

SD008-2161-112



FEATURES

- Schottky-Type Photodiode
- Photovoltaic Mode Operation
- Low Noise
- High Speed
- Visible Blindness
- Isolated Anode and Cathode

DESCRIPTION

The SD008-2171-112 is a AlGaN UVC photodiode with a 0.076 mm² active area. Unlike most UV detectors it cuts off unwanted visible light from its detection spectrum (220-280nm), thereby eliminating the need for optical filter. Photodiode is assembled in a hermetic TO-46 package.

APPLICATIONS

- UVC Detection and Monitoring
- Medical
- Military

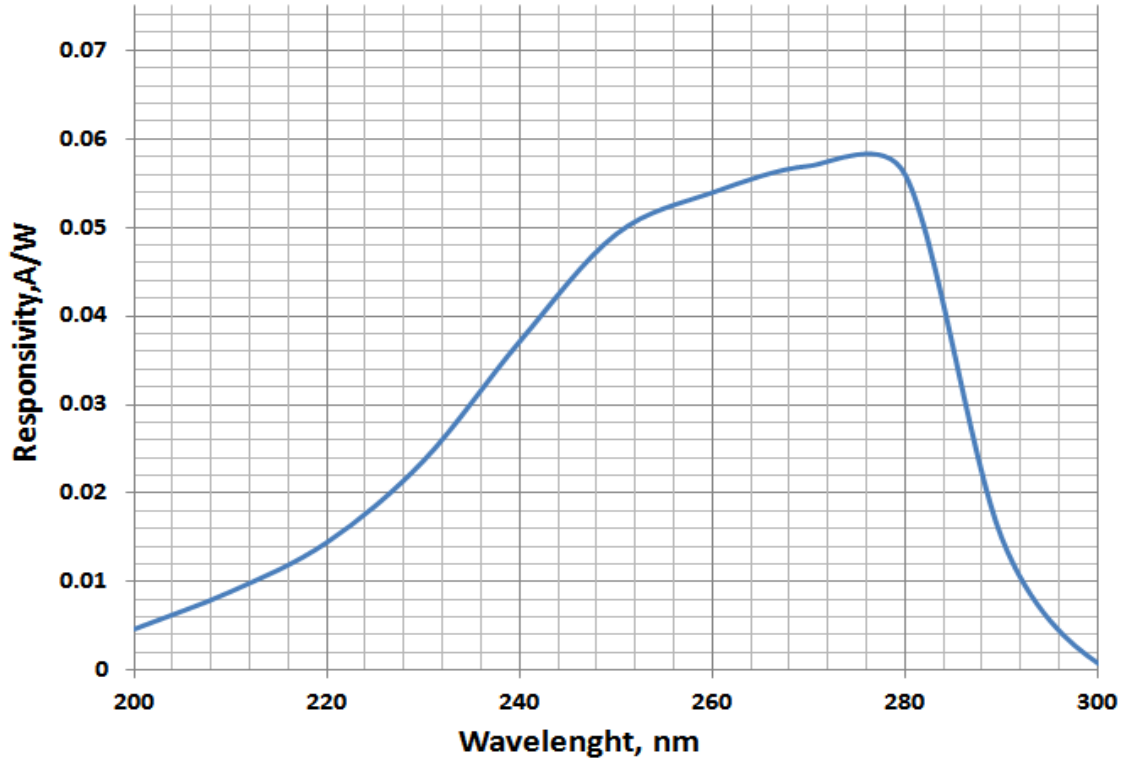
> Absolute Maximum Ratings

Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD008-2171-112	220 to 280	5	-40 to +85	-55 to +125	TO-46

