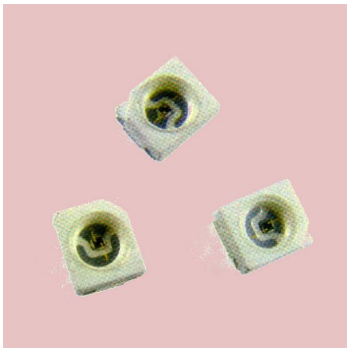
Ultraviolet selective GaN based UV sensor

GUVA-S10GD (AG38S-SMD)



Features

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

Eigenschaften

- Breitbandige UVA-UVB-UVC selektive Photodiode
- Optimale Eignung für kostengünstige UVA-Messung
- Inhärent unempfindlich gegen sichtbares Licht durch GaN-Halbleiter mit hoher Bandlücke
- SMD Gehäuse mit Quarzfenster
- 0,076 mm^2 aktive Chipfläche
- Schnelle Photodiode mit niedrigem Rauschen

Maximum Ratings

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

General Characteristics

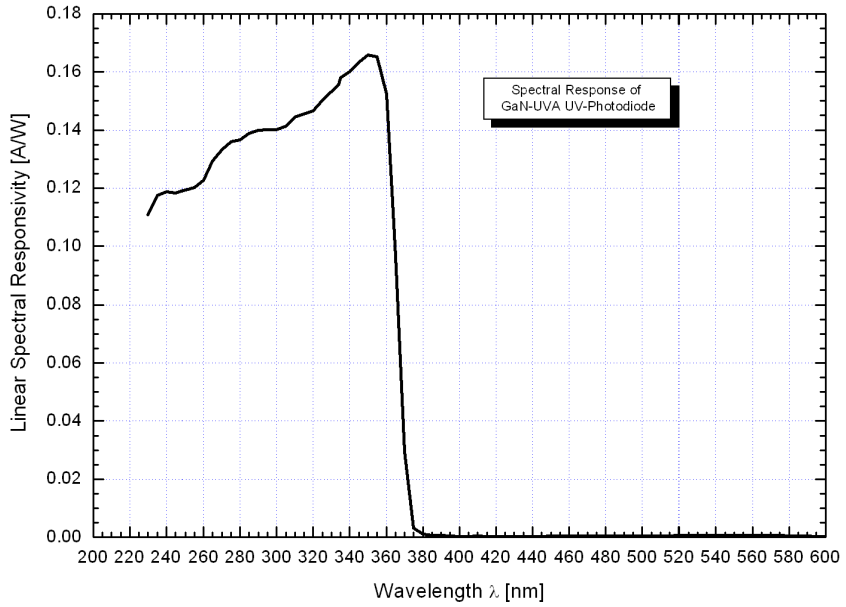
(T_a = 25 °C)

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. 200	nA

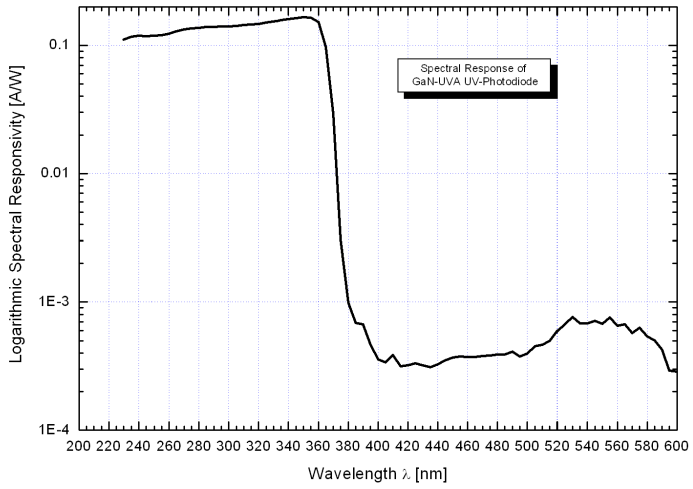
Spectral Characteristics
(T_a = 25 °C)

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

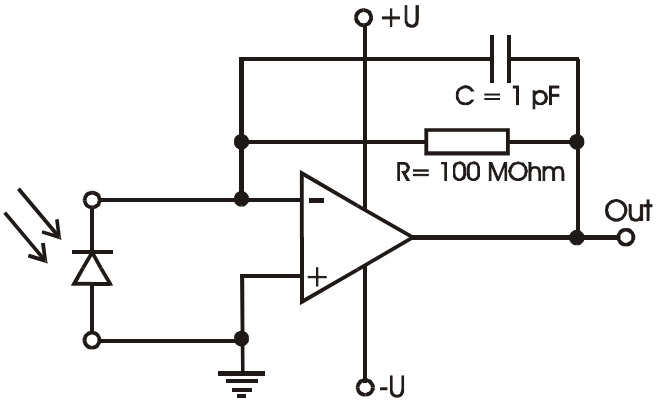
Linear Spectral Response



Logarithmic Spectral Response

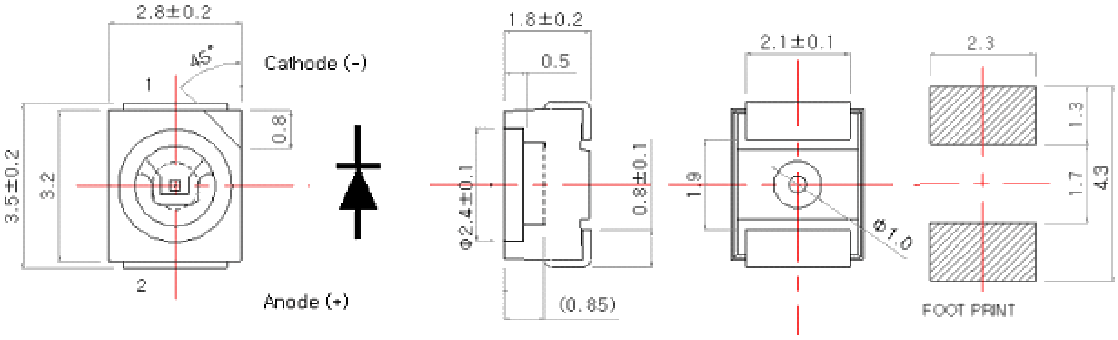


Application Example



Pin Layout

Unit : mm



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