



FEATURES

- 200 μm Circular Active Area
- Fast Response
- Low Capacitance
- Hermetically Sealed Package
- Low Noise
- High Gain

APPLICATIONS

- LiDAR (Light Detection and Ranging)
- Laser Range Finder
- Particle Sizing
- DNA Sequencer
- Spectrometers
- Free Space Communication

Electro-Optical Characteristics at 25 °C

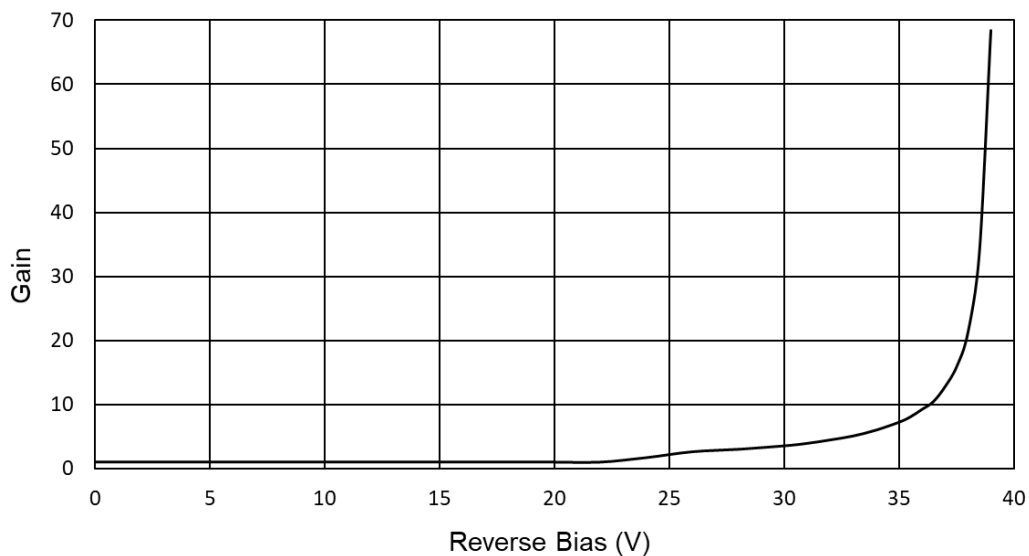
Parameters	Test Conditions	Min	Typ.	Max	Units
Active Area	$\Phi 0.2 \text{ mm}$		0.031		mm^2
Spectrum Response	-	900nm – 1700nm			
Responsivity	$\lambda = 1550\text{nm}$, $M = 1$	0.9	1.0	-	A/W
V_{OP} (Gain = M)	$\lambda = 1550\text{nm}$, $M = 10$	32	-	50	-
	$\lambda = 1550\text{nm}$, $M = 30$	34	-	50	-
Dark Current, I_d	$M = 10$	-	8.0	50.0	nA
	$M = 30$	-	8.0	50.0	nA
-3dB Cut-Off- Frequency (BW)	$M = 10$, $R_L = 50\Omega$	0.6	1.25	-	GHz
Capacitance, C	$M = 10$, $f = 1\text{MHz}$	-	1.8	2.0	pF
Temperature Coefficient	$I_R = 10\mu\text{A}$, $-55^\circ\text{C} \sim 85^\circ\text{C}$	0.07	0.11	0.15	V/ $^\circ\text{C}$
Package	-	TO - 46			-