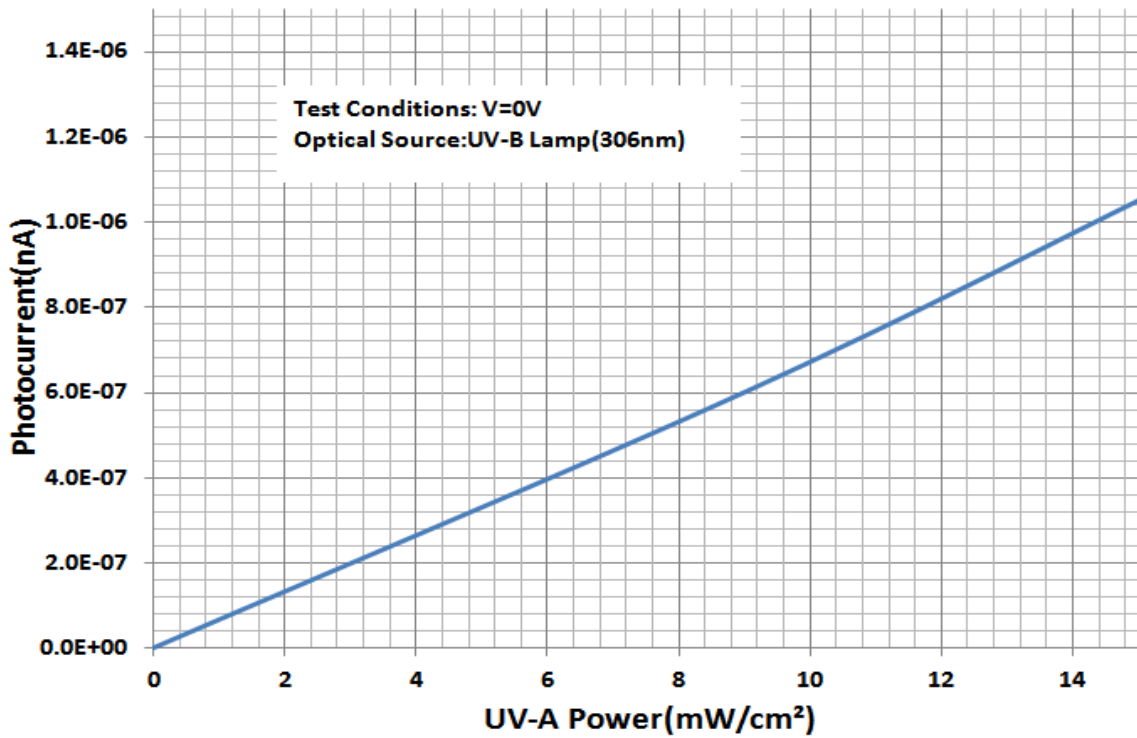
> Electrical and Optical Characteristics

Typical Characteristics (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Dark Current	V _R = 0.1V	I _d	-	1	100	pA
Diode Capacitance	V _{bias} = 0V; f = 1 MHz	C _D	-	5	-	pF
Short Circuit Current	UVI=1.0	I _{sc}	-	20	-	nA
Peak Spectral Sensitivity	λ = 254nm, V _R = 0 V	λ _p	-	0.06	-	A/W
Rise Time		T _r	-	1	-	ns
Fall Time		T _f	-	1	-	ns
Shunt Resistance	V _R = 10mV	R _{sh}	1	100	-	GΩ
Noise Equivalent Power	λ = 254nm	NEP	-	1.6	-	10 ⁻¹⁷ W/Hz ^{0.5}

