

SD112-45-11-221



FEATURES

- Low Noise
- Blue Enhanced
- Single Supply Operation
- Feedback Circuit

DESCRIPTION

The **SD 112-45-11-221** is a detector/amplifier hybrid that combines a silicon photodiode with an opamp with a feedback resistor and capacitor, available in a hermetic TO-5 metal can package.

APPLICATIONS

- Military
- Industrial
- Medical

> Absolute Maximum Ratings

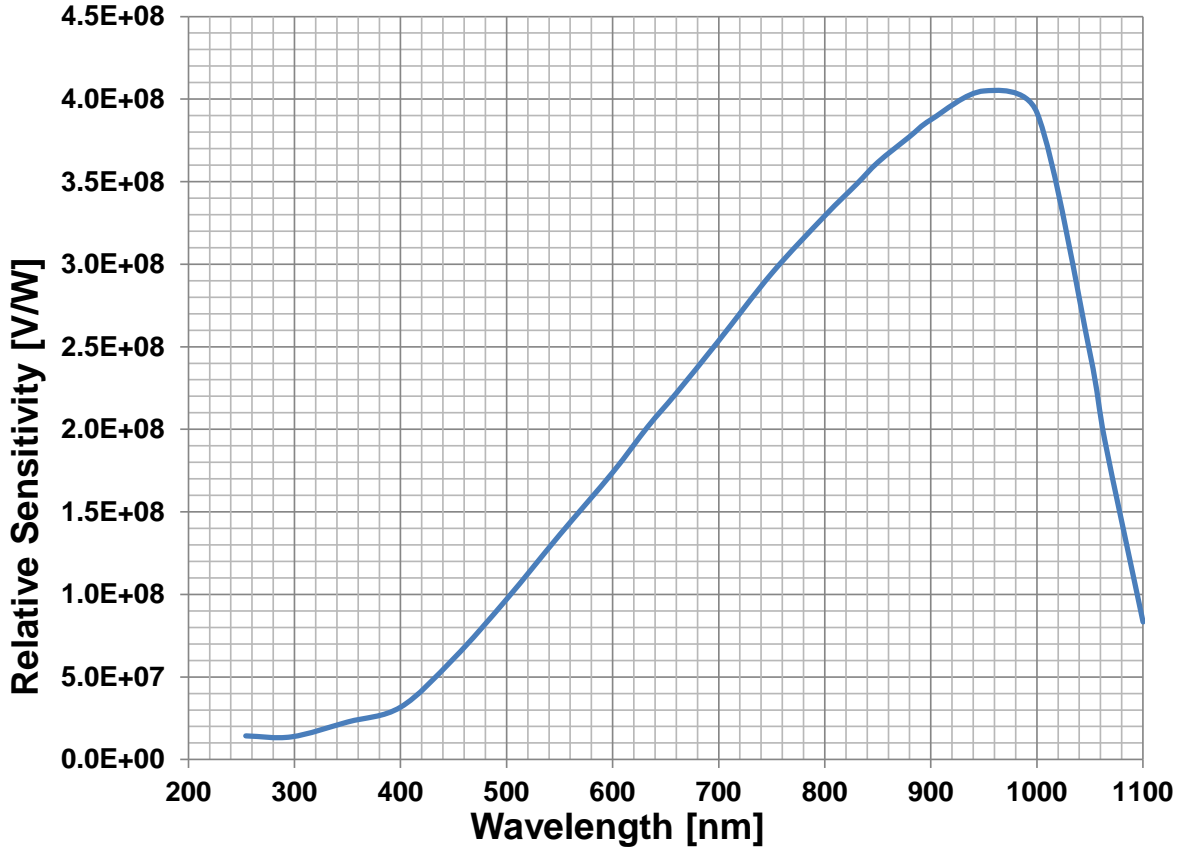
Part No.	Wavelength Range [nm]	Supply Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD112-45-11-221	300 to 1100	5 to 15*	-25 to +100	-55 to +125	TO-5

*Single supply

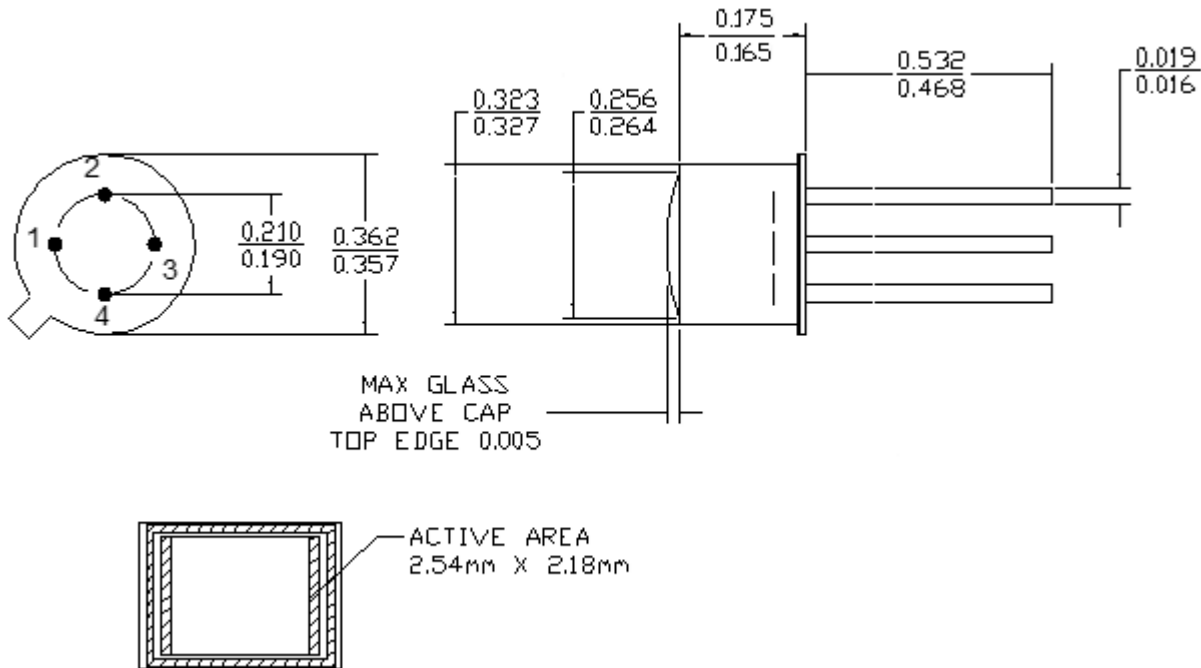
> Electrical and Optical Characteristics

Typical Characteristics per elements (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Cutoff Frequency	-	f _{3db}	-	0.13	-	KHz
Transimpedance Gain	-	Gain	-	600	-	MΩ
Sensitivity	λ= 633 nm	S	2.4x10 ⁸	2.8x10 ⁸	-	V/W
Output Offset Voltage	-	V _{os}	-	0.08	1	mV
Broadband Noise	f= 0.01Hz to 135 Hz	V _n	-	-	52	uV _{rms}
Noise Equivalent Power	f= 0.01Hz to 135 Hz	NEP	-	3.5x10 ⁻¹⁴	-	W/√Hz
Supply Current	-	I _s	-	850	950	uA
Output Voltage Swing	-	V _{osw}	0 to 4.7	-	0 to 14.7	V

> Typical Spectral Response



> Package Dimensions



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