

### FEATURES

- Low Noise
- Low Dark Current and Capacitance
- High Sensitivity
- Detection in LWIR
- Hermetic

### DESCRIPTION

The SD0050-3111-011 is a high sensitivity, low noise, 0.25 mm diameter active area InGaAs photodiode for detection at SWIR, NIR wavelengths for imaging and sensing applications. The photodetector is assembled in a TO-46 package with a flat window cap.

### APPLICATIONS

- Industrial Sensing
- Security
- Communication
- Medical

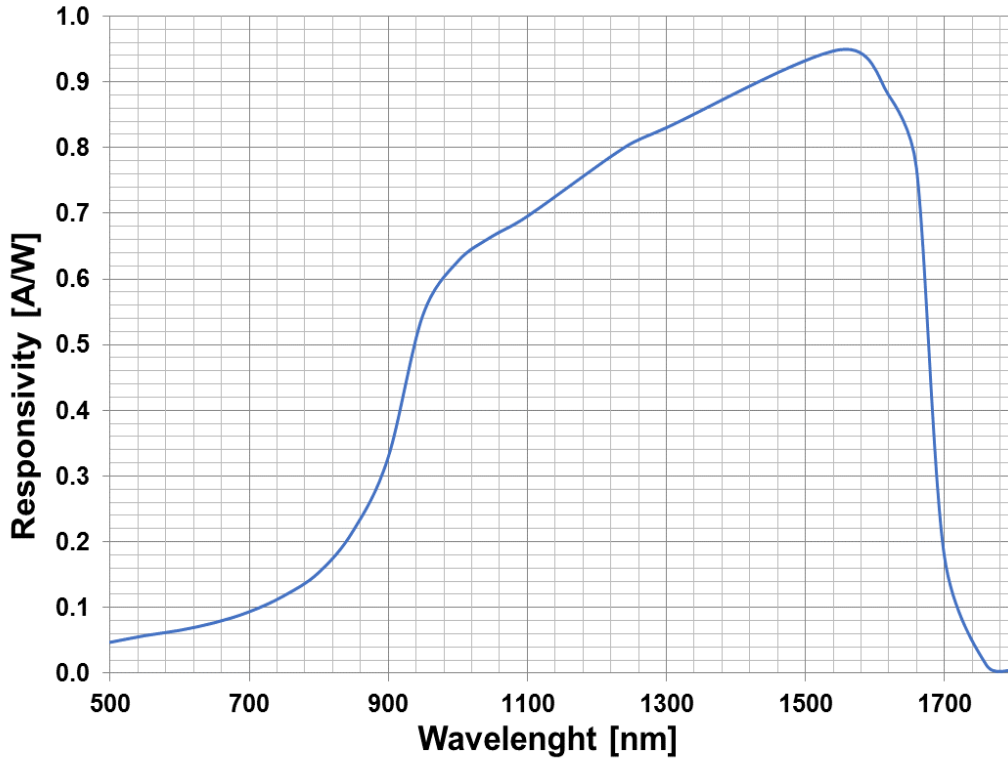
#### > Absolute Maximum Ratings

Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD0050-3111-011	900 to 1700	20	-40 to +100	-55 to +125	TO-46

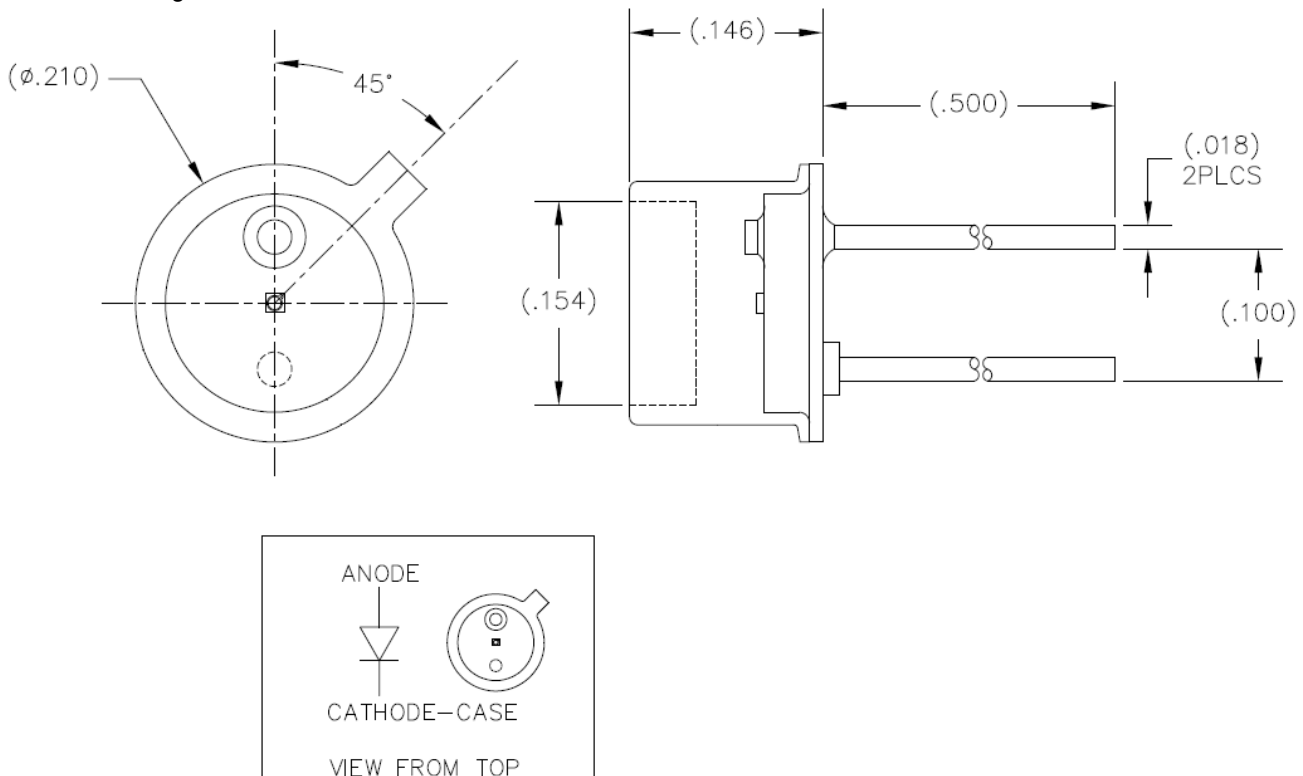
#### > Electrical and Optical Characteristics

Typical Characteristics (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Breakdown Voltage	$I_R=1\mu A$	$V_{BD}$	35	-	-	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	$V_R=5V, F=1MHz$	$C_D$	-	-	6	pF
Shunt Resistance	$V=10mA$	$R_s$	40	-	-	MΩ
Responsivity	$V_R=5V, \lambda=1300nm$	R	0.8	0.83	-	A/W
	$V_R=5V, \lambda=1550nm$		0.9	0.95	-	

> Spectral Response



> TO-46 Package



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

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## MATERIALS SAFETY

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