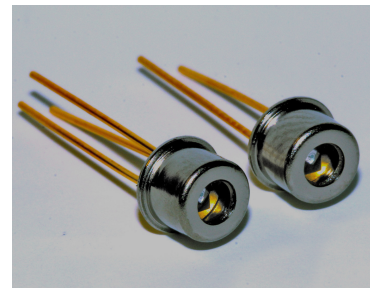


Peak Sensitivity Wavelength: 800nm

The MTAPD-06-xxx is a circular ($\Phi 230\mu\text{m}$) 0.04 mm^2 active area Avalanche Photodiode with optimized sensitivity at 800 nm & housed in a hermetic TO-46 metal can package. It is well suited for applications requiring High Speed & Low Noise in visible-near IR applications.

FEATURES

- >Fast Rise Time
- >Ultra Low Noise
- >Low Capacitance
- >High Gain
- >Optimum Gain M100
- >Operating Voltages:
120v - 160v
160v - 200v
Other Voltages Available
- >Optical rangefinders
- >High speed optical communications
- >Medical Equipment
- >Bar Code Readers



Absolute Maximum Ratings



ITEMS	SYMBOL	RATINGS	UNIT
Storage Temperature	Tstg	-55 ~ +125	°C
Operating Temperature	Topr	-20 ~ +85	°C
Power Dissipation	Pd	1	mW
Forward Current	If	1	mA
Operating Voltage	Vop	0.95 x Vbr	V
Lead Soldering Temperature *1	Tls	260	°C

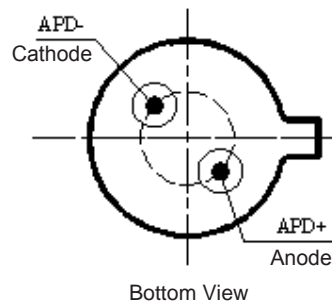
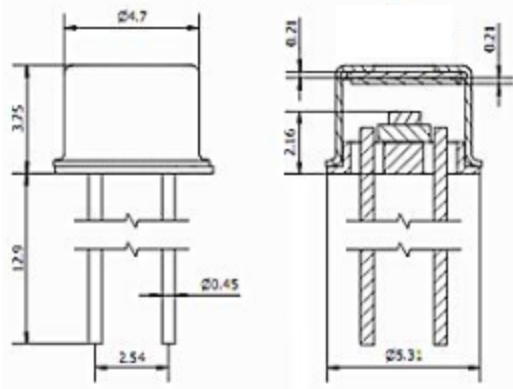
*1: Time 10 Sec max

Electrical & Optical Characteristics (Ta=23°C)

ITEMS	SYMBOL	CONDITIONS	MIN.	TYP	MAX.	UNIT
Spectral Response	λ	--		400 - 1100		nm
Active Area		--		Diameter 230		μm
Responsivity	Re	$\lambda=800\text{nm}$, $oe=1\mu\text{W}$, $M=100$	35	50	--	A/W
Rise Time	t_R	$f=1\text{MHz}$, $R_L=50\Omega$, $\lambda=800\text{nm}$	--	0.3	--	ns
Dark Current	I_D	$M=100$	0.02	0.05	0.4	nA
Capacitance	Cj	$M=100$, $f=1\text{MHz}$		1.5		pF
Optimal Gain	M	--		100		
Breakdown Voltage	Vbr	$I_R=2\mu\text{A}$	80	--	200	V
Temperature Coefficient		$T_c=-40^\circ\text{C} - 85^\circ\text{C}$		0.6		V/°C

TO-46 Package Dimensions (2 Pin)

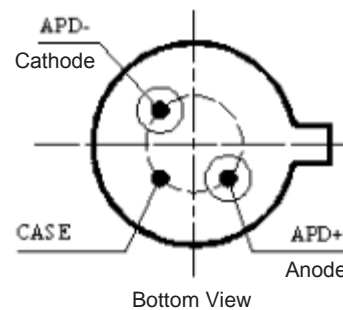
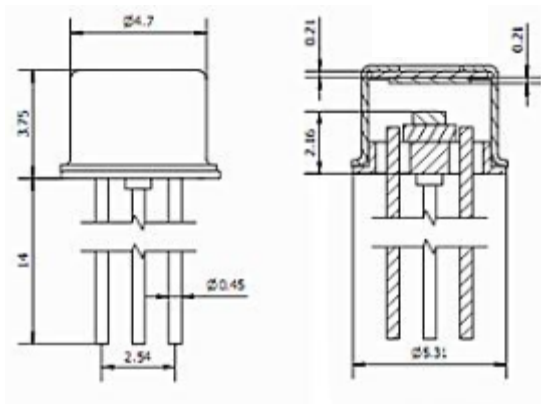
MTAPD-06-001 Vbr=120-160V
MTAPD-06-002 Vbr=160-200V



Unit: mm, Tolerance: ± 0.2

TO-46 Package Dimensions (3 Pin)

