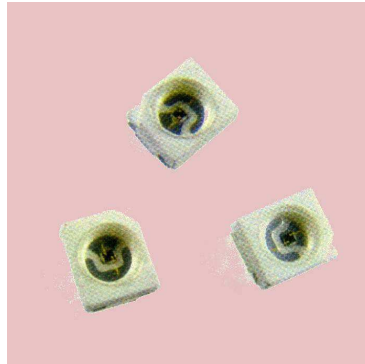


# Ultraviolet selective GaN based UV sensor



## AG38S-SMD

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### **Features**

- Broadband UVA-UVB-UVC selective photodiode
- Optimally suited for low-cost UV consumer applications
- Intrinsically insensitive in the visible due to the wide-bandgap semiconductor material GaN
- SMD package with quartz window
- 0,076 mm<sup>2</sup> active chip area
- High speed and low noise

### **Maximum Ratings**

Parameter	Symbol	Value	Unit
Operating temperature range	T <sub>opt</sub>	-25 ... +80	°C
Reverse voltage	V <sub>Rmax</sub>	5	V

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### General Characteristics

( $T_a = 25\text{ °C}$ )

Parameter	Symbol	Value	Unit
Active area	A	0.076	mm <sup>2</sup>
Dark current at 0.1 V reverse bias	$I_d$	100	fA
Capacitance	C	24	pF
Short circuit current at bright sun	$I_0$	ca. 200	nA

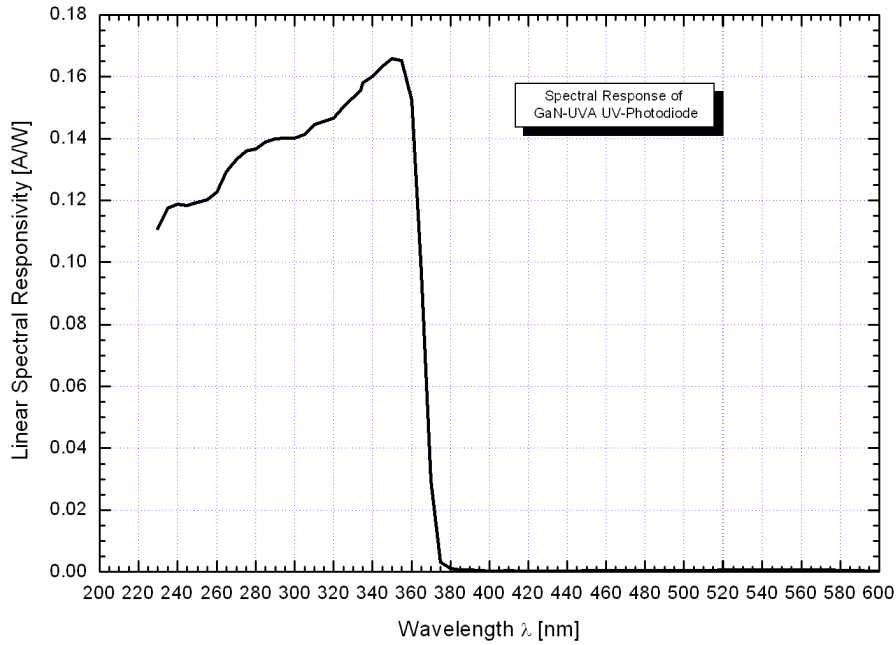
### Spectral Characteristics

( $T_a = 25\text{ °C}$ )

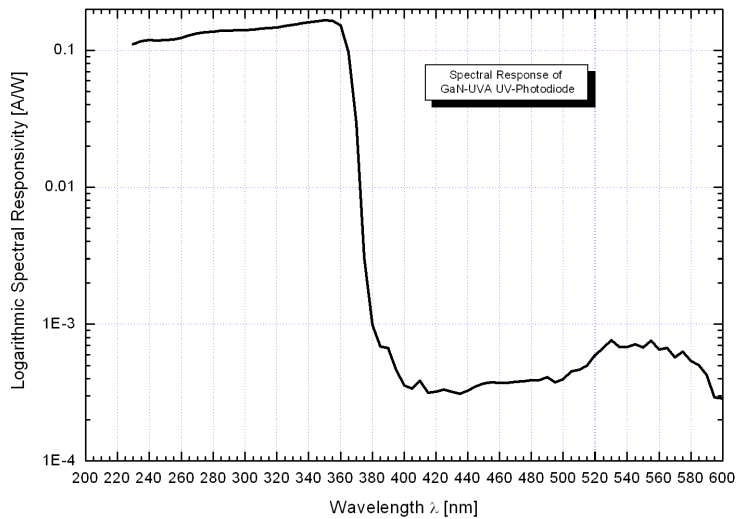
Parameter	Symbol	Value	Unit
Max. spectral sensitivity	$S_{max}$	0.14	A W <sup>-1</sup>
Wavelength of max. spectral sensitivity	$\lambda_{Smax}$	350	nm
Range of spectral sensitivity ( $S=0.1*S_{max}$ )	-	220 - 370	nm



### Linear Spectral Response



### Logarithmic Spectral Response

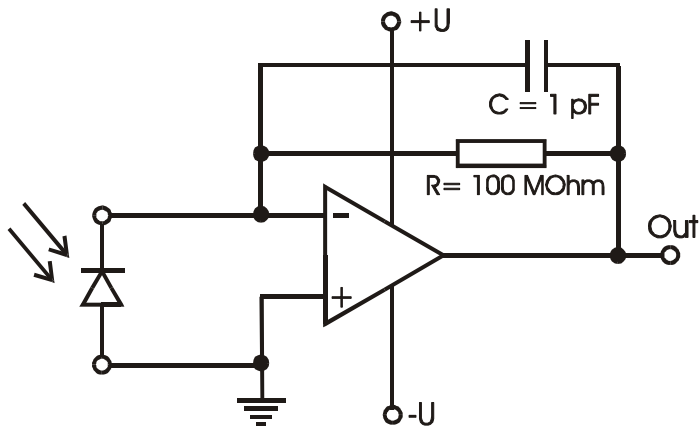


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### Application Example



### Pin Layout

