

InGaAs APD ($\Phi 200\mu\text{m}$)

CTAPD200V1

Application

- Distance measurement
- Spatial light transmission
- OTDR
- Low-light-level detection



1. Parameter

Absolute Maximum Rating

Parameter	Symbol	Min.	Max.	Unit
APD voltage supply	V_{po}		V_{BR}	V
Operating Temperature	T_c	40	+85	$^{\circ}\text{C}$
Storage Temperature	T_{srg}	55	+125	$^{\circ}\text{C}$
Foward Current	I_F		5	mA
Reverse Current	I_k		3	mA

Electro-Optical Characteristics(@ $T_c=22\pm 3^{\circ}\text{C}$)

Parameter	Symbol	Test Condition	Min.	Typ	Max.	Unit
Response Spectrum	λ	_____	950~1700			nm
Responsivity	R_e	$\lambda=1550\text{nm}$ $P_{in}=1\mu\text{W}, M=1$	0.90	1.00		AW
Multiplication factor	M	$\lambda=1550\text{nm}$ $P_{in}=1\mu\text{W}, V_R=0.9V_{BR}$	10.00	_____	_____	_____
Dark Current	I_b	$V_R=0.9V_{BR}, P_{in}=0\mu\text{W}$		8.00	50.00	nA
-3dB cut-off frequency	BW	$M=10$ $R_L=50Q$	0.60	0.90		GHz
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu\text{A}, P_{in}=0\mu\text{W}$	40.00	_____	50.00	V
Capacitance	C	$V_R=0.9V_{BR}, f=1\text{MHz}$		1.50	2.00	pF

Temperature coefficient of VeR	Y	$I_R=100\mu A, P_{in}=0.1W$ -55°C~+85°C	0.05	0.10	0.15	V/°C
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Typical Performance Curves (@ Tc=22±3°C)

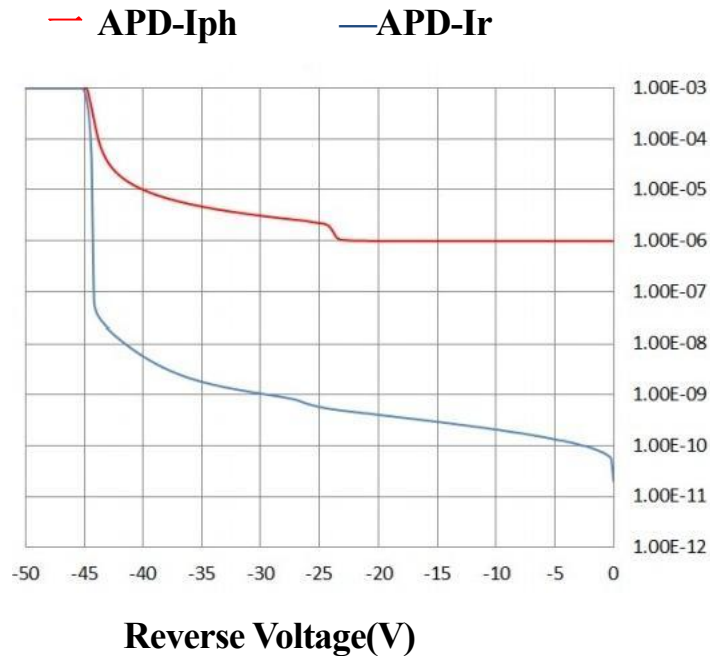


Figure 1 Photo Current and Dark Current vs.Reverse Voltage

-55°C~85°C

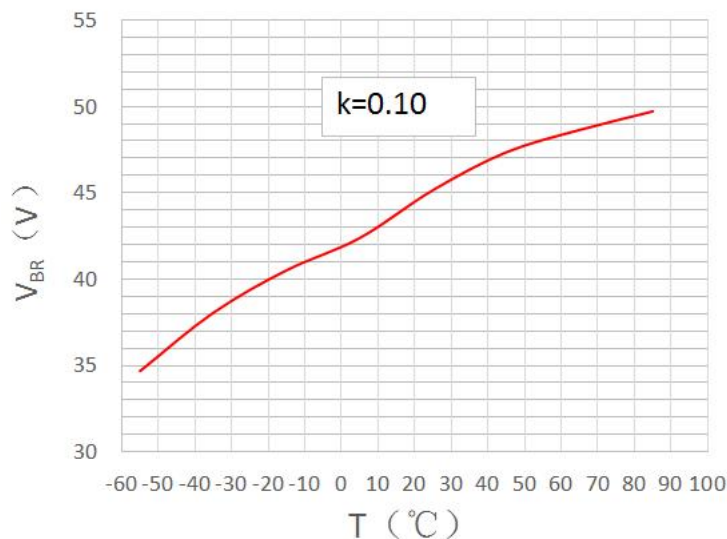
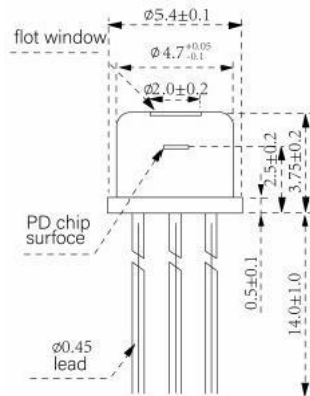
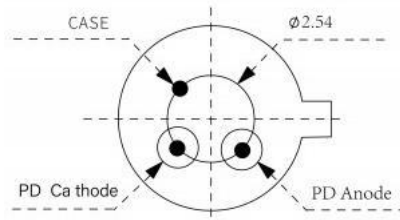


Figure 2 Breakdown Voltage vs. Temperature

2. Package Drawings



Type B PIN description
2mm flat window TO Mode 1:0



Type B PIN description Bottom View