MTAPD-06-003 Vbr=120-160V
MTAPD-06-004 Vbr=160-200V



Unit: mm, Tolerance: ± 0.2

Fig 1 Responsivity, Vr=0V

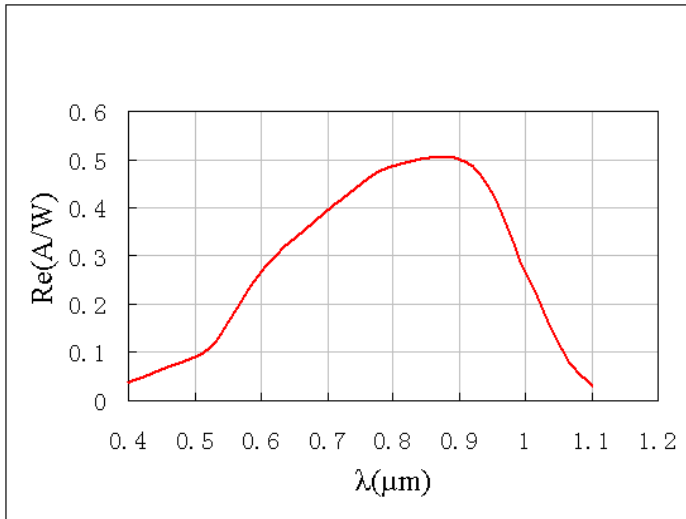


Fig 2 Dark Current

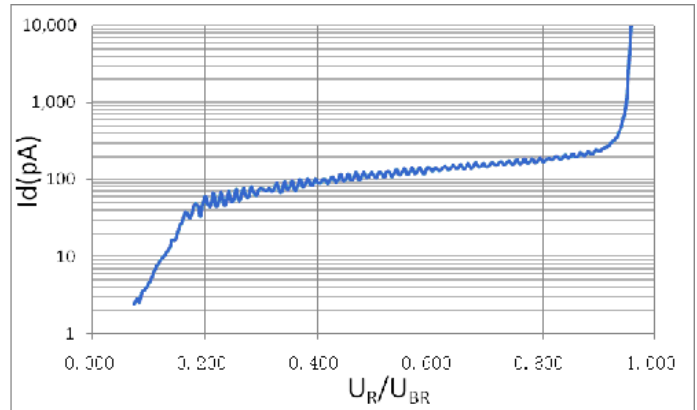


Fig 3 Multiplication

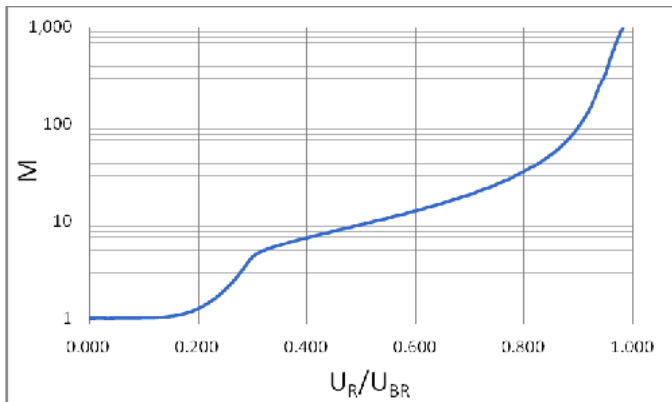
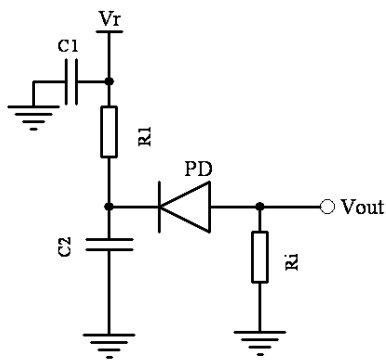


Fig 4 Capacitance

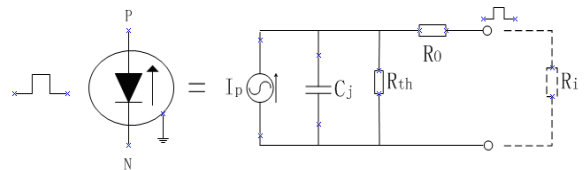


Applications Diagram



- Notes: C1 - Filter capacitor, filter noise from Vr.
 C2 - bypass capacitor, the loop to ground for AC signal.
 R1 - current-limiting resistor, protect APD from higher voltage.
 Ri - sampling resistor, convert the current signal into a voltage signal.

Equivalent Circuit Diagram



The information contained herein is subject to change without notice.



2016-11-04

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [marktech](#) manufacturer:

Other Similar products are found below :

[MTAPD-07-014](#) [MTE5066CJ-UR](#) [MTPS8085NJ1](#) [MT3700W3-UV](#) [MTE280F13-UV](#) [MTE5052W-UBG](#) [MTE8560P](#) [MTE8760NJ2](#) [MTG7-001I-XBD00-BL-0Z01](#) [MTD3010N](#) [MTE310H41-UV](#) [MTE340H33-UV](#) [MTAPD-06-014](#) [MTE5057N-UYG](#) [MTMS7700T38](#) [MTPS9067MC](#) [MTE5066WSC-UR](#) [MTAPD-07-010](#) [MTE310H32-UV](#) [MTE9460N1](#) [MTE325F13-UV](#) [MTE6000N](#) [MTE6000L-HP](#) [MTE9460N5](#) [MTAPD-07-012](#) [MTAPD-07-016](#) [MTE325H32-UV](#) [MTE4064PT-UR](#) [MTPS3085MT](#) [MTPS9067WC](#) [MTE5052N-UBG](#) [MTE5900M3A-UY](#) [MTG7-001I-XQB00-CW-L053](#) [MTPS8085PT](#) [MTAPD-07-007](#) [MTE310H33-UV](#) [MTPS8085CP](#) [MTE310H21-UV](#) [MTD1114M3B](#) [MTD6100PT](#) [MTE340F13-UV](#) [MTAPD-07-003](#) [MTE325H41-UV](#) [MTAPD-06-009](#) [MTE3061N-UO](#) [MTPS3085WS](#) [MTAPD-06-006](#) [MTAPD-06-010](#) [MTE9460N2](#) [MTE1300N](#)