

InGaAs APD

Model: OPR200-IGA-APD



Applications

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

Absolute Maximum Rating

Parameter	Symbol	Min.	Max.	Unit
APD voltage supply	V_{PD}		V_{BR}	V
Operating Temperature	T_C	-40	+85	°C
Storage Temperature	T_{STG}	-55	+125	°C
Forward Current	I_F		5	mA
Reverse Current	I_R		3	mA

Electrical Characteristics ($T_C=22 \pm 3^\circ\text{C}$)

Parameter	Symbol	Value			Unit	Test conditions
		Min.	Typ.	Max.		
Response Spectrum	λ	950~1700			nm	
Active Diameter	D		200		μm	
Responsivity	R_e	0.90	1.0		A/W	$\lambda=1550\text{nm}$, $P_{in}=1\mu\text{W}$, $M=1$
Multiplication factor	M	10				$\lambda=1550\text{nm}$, $P_{in}=1\mu\text{W}$, $V_R=V_{BR}-2V$
Dark Current	I_D		8.00	50	nA	$P_{in}=0\mu\text{W}$, $V_R=V_{BR}-2V$
-3dB cut-off frequency	BW	0.6	0.9		GHz	$M=10$, $R_L=50\Omega$
Reverse Breakdown Voltage	V_{BR}	40		50	V	$I_R=10\mu\text{A}$, $P_{in}=0\mu\text{W}$
Capacitance	C		1.50	2.00	pF	$V_R=V_{BR}-2V$, $f=1\text{MHz}$
Temperature coefficient of V_{BR}	Y	0.05	0.10	0.15	V/°C	$I_R=10\mu\text{A}$, $P_{in}=0\mu\text{W}$ -55°C ~ +85°C

Package Drawings

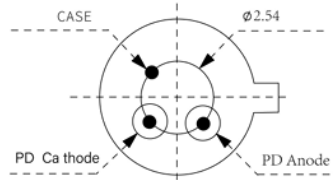
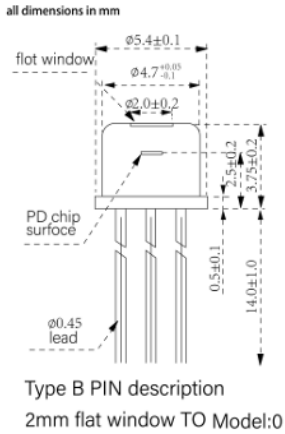
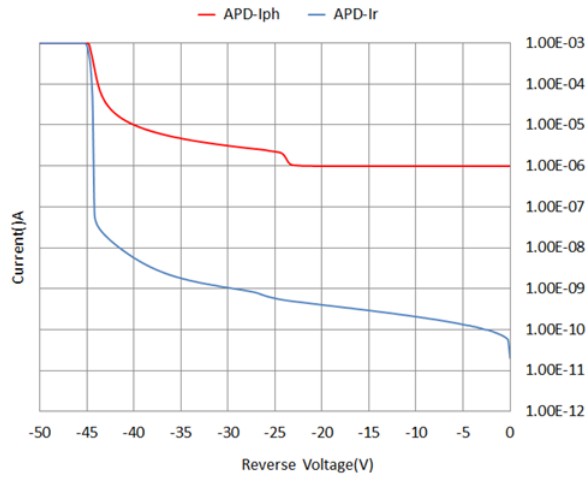


Photo Current and Dark Current vs. Reverse Voltage



Breakdown Voltage vs. Temperature

