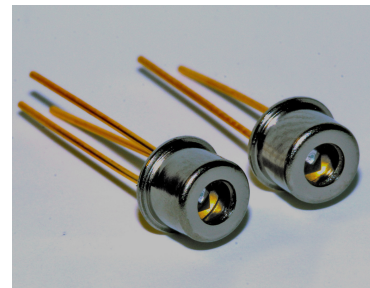


Peak Sensitivity Wavelength: 800nm

The MTAPD-06-023 & 024 are circular ($\Phi 200\mu\text{m}$) 0.03mm^2 active area Silicon Avalanche Photodiodes with optimized sensitivity between 800-900nm & housed in a hermetic TO-46 metal can package. They operate at lower voltages than standard APDs and are well suited for applications requiring High Speed & Low Noise in temperature controlled environments.

FEATURES

- >Fast Rise Time
- >Low Operating Voltage
- >High Gain
- >Optimum Gain M=50
- >Operating Voltages: 75V - 85V
- Available in Die form
- >Optical rangefinders
- >High speed optical communications
- >Medical Equipment
- >Bar Code Readers



Absolute Maximum Ratings



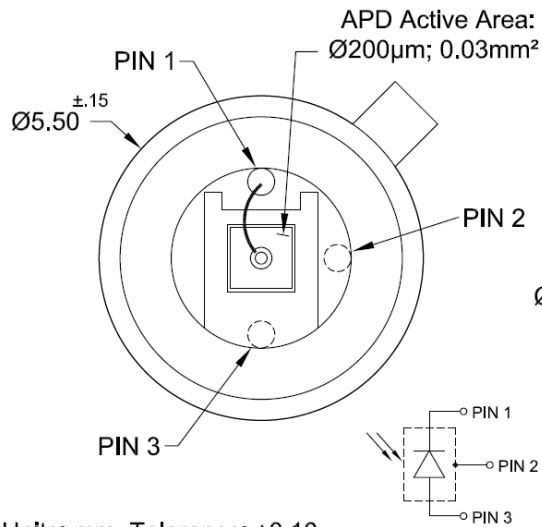
ITEMS	SYMBOL	RATINGS	UNIT
Storage Temperature	Tstg	-45 ~ +100	°C
Operating Temperature	Topr	-45 ~ +85	°C
Power Dissipation	Pd	1	mW
Operating Voltage	Vop	0.95 x Vbr	V
Lead Soldering Temperature *1	Tls	260	°C

*1: Time 10 Sec max

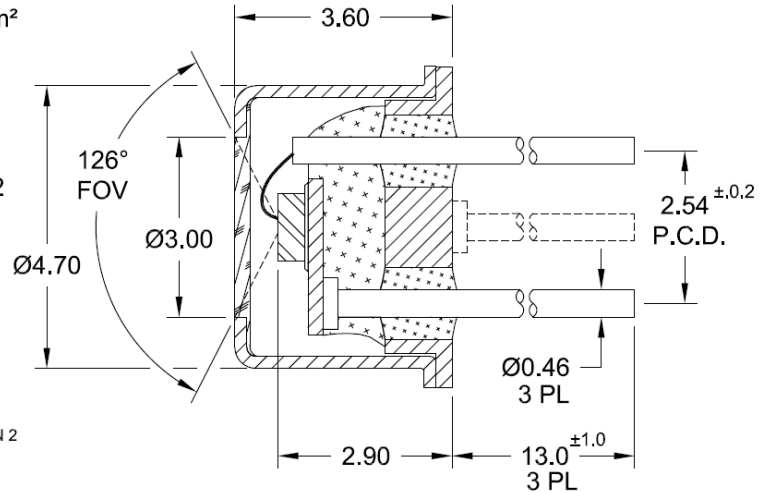
Electrical & Optical Characteristics (Ta=23°C)

ITEMS	SYMBOL	CONDITIONS	MIN.	TYP	MAX.	UNIT
Spectral Response	λ	--		400 - 1100		nm
Active Area		--		Diameter 200		μm
Responsivity	Re	$\lambda 905\text{nm}$, $oe=1\mu\text{W}$, M=100	40	50	--	A/W
Rise Time	tR	f=1MHz, RL=50 Ω , $\lambda=800\text{nm}$	--	0.3	--	ns
Dark Current	Id	M=100		0.2	1.0	nA
Capacitance	Cj	M=100, f=1MHz		2.0		pF
Optimal Gain	M	--		50		
Breakdown Voltage	Vbr	IR=2uA	75	--	100	V
Temperature Coefficient	Tc	-40°C - 85°C		0.6		V/°C

