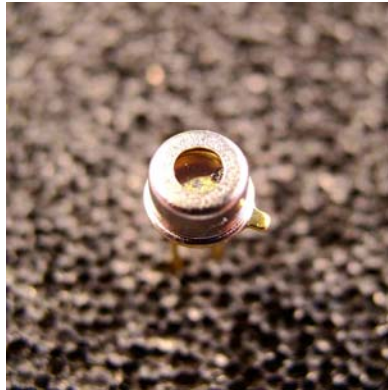


Ultraviolet selective AlGaN based UV sensor

AlGaN-UVB



Features

- UVB & UVC selective photodiode
- Optimally suited for sun-UV dosimetry
- Intrinsicly unresponsive in the UVA and in the visible due to the wide-bandgap semiconductor material AlGaN
- TO-18 metal package with 0,076 mm² active chip area
- High speed and low noise

Eigenschaften

- UVB & UVC selektive Photodiode
- Optimale Eignung für Messung der Sonnen-UV-Strahlung
- Inhärent unempfindlich gegen UVA und sichtbares Licht durch AlGaN-Halbleiter mit hoher Bandlücke
- TO-18 Metallgehäuse mit 0,076 mm² aktiver Chipfläche
- Schnelle Photodiode mit niedrigem Rauschen

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Maximum Ratings

Parameter	Symbol	Value	Unit
Operating temperature range	T_{opt}	-25 ... +80	°C
Reverse voltage	V_{Rmax}	5	V

General Characteristics

($T_a = 25\text{ °C}$)

Parameter	Symbol	Value	Unit
Active area	A	0.076	mm ²
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

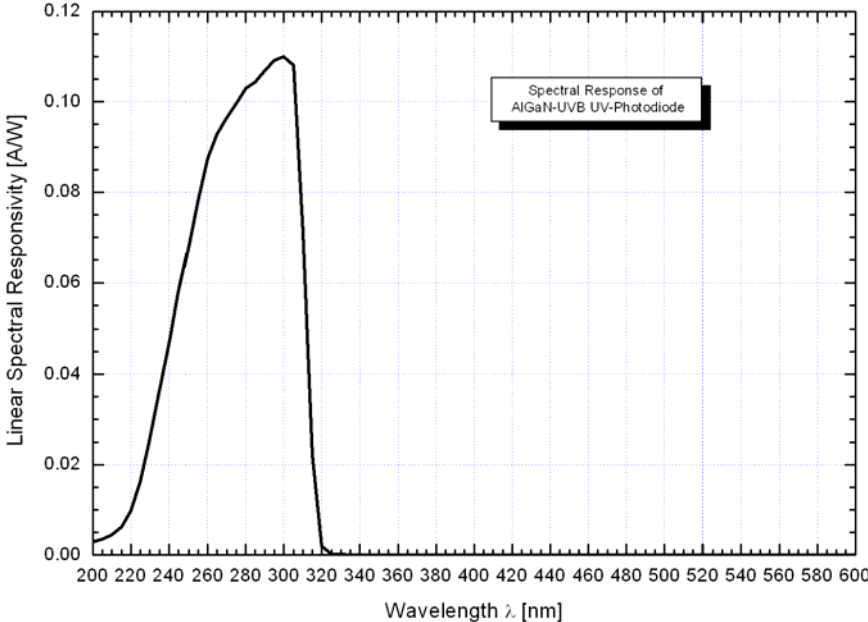
($T_a = 25\text{ °C}$)

Parameter	Symbol	Value	Unit
Max. spectral sensitivity	S_{max}	0.1	A W ⁻¹
Wavelength of max. spectral sensitivity	λ_{Smax}	300	nm
Range of spectral sensitivity ($S=0.1*S_{max}$)	-	225 - 317	nm

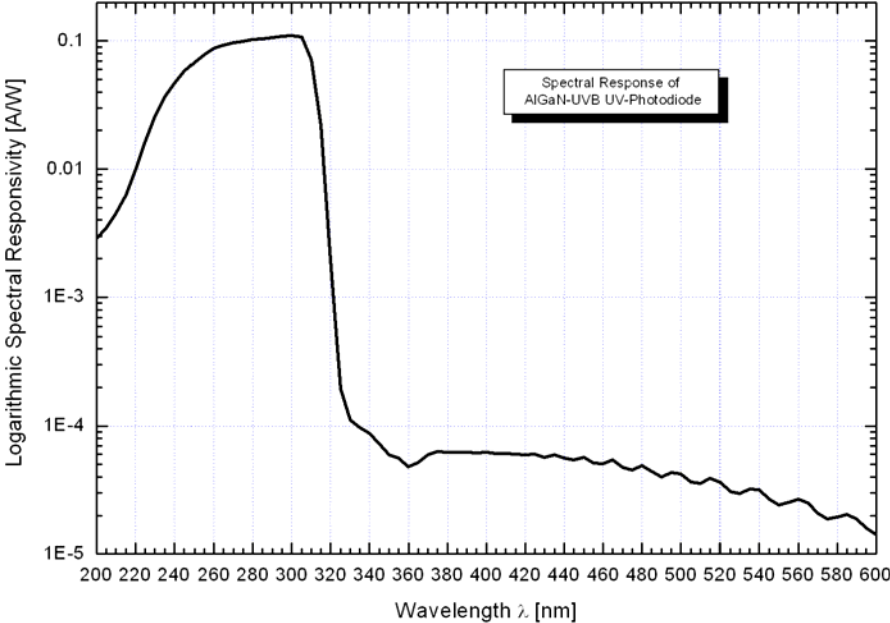
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Linear Spectral Response



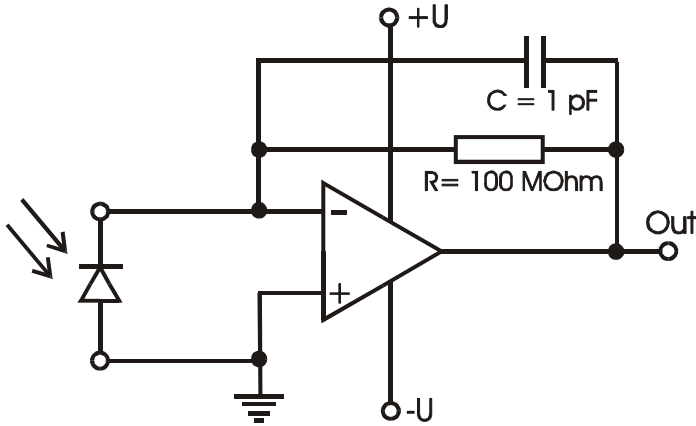
Logarithmic Spectral Response



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Application Example



Pin Layout

Grounded pin: Cathode
Isolated pin: Anode