

Ultra High Gain Silicon Photodetectors

Features

- High Speed Responsivity / QE
- High Bandwidth / Fast Response
- Low Noise
- Low Bias Voltage
- Hermetically Sealed TO-Packages

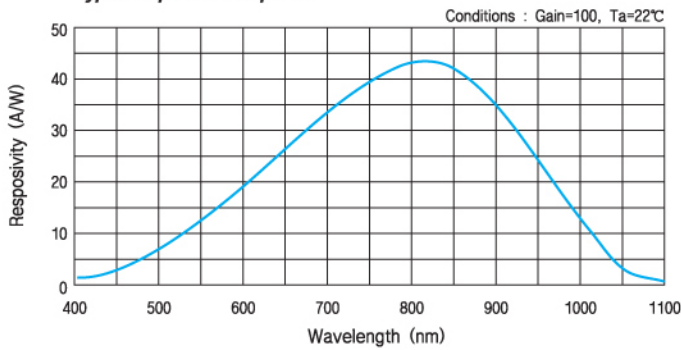
Applications

- High Speed Optical Communications
- Laser Range Reader
- Bar Code Readers
- Optical Remote Control
- Medical Equipment
- High Speed Photometry

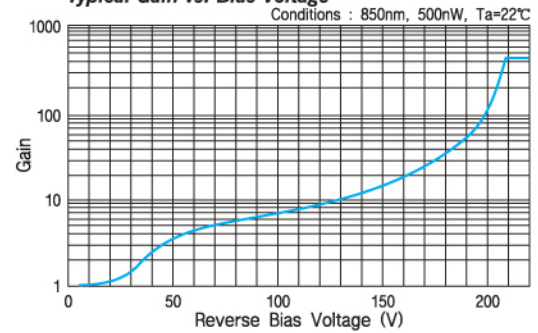


Silicon Avalanche Photodiodes make use of internal multiplication to achieve gain due to impact ionization. The result is the optimized series of high responsivity devices, exhibiting excellent sensitivity. We offer several sizes of detectors that are available with flat windows or ball lenses for optical fiber applications.

Typical Spectral Response



Typical Gain vs. Bias Voltage



Model Number	Active Area		Peak Responsivity Wavelength	Responsivity (A/W)	Dark Current (nA)	Capacitance (pF)	Rise Time (ns)	Operating Bias Voltage Range (V)	Temp. Range (°C)		Package Style
	Area (mm ²)	Dimensions (mm)	λ_p nm	850 nm G=100	G=100	1MHz G=100	850 nm G=100 50Ω	G=100	Operating	Storage	
			typ.	typ.	typ.	typ.	typ.				

Silicon Avalanche Photodiodes

Model Number	Area (mm ²)	Dimensions (mm)	Peak Wavelength (nm)	Responsivity (A/W)	Dark Current (nA)	Capacitance (pF)	Rise Time (ns)	Operating Bias Voltage Range (V)	Operating Temp. Range (°C)	Storage Temp. Range (°C)	Package Style
APD-300 APD-300L	0.07	0.3Ø	820	42	1.0	1.5	0.4	130 - 280	-40 ~ +70	-40 ~ +85	TO-18 Flat Window
APD-500 APD-500L	0.20	0.5Ø			1.8	2.5	0.5				TO-18 Ball Lens
APD-900	0.64	0.9Ø			2.5	7	1.0				TO-5
APD-1500	1.8	1.5Ø			7.0	12	2.0				TO-5
APD-3000	7.1	3.0Ø			15	40	5.0				TO-5