



FEATURES

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

APPLICATIONS

- Time of Flight (ToF) LiDAR Systems
- Laser Rangefinders
- Autonomous Vehicle Obstacle Detection
- Safety Scanners
- Free-Space Optical Communications
- Optical Speed Measurements

Electro-Optical Characteristics at 25 °C

Parameters	Test Conditions	Min	Typ.	Max	Units
Active Area	$\Phi 0.5 \text{ mm}$		0.031		mm^2
Spectrum Response	-	400 ~ 1100			nm
Responsivity	$\lambda = 905\text{nm}, M = 1$	0.5	0.55	-	A/W
V_{OP} (Gain = M)	$\lambda = 905\text{nm}, M = 100$	95	-	209	V
	$\lambda = 905\text{nm}, M = 30$	34	-	50	
Dark Current, I_d	$M = 100$	0.2	0.4	1.0	nA
Rise Time, t_s	$\lambda = 905\text{nm}, f = 1\text{MHz}, R_L = 50\Omega,$	-	0.5	1.5	ns
Capacitance, C	$M = 100, f = 1\text{MHz}$	-	1.2	-	pF
Temperature Coefficient	$I_R = 10\mu\text{A}, -40^\circ\text{C} \sim 85^\circ\text{C}$	-	0.9	-	$\text{V}/^\circ\text{C}$
Reverse Breakdown Voltage	$I_R = 10\mu\text{A}$	100	-	220	V
Package	-	TO - 46			-

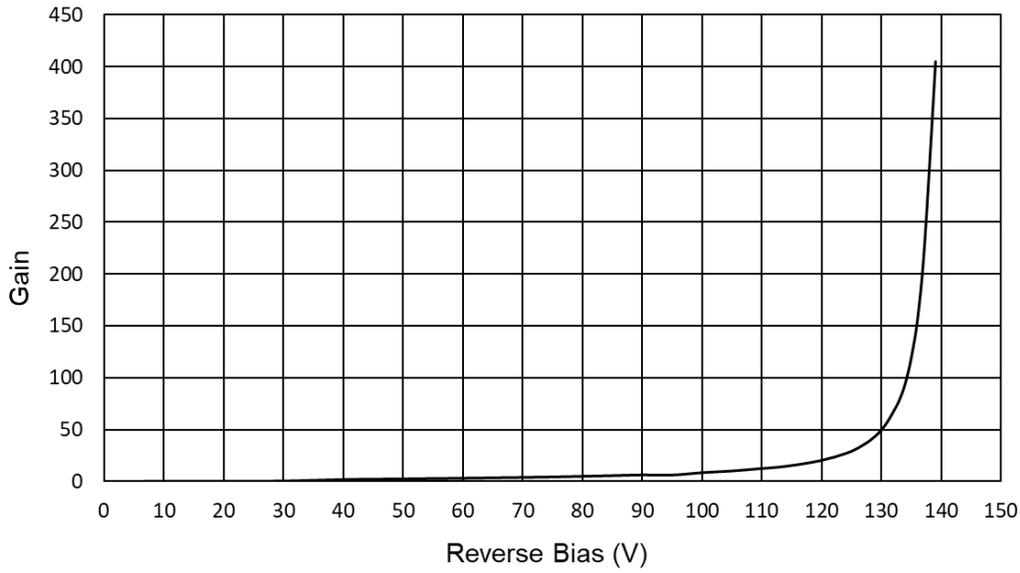
Thermal Parameters

PARAMETER	MIN	MAX	Units
APD Supply Voltage	-	$0.95 \cdot V_{BR}$	V
Operating Temperature	-45	+85	$^\circ\text{C}$
Storage Temperature	-45	+100	$^\circ\text{C}$
Forward Current, I_F	-	5	mA
Lead Soldering Temperature ¹	-	260	$^\circ\text{C}$

