

# SD0800-3111-185



## FEATURES

- Low Noise
- Low Dark Current and Capacitance
- High Sensitivity
- Detection in SWIR

## DESCRIPTION

The SD0800-3111-185 is a high sensitivity, low noise, 1 mm diameter active area InGaAs photodiode for detection at SWIR, NIR wavelengths for imaging and sensing applications. The photodetector is assembled in a 1210 package.

## APPLICATIONS

- Industrial Sensing
- Security
- Communication
- Medical

### > Absolute Maximum Ratings

Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD0800-3111-185	900 to 1700	20	-40 to +100	-55 to +125	1210

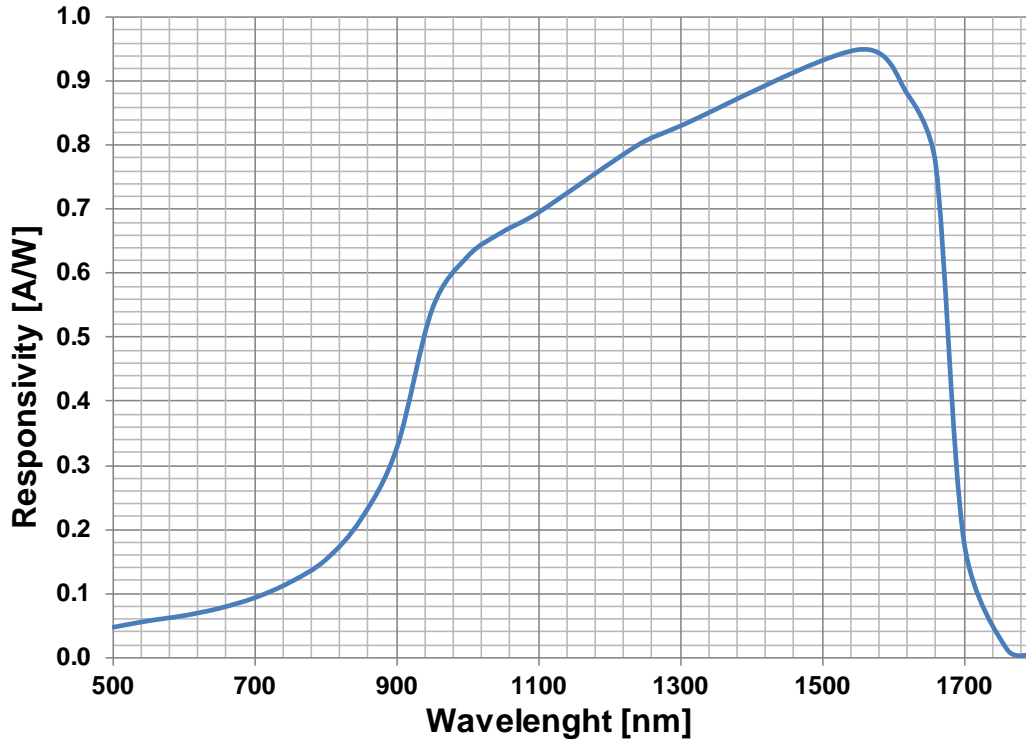
### > Electrical and Optical Characteristics

Typical Characteristics (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Breakdown Voltage	I <sub>R</sub> =1μA	V <sub>BD</sub>	20	-	-	V
Dark Current	V <sub>R</sub> =1V	I <sub>d</sub>	-	0.5	5	nA
Forward Voltage	I <sub>f</sub> =3mA	V <sub>f</sub>	-	-	0.8	V
Diode Capacitance	V <sub>R</sub> =5V, F=1MHz	C <sub>D</sub>	-	75	100	pF
Angle of Sensitivity		φ	-	65	-	+/- deg
Shunt Resistance	V=10mA	R <sub>s</sub>	40	-	-	MΩ
Responsivity	V <sub>R</sub> =5V, λ=1300nm	R	0.8	0.83	-	A/W
	V <sub>R</sub> =5V, λ=1550nm		0.9	0.95	-	

