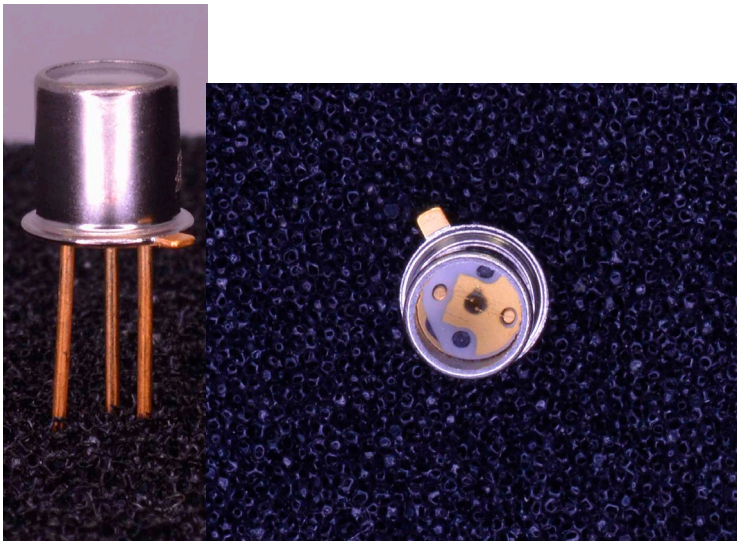
Advanced Photonix
A Division of OSI Optoelectronics

SD008-2171-112

RoHS COMPLIANT



FEATURES

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

DESCRIPTION

The SD008-2171-112 is an AlGaN UVC photodiode with a 0.076 mm^2 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	3	-40 to +85	-55 to +125	TO-46

> Electrical and Optical Characteristics

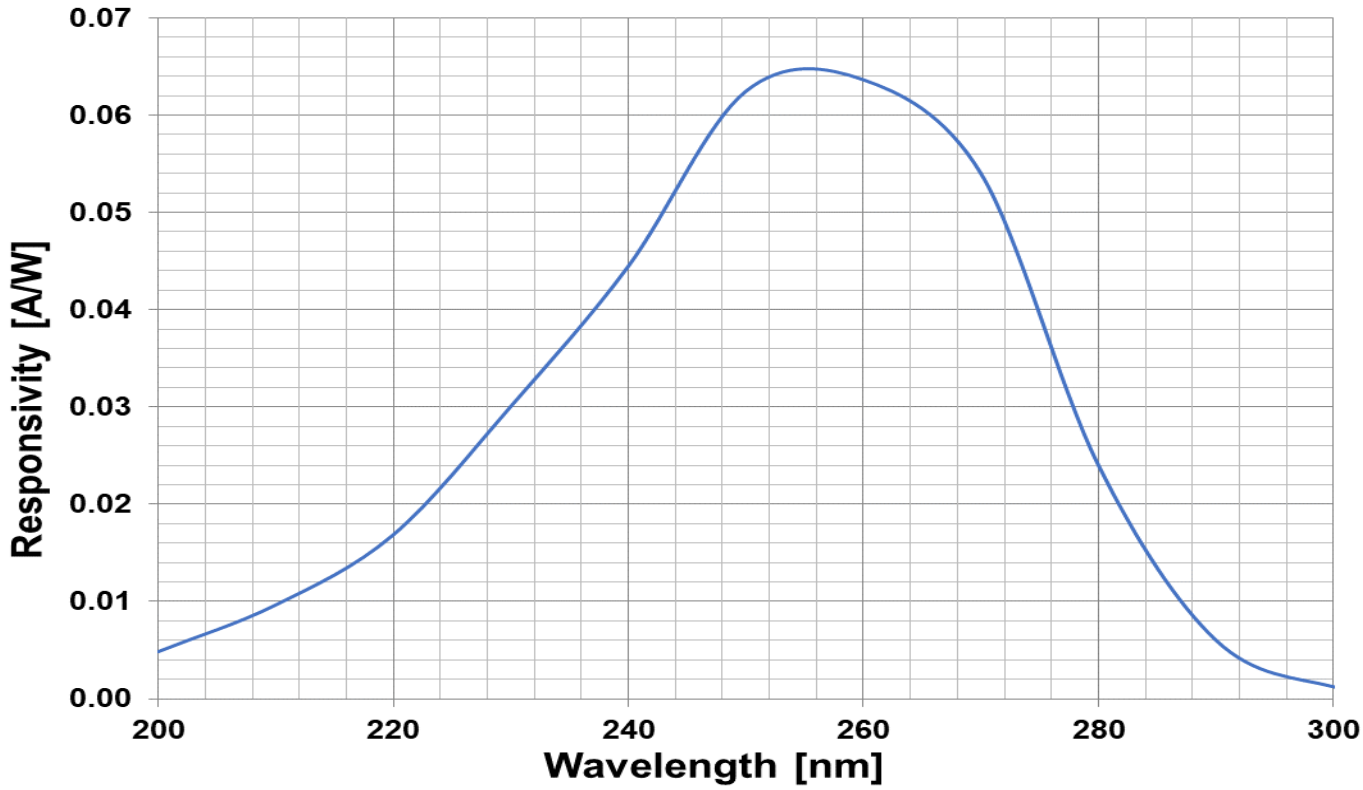
Typical Characteristics (T=23°C unless specified)						
Parameter	**Test Conditions**	**Symbol**	**Min**	**Typical**	**Max**	**Unit**
Dark Current	V_R =0.1V	I_d	-	1	100	pA
Diode Capacitance	V_{bias} = 0V; f = 1 MHz	C_D	-	5	-	pF
Short Circuit Current	UVI=1.0	I_{sc}	-	20	-	nA
Spectral Sensitivity	λ= 254nm, 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	-	$1.6x10^{-17}$	-	$W/Hz^{0.5}$