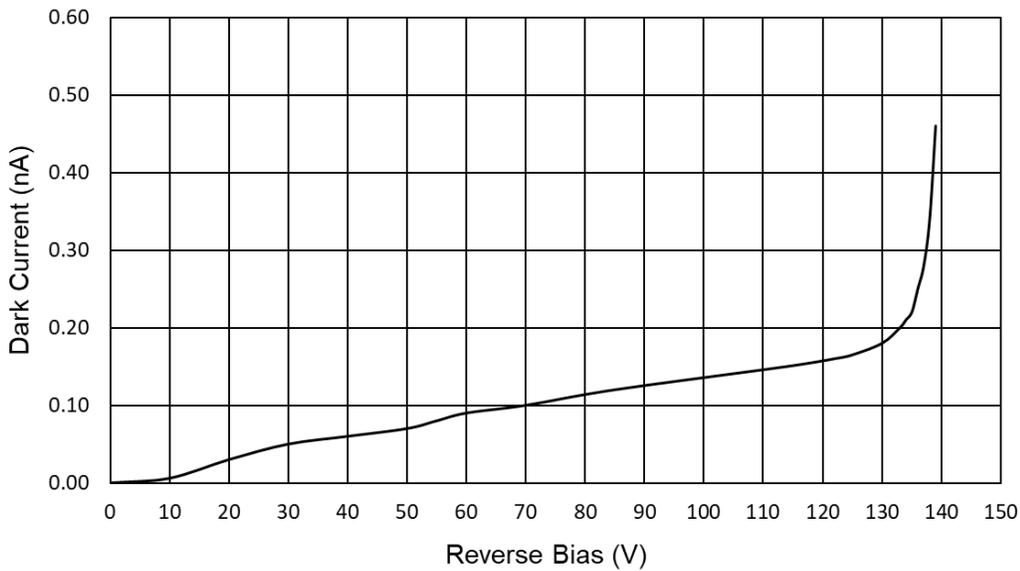
¹0.080" from case for 10 seconds.



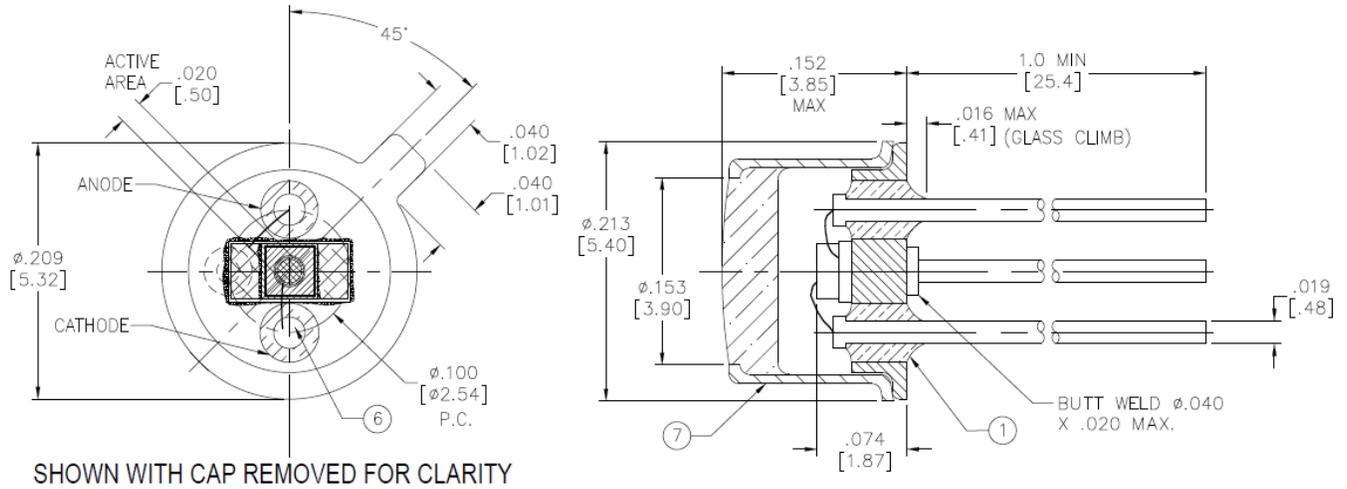
Typical Gain vs. Reverse Bias



Typical Dark Current vs. Reverse Bias



Package Information



Dimensions are in inch [metric] units.

Specifications are subject to change without prior notice.