

## AOA550AC:

### 55 $\mu\text{m}$ Top-illuminated InGaAs Avalanche Photodiode (APD)

#### FEATURES

- High reliability InGaAs/InP planar APD structure.
- 55 $\mu\text{m}$  top-illuminated active area.
- Low capacitance.
- Low dark current.

#### APPLICATIONS

- Optical receivers up to 2.5Gb/s.

#### ELECTRICAL AND OPTICAL CHARACTERISTICS AT 25 °C

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Responsivity	R	0.90	1.05		A/W	$\lambda=1550\text{nm}$ , M=1
		0.75	0.9			$\lambda=1310\text{nm}$ , M=1
Breakdown voltage	Vb	40	50	60	V	Id=10 $\mu\text{A}$
Dark current	Id		10	50	nA	Vr=0.9Vb
Temperature coefficient of Vb			0.09		V/°C	
Cutoff frequency	fc	2.0			GHz	M=10
Capacitance	C		0.38	0.5	pF	f=1MHz, Vr=0.9Vb
Maximum multiplication factor	Mmax	25				$\lambda=1310, 1550\text{nm}$ , Ipo=2 $\mu\text{A}$ , Vr=V @ Id=1 $\mu\text{A}$