Ultraviolet selective GaN based UV sensor GUVA-S20ED (AG38As-SMD-s)

Features

- UVA selective photodiode
- Optimally suited for low-cost UV consumer applications
- Intrinsicly unsensitive in the visible due to the wide-bandgap semiconductor material GaN
- Small SMD package (1608)
- 0,076 mm^2 active chip area
- High speed and low noise

Eigenschaften

- UVA selektive Photodiode
- Optimale Eignung für kostengünstige UVA-Messung
- Inhärent unempfindlich gegen sichtbares Licht durch GaN-Halbleiter mit hoher Bandlücke
- Kleines SMD Gehäuse (1608)
- 0,076 mm^2 aktive Chipfläche
- Schnelle Photodiode mit niedrigem Rauschen

For price, delivery, and to place orders, please contact **sg***lux* in Germany at
sg*lux* GmbH, Ostendstr. 25, 12459 Berlin, Tel. +49 30 5301 5211, Fax +49 30 5301 5209
or visit our website: sglux.de

Maximum Ratings

Parameter	Symbol	Value	Unit
Operating temperature range	T_{opt}	-40 ... +90	°C
Reverse voltage	V_{Rmax}	5	V

General Characteristics

(T_a = 25 °C)

Parameter	Symbol	Value	Unit
Active area	A	0,076	mm^2
max. Dark current at 1 V reverse bias	I_d	1	nA
Capacitance	C	45	pF
Short circuit current at bright sun	I_0	ca. 200	nA

Spectral Characteristics
(T_a = 25 °C)

Parameter	Symbol	Value	Unit
Responsivity	S_{max}	0,1	A W^{-1}
Wavelength of max. spectral sensitivity	λ_{Smax}	350	nm
Range of spectral sensitivity ($S=0.1*S_{max}$)	-	290-375	nm

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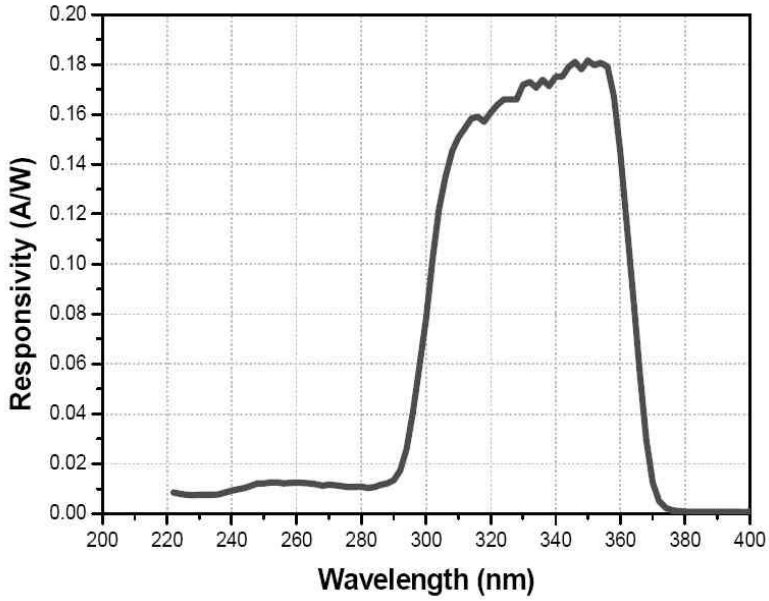
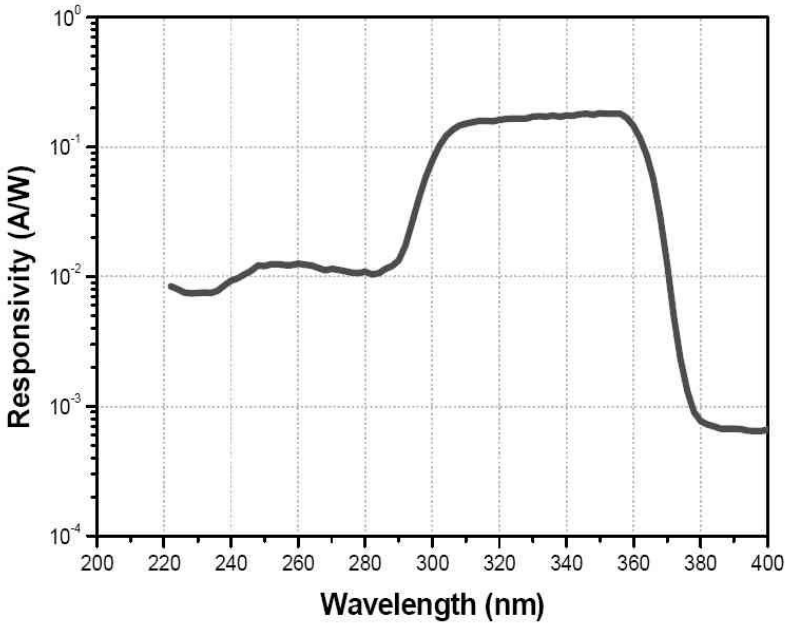
Linear Spectral Response



Logarithmic Spectral Response



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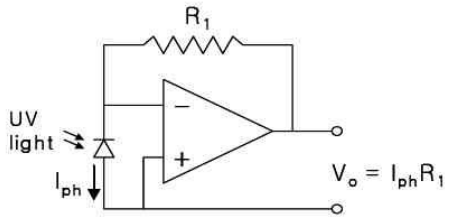
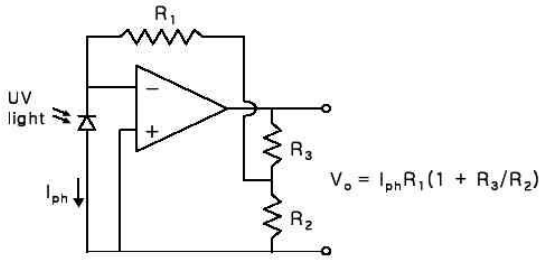
Application Examples

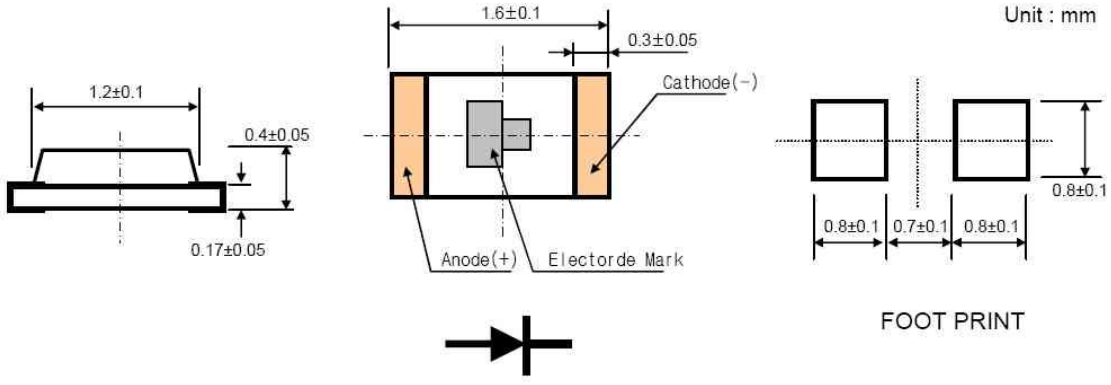
1. Basic Feedback Ammeter



2. Feedback Ammeter with Selective Voltage Gain



Pin Layout



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