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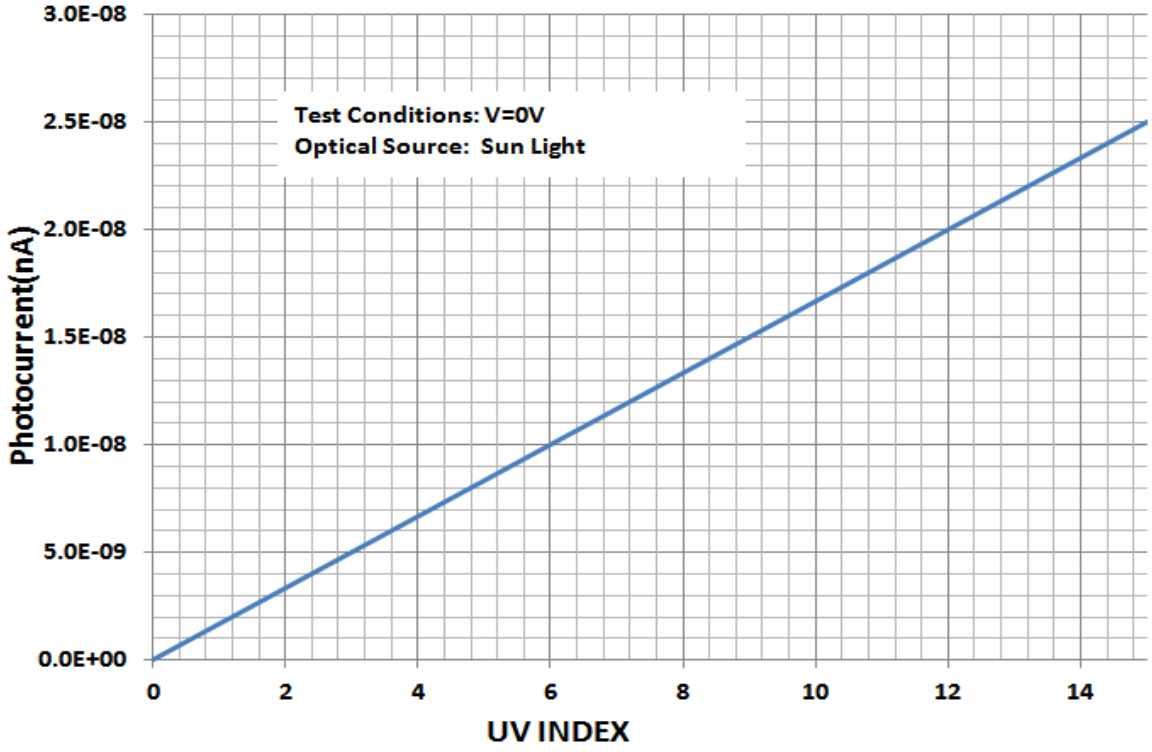
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> Typical Spectral Response



