

SD0090-3111-185



FEATURES

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

DESCRIPTION

The SD0090-3111-185 is a high sensitivity, low noise, 0.3 mm diameter active area InGaAs photodiode for detection at SWIR, NIR wavelengths for imaging and sensing applications. The photodetector is assembled in an 1206 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
SD0090-3111-185	900 to 1700	20	-40 to +100	-55 to +125	1206

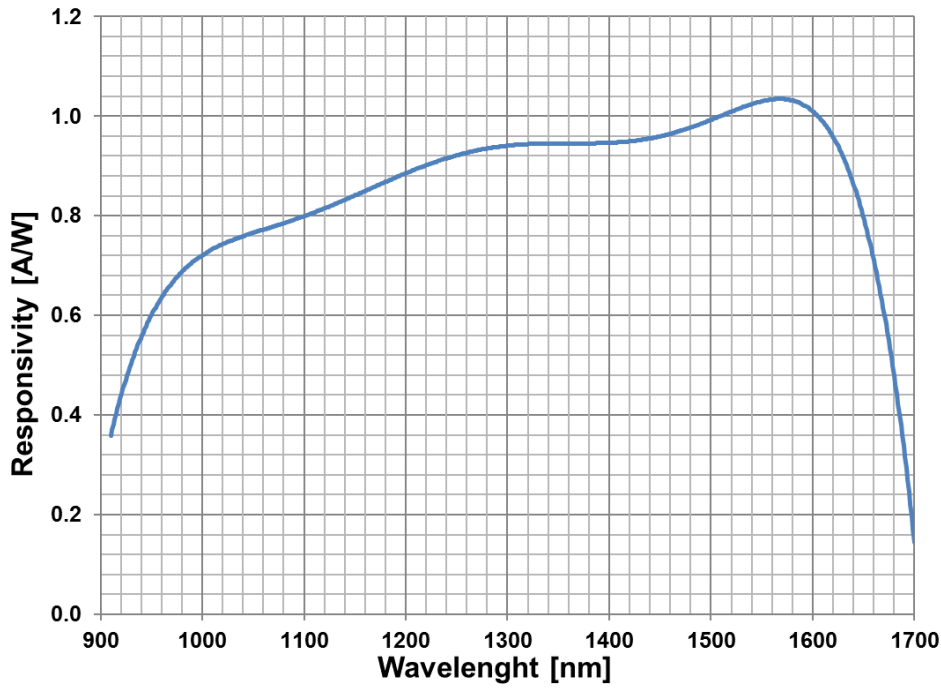
> Electrical and Optical Characteristics

Typical Characteristics (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Breakdown Voltage	I _R =1μA	V _{BD}	20	-	-	V
Dark Current	V _R =10V	I _d	-	0.2	1	nA
Forward Voltage	I _f =3mA	V _f	-	0.6	0.8	V
Diode Capacitance	V _R =5V, F=1MHz	C _D	-	5	6	pF
Full Width at Half Max.		φ	-	65	-	+/- deg
Shunt Resistance	V=10mA	R _s	40	-	-	MΩ
Responsivity	V _R =5V, λ=1300nm	R	0.9	0.95	-	A/W
	V _R =5V, λ=1500nm		0.95	1	-	

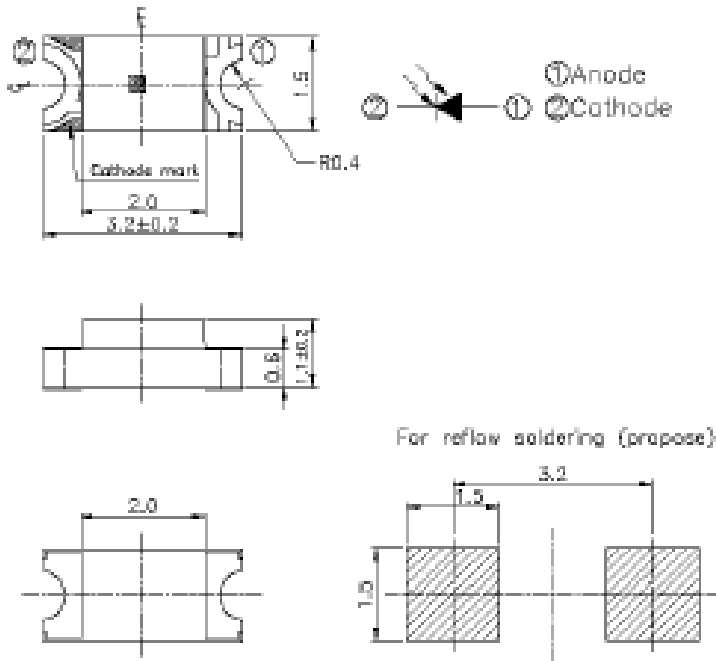
> Soldering

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



> 1206 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.