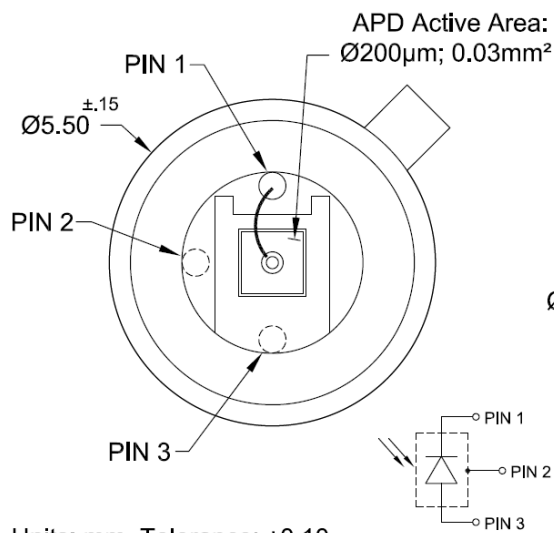
MTAPD-06-023



Units: mm, Tolerance: ± 0.10



MTAPD-06-024



Units: mm, Tolerance: ± 0.10

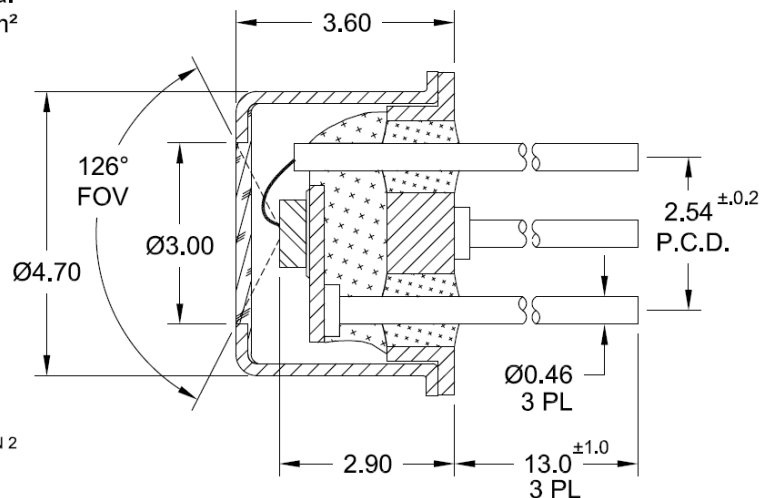


Fig 1 Responsivity, Vr=0V

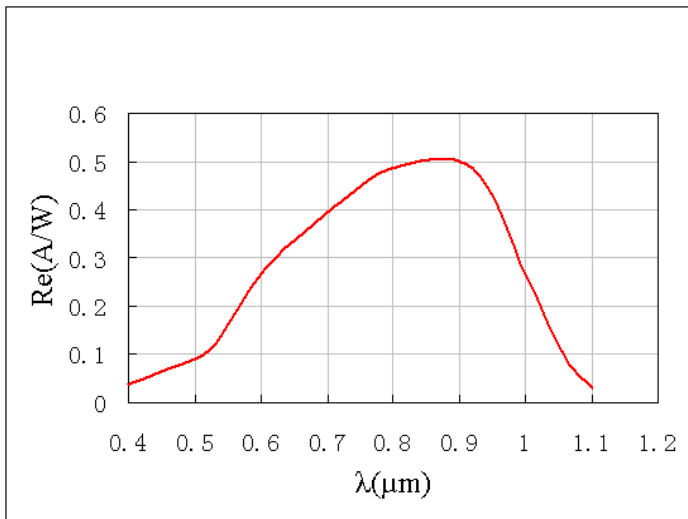


Fig 2 Dark Current

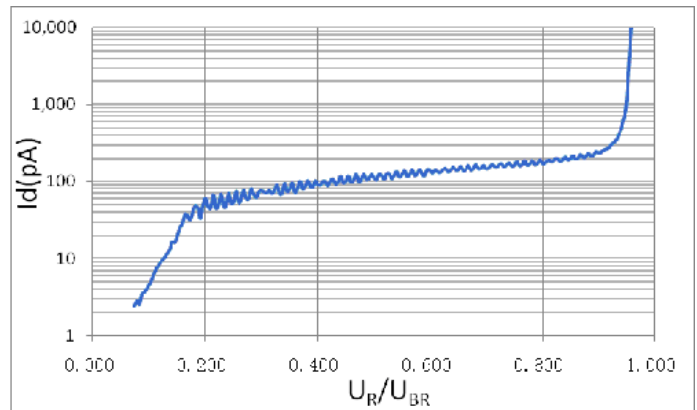


Fig 3 Multiplication

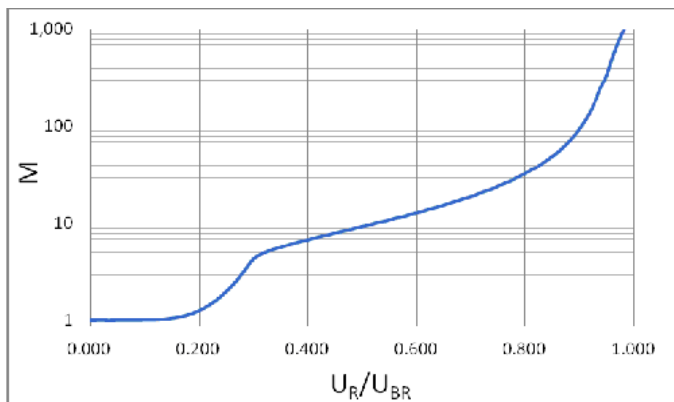


Fig 4 Capacitance

