

An OSI Optoelectronics Company

SD008-2161-112

FEATURES

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



DESCRIPTION

The SD008-2161-112 is a GaN UVB photodiode with a 0.076 mm² active area. Unlike most UV detectors it cuts off unwanted visible light from its detection spectrum (220-320nm), thereby eliminating the need for optical filter. Photodiode is assembled in a hermetic TO-46 package.

APPLICATIONS

- UVB Detection and Monitoring .
- Medical
- Military

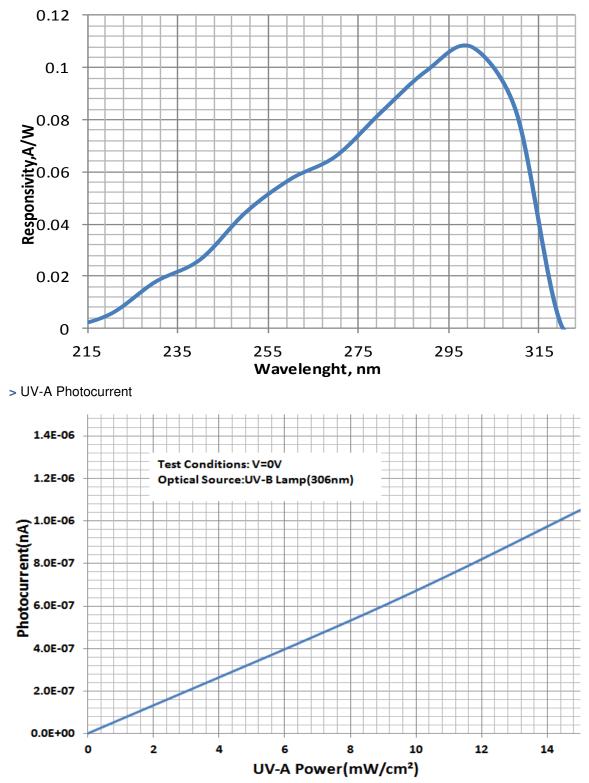
> Absolute Maximum Ratings

Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD008-2161-112	240 to 320	5	-40 to +85	-55 to +125	TO-46

> Electrical and Optical Characteristics

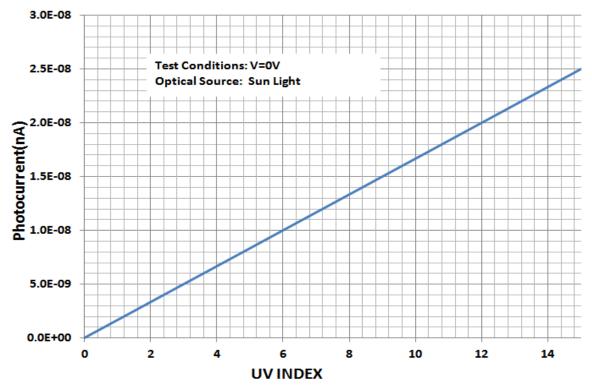
Typical Characteristics (T=23°C unless specified)									
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit			
Dark Current	V _R =0.1V	ld	-	1	100	рА			
Diode Capacitance	$V_{bias} = 0V; f = 1 MHz$	CD	-	5	-	pF			
Short Circuit Current	UVI=1.0	I _{sc}	-	20	-	nA			
Peak Spectral Sensitivity	λ = 300nm, V _R = 0 V	λρ	-	0.1	-	A/W			
Rise Time		Tr	-	1	-	ns			
Fall Time		Tf	-	1	-	ns			
Shunt Resistance	$V_R = 10mV$	R_{sh}	1	100	-	GΩ			
Noise Equivalent Power	λ= 300nm	NEP	-	1.6	-	10 ⁻¹⁷ W/Hz ^{0.5}			

> Spectral Response

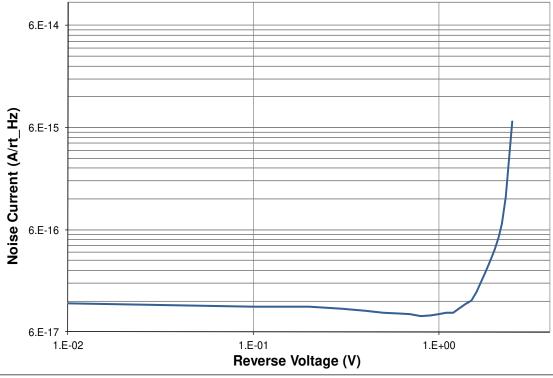


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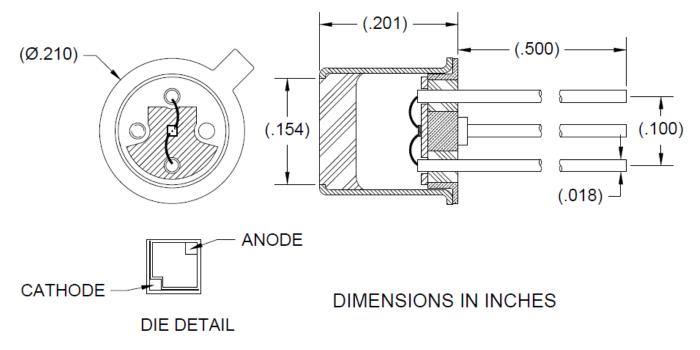
> UV-I Photocurrent



> Noise vs. Bias



Advanced Photonix, 1240 Avenida Acaso, Camarillo CA 93012 • Phone (805) 987-0146 http://www.advancedphotonix.com/ > TO-46 Window Cap [SD008-2161-112]



>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.