Thermal Parameters

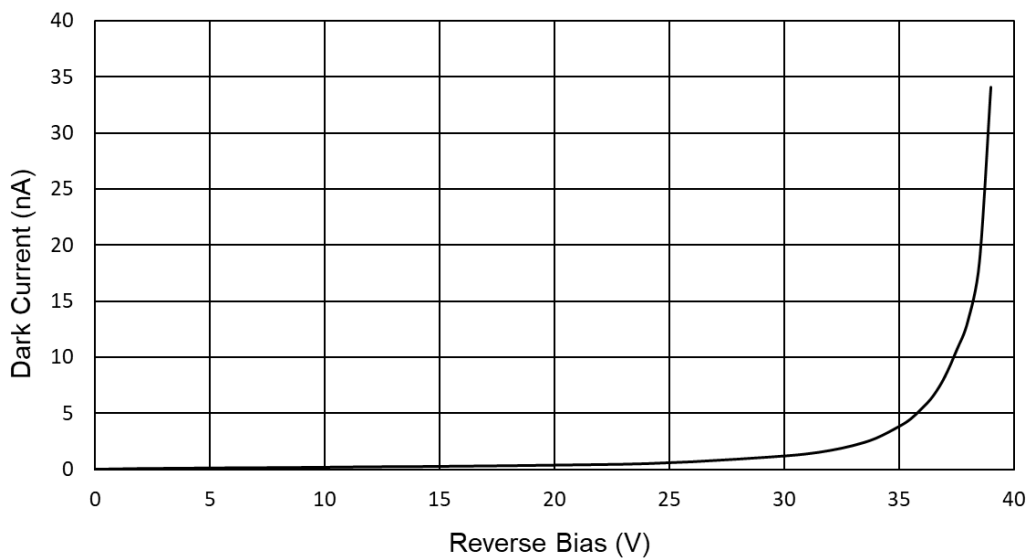
PARAMETER	MIN	MAX	Units
APD Supply Voltage	-	V_{BR}	V
Operating Temperature	-40	+85	$^\circ\text{C}$
Storage Temperature	-55	+125	$^\circ\text{C}$
Forward Current, I_F	-	5	mA
Reverse Current, I_R	-	3	mA
Lead Soldering Temperature ¹	-	260	$^\circ\text{C}$

¹0.080" from case for 10 seconds.

Typical Gain vs. Reverse Bias



Typical Dark Current vs. Reverse Bias





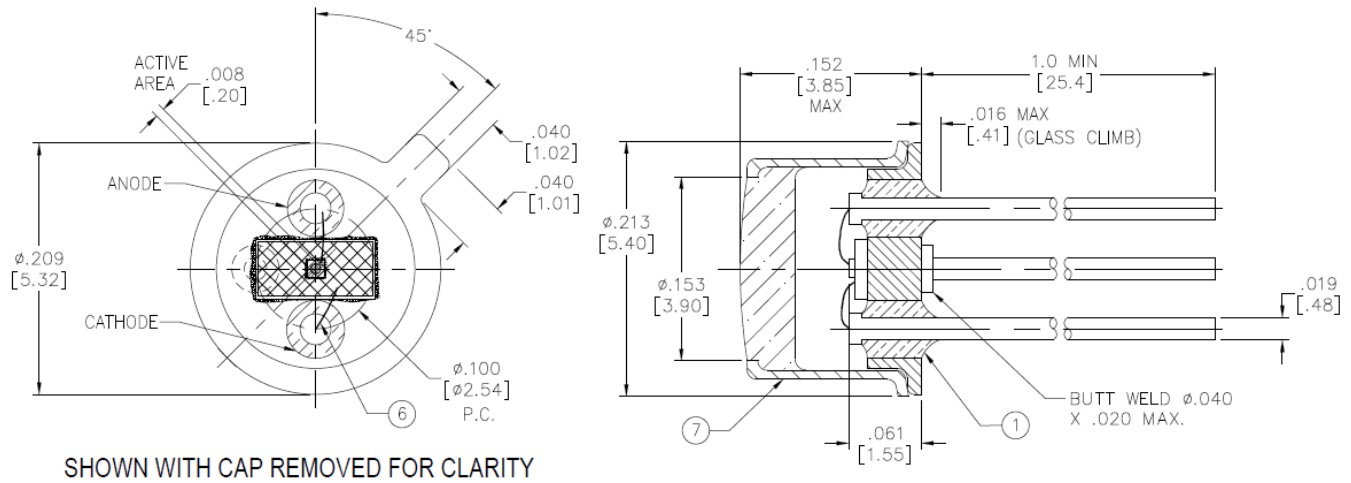
From Deep UV to Mid-IR

OPTO DIODE
An ITW Company

InGaAs Avalanche Photodiode $\Phi 200\mu\text{m}$

ODD-APD-001

Package Information



Dimensions are in inch [metric] units.

Specifications are subject to change without prior notice.

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