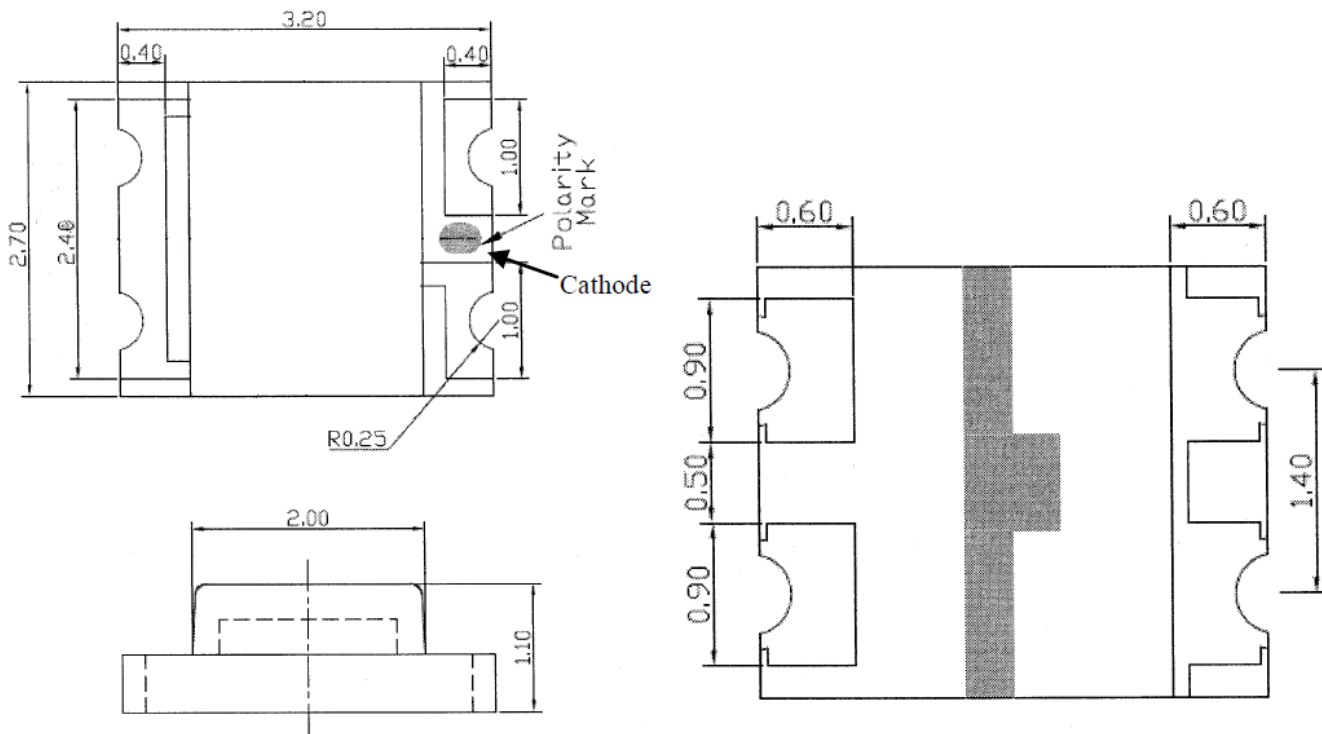
### > Soldering

Recommendation		
Wave	Not Advised	-
IR Oven Reflow	Allowed	See Reflow Profile
Forced Convection Reflow	Recommended	See Reflow Profile
Convection Reflow	Recommended	See Reflow Profile
Vapor Phase Reflow	Recommended	See Reflow Profile
Manual	Allowed	260°C for 3 seconds max.
Moisture Sensitivity Level	3	J-STD-033

> Spectral Response



> 1210 Package



>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.*