



FEATURES

- 0.2, 0.5, 1, 1.5mm diameter Active Area
- Low Temperature Coefficient: 0.45 V/°C
- High Sensitivity, Low Noise
- High Bandwidth

APPLICATIONS

- Optical Fiber Communication
- Laser range finder
- High speed photometry

GENERAL RATINGS / ABSOLUTE MAXIMUM RATINGS

Product Model	Active Area		Package Style	Storage Temperature (°C)		Operating Temperature (°C)	
	Diameter* (mm)	Area (mm ²)		Min	Max	Min	Max
APD02-8-150-T52	0.2	0.03	TO-52	-55	+125	-40	+100
APD05-8-150-T52	0.5	0.19	TO-52	-55	+125	-40	+100
APD10-8-150-T52	1.0	0.78	TO-52	-55	+125	-40	+100
APD15-8-150-TO5	1.5	1.77	TO-5	-55	+125	-40	+100
APD15-8-150-T5H	1.5	1.77	TO-5	-55	+125	-40	+100

* Area in which a typical gain can be obtained

ELECTRO-OPTICAL CHARACTERISTICS (Typ. T_A = 23°C)

Product Model	Responsivity M = 100 λ = 800 nm (A/W)	Dark Current M = 100 (nA)		Capacitance M = 100 (pF)	Q.E. M = 1 λ = 800 nm (%)	Breakdown Voltage 10uA (V)		Temperature Coefficient of Breakdown Voltage (V/°C)	Bandwidth -3dB M = 100 λ = 800 nm (MHz)	Excess Noise Figure M = 100 λ = 800 nm
		Typ	Max			Typ	Max			
APD02-8-150-T52	50	0.05	0.5	1.5	75	150	200	0.45	1000	0.3
APD05-8-150-T52		0.1	1	3	75	150	200	0.45	900	0.3
APD10-8-150-T52		0.2	2	6	75	150	200	0.45	600	0.3
APD15-8-150-TO5		0.5	5	10	75	150	200	0.45	350	0.3
APD15-8-150-T5H		0.5	5	10	75	150	200	0.45	350	0.3

MODEL NUMBER DESCRIPTION: APDxx-y-zzz-pppp

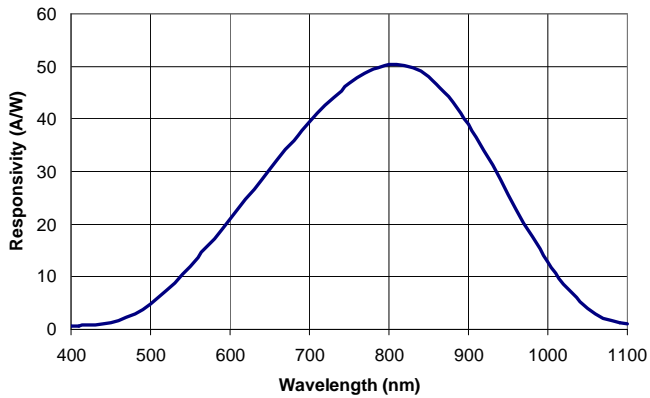
APD	Silicon Avalanche Photodiode		
xx	Active Area Diameter (mm)	02, 05, 10, 15	0.2, 0.5, 1.0, 1.5 mm
y	Optimal Spectrum	8	800nm band
zzz	Breakdown Voltage (typical)	150	Typical breakdown close to 150V
pppp	Package options	T52, TO5, T5H	Add suffix L for Lens

Information in this datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

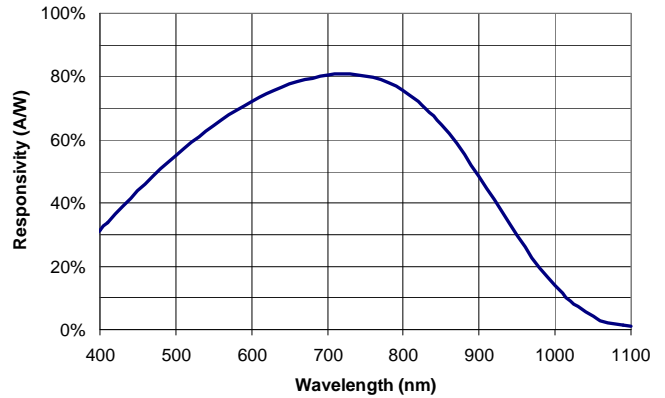
APD Series 8-150

Silicon Avalanche Photodiodes, 800 nm band

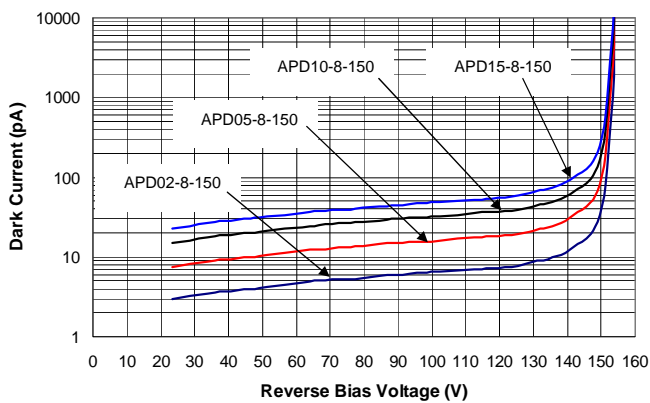
TYP. SPECTRAL RESPONSE ($T_A = 23^\circ\text{C}$, $M = 100$)