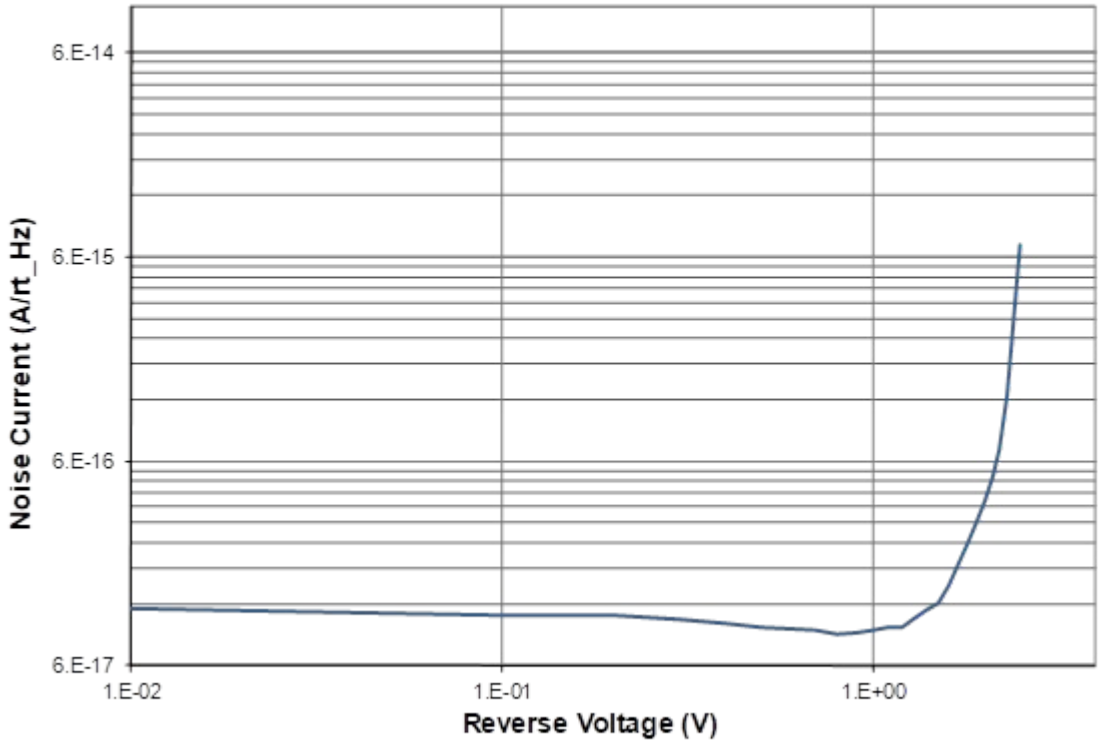
> Typical UV-I Photocurrent



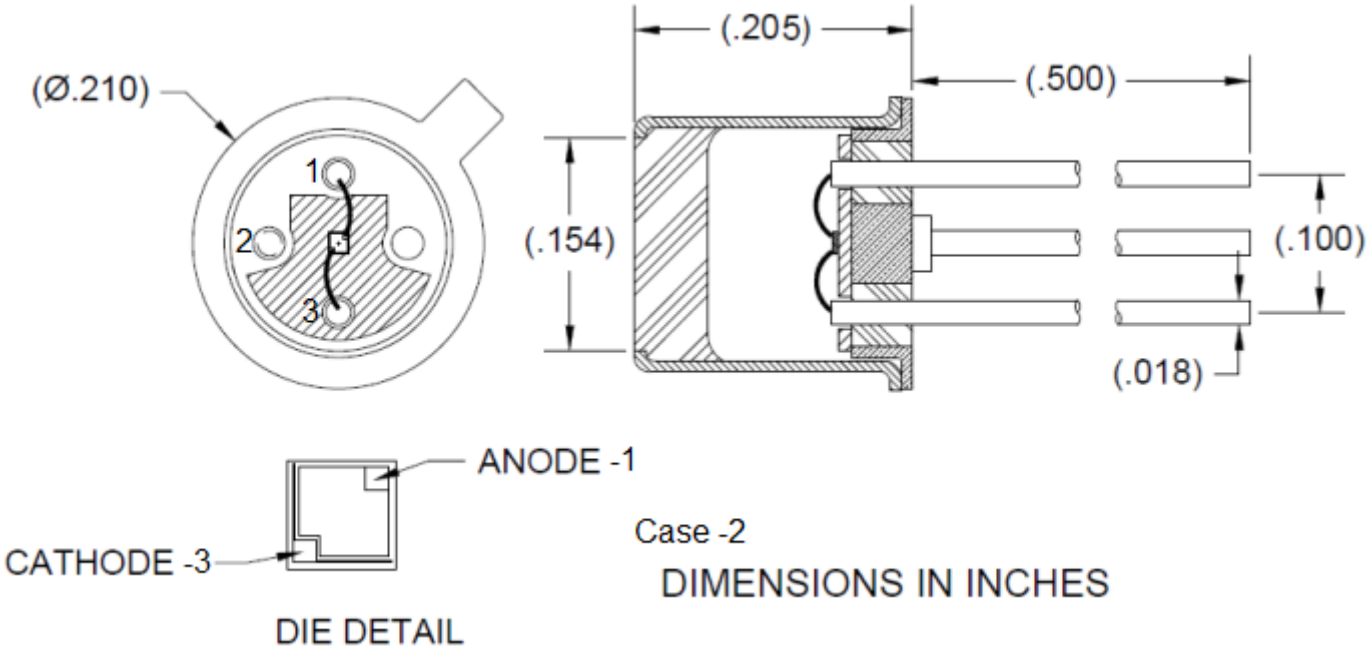
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> Typical Noise vs. Bias



> 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.

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