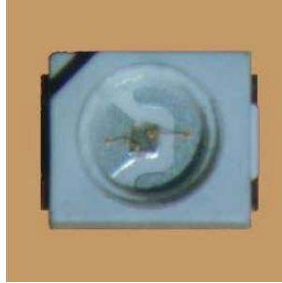


# Ultraviolet selective AlGa<sub>N</sub> based UV sensor

## GUVB-S10GD (AG32S-SMD)



### **Features**

- UVB-UVC selective photodiode
- Optimally suited for low-cost UV consumer applications
- Intrinsicly unresponsive in the visible
- Semiconductor material AlGa<sub>N</sub>
- SMD package with quartz window
- 0,076 mm<sup>2</sup> active chip area
- Wide viewing angle (130°)
- High speed and low noise

### **Eigenschaften**

- Breitbandige UVA-UVB-UVC selektive Photodiode
- Optimale Eignung für kostengünstige UVA-Messung
- Inhärent unempfindlich gegen sichtbares Licht
- Halbleitermaterial AlGa<sub>N</sub>
- SMD Gehäuse mit Quarzfenster
- 0,076 mm<sup>2</sup> aktive Chipfläche
- weiter Öffnungswinkel (130°)
- Schnelle Photodiode mit niedrigem Rauschen

# Ultraviolet selective AlGaIn based UV sensor

## GUVB-S10GD (AG32S-SMD)



### Maximum Ratings

Parameter	Symbol	Value	Unit
Operating temperature range	$T_{opt}$	-30 ... +85	°C
Reverse voltage	$V_{Rmax}$	5	V

### 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. 6	nA

### Spectral Characteristics

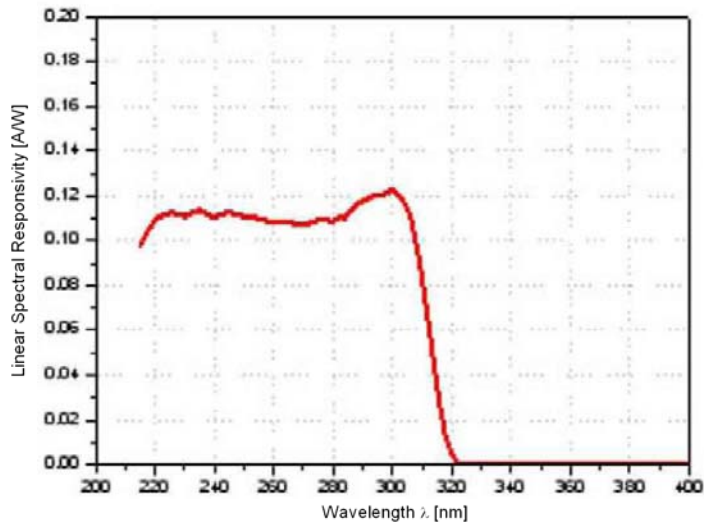
( $T_a = 25\text{ °C}$ )

Parameter	Symbol	Value	Unit
Max. spectral sensitivity	$S_{max}$	0,1	A W <sup>-1</sup>
Wavelength of max. spectral sensitivity	$\lambda_{Smax}$	300	nm
Range of spectral sensitivity ( $S=0.1*S_{max}$ )	-	225-317	nm

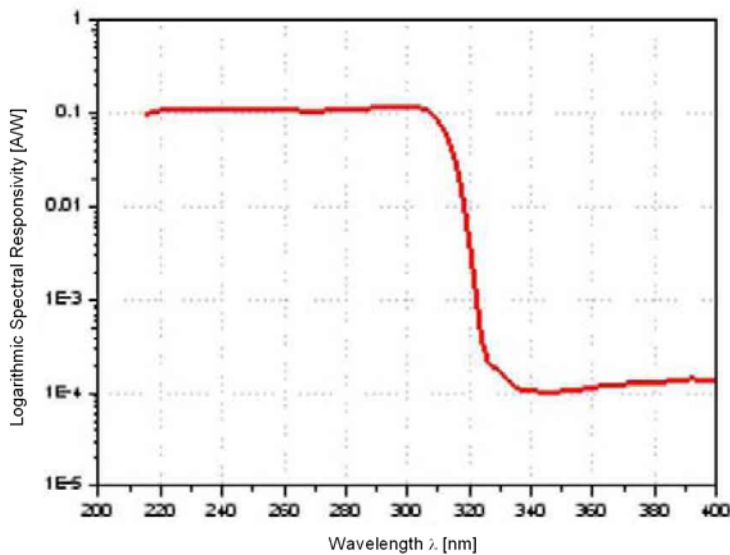
# Ultraviolet selective AlGaN based UV sensor GUVB-S10GD (AG32S-SMD)



## Linear Spectral Response



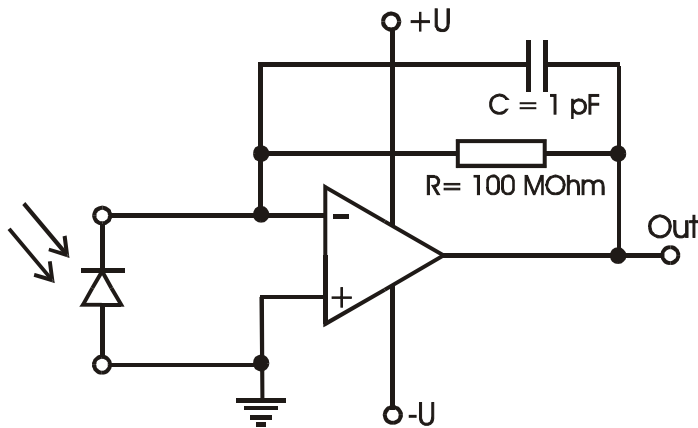
## Logarithmic Spectral Response



# Ultraviolet selective AlGaN based UV sensor GUVB-S10GD (AG32S-SMD)



## Application Examples



## Pin Layout