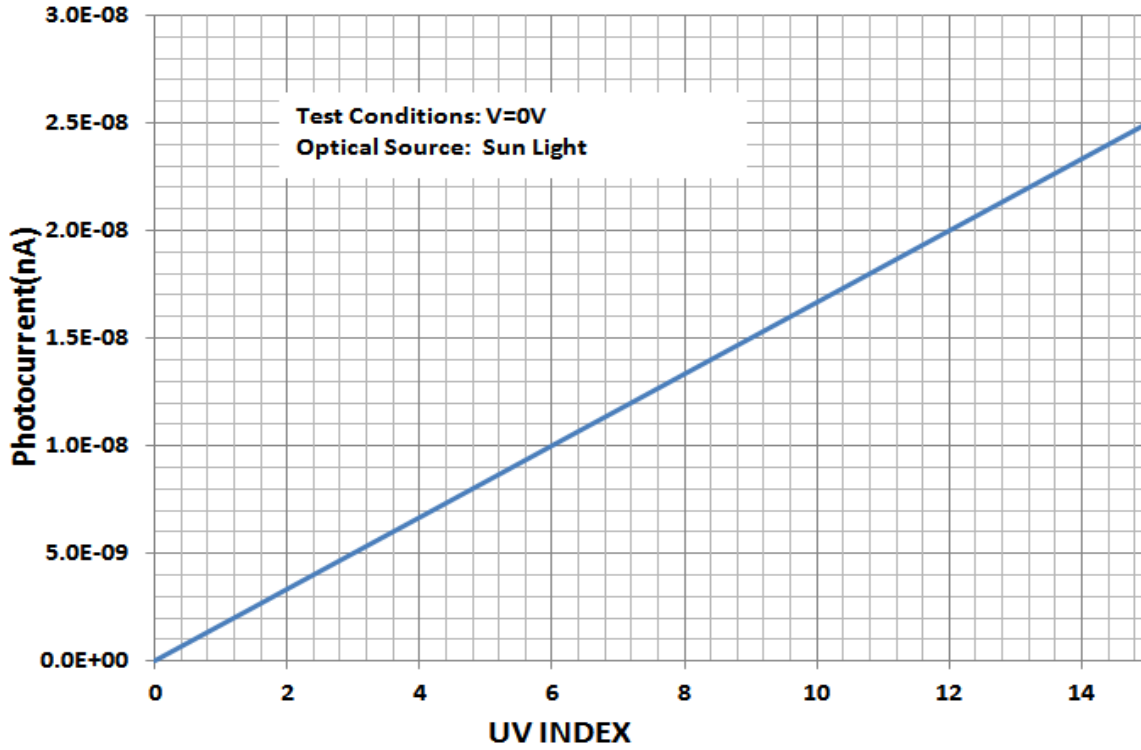
> Spectral Response



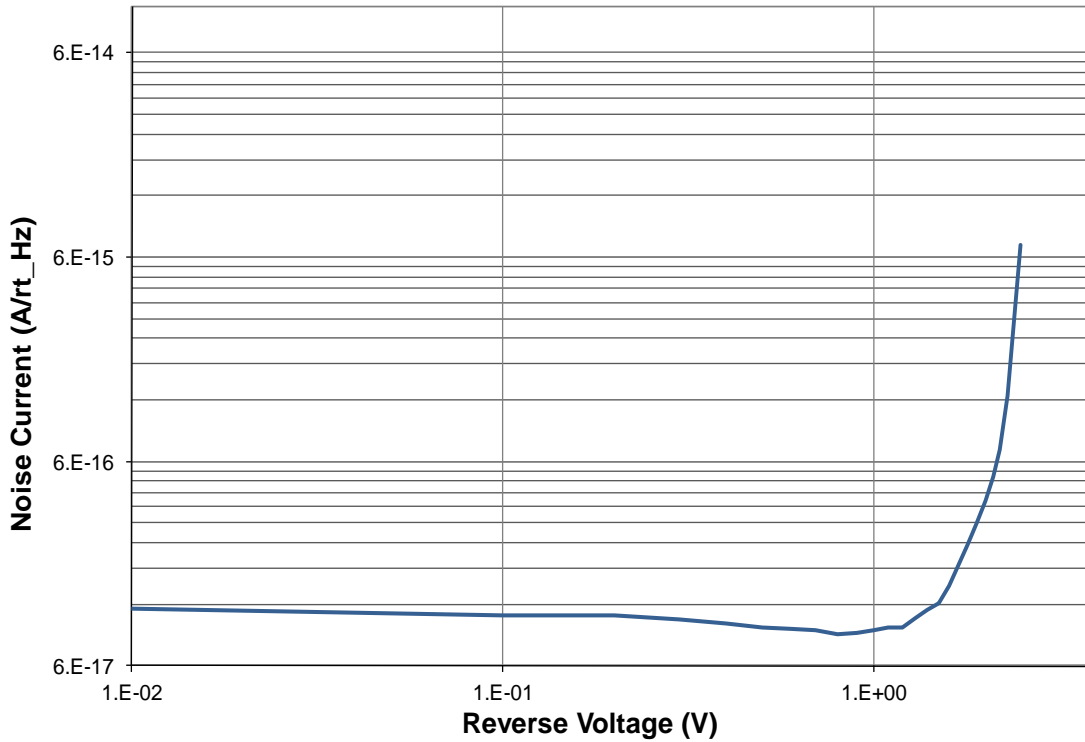
> UV-A Photocurrent



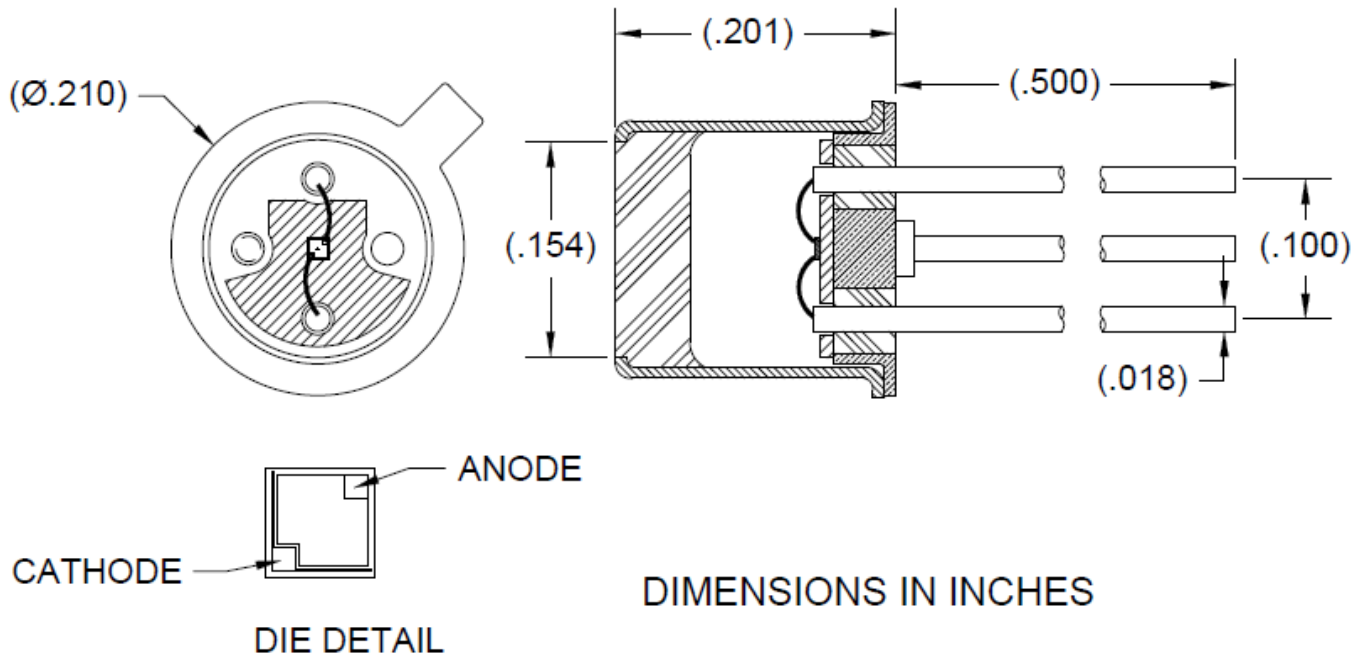
> UV-I Photocurrent



> Noise vs. Bias



> TO-46 Window Cap [SD008-2171-112]



>Soldering Conditions: 260°C 1/16 inch away from case for 3 seconds max.

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MATERIALS SAFETY

This product is free of conflict minerals and meets REACH compliance. Please see website for reports.