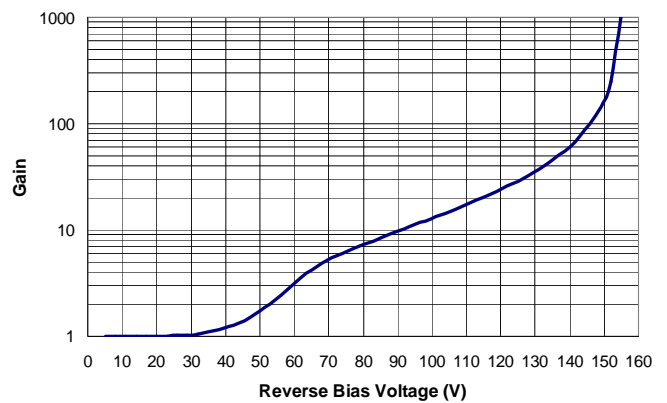
TYP. QUANTUM EFFICIENCY vs. WAVELENGTH ($T_A = 23^\circ\text{C}$)



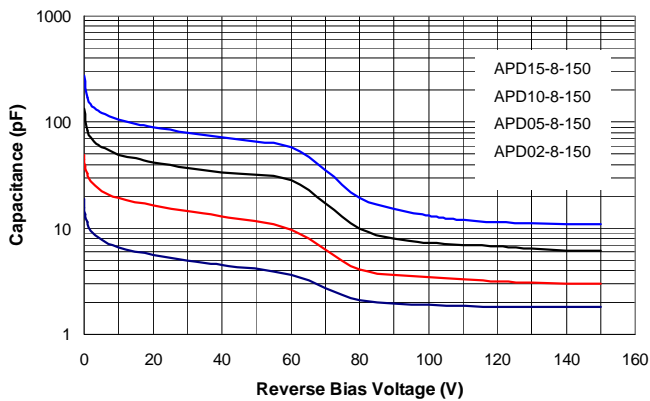
TYP. DARK CURRENT vs. REVERSE BIAS ($T_A = 23^\circ\text{C}$)



TYP. GAIN vs. REVERSE BIAS ($T_A = 23^\circ\text{C}$)



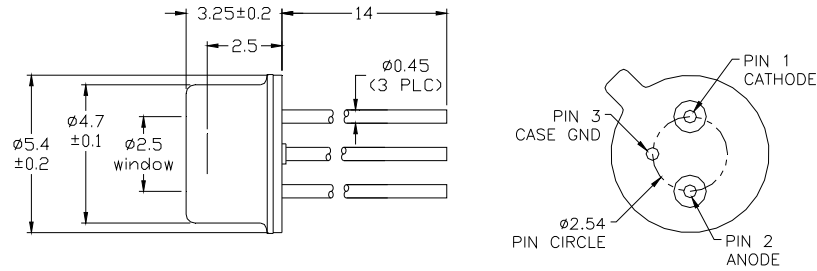
TYP. CAPACITANCE vs. REVERSE BIAS ($T_A = 23^\circ\text{C}$, $f = 1\text{MHz}$)



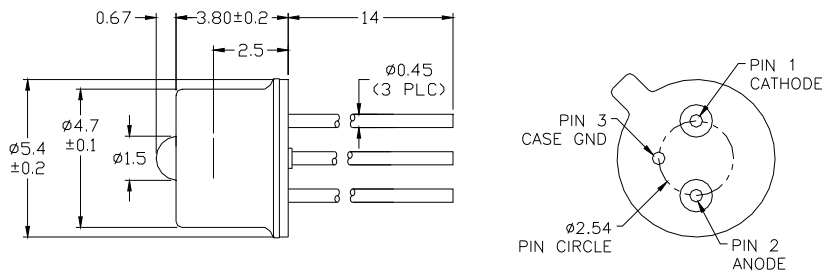
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DIMENSIONAL OUTLINES: (in mm)

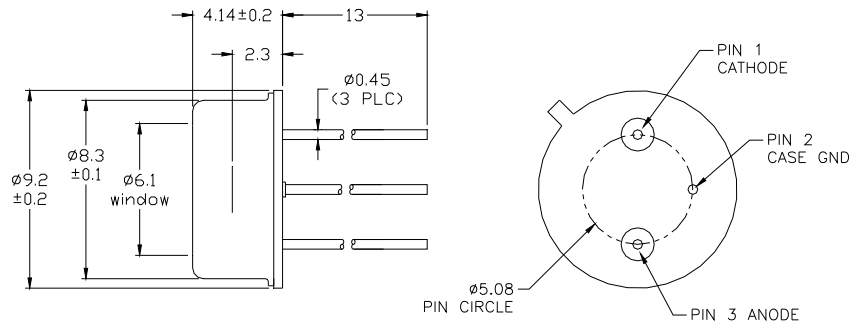
T52 (TO-52 package)



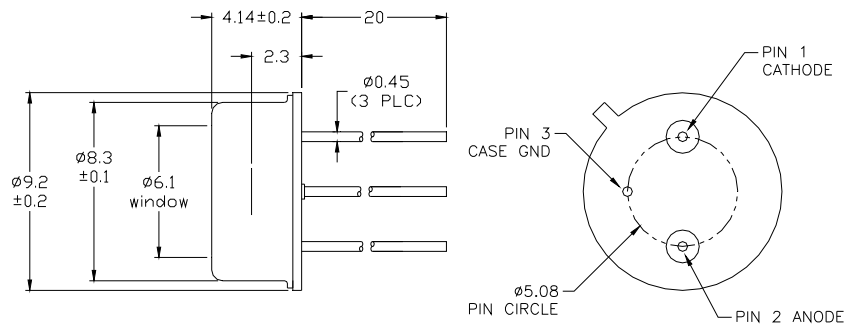
T52L (TO-52 package with lens)



T05 (TO-5 package)



T5H (TO-5 package)



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