

AOP800AC

80 μm InGaAs PIN Photodiode

FEATURES

- Highly reliable planar structure.
- 80 μm top-illuminated active area.
- Low dark current.
- High responsivity.

APPLICATIONS

- Optical receivers up to 1.25 Gb/s for Gigabit Ethernet, Fiber Channel and SONET/SDH.
- Instrumentation.

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Rating	Unit
PIN reverse voltage	V_r	30	V
PIN reverse current	I_r	2	mA
Operating temperature	T_{amb}	-40 to +85	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-50 to +100	$^{\circ}\text{C}$

ELECTRICAL AND OPTICAL CHARACTERISTICS AT 25 $^{\circ}\text{C}$

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Wavelength	λ	1000		1650	nm	
Responsivity	R	0.9	1.1		A/W	$\lambda=1550\text{nm}$
		0.85	0.95			$\lambda=1310\text{nm}$
Operation voltage	V	2.5		20	V	
Dark current	I_d		0.05	1	nA	$V_r=5\text{V}$
Cutoff frequency	f_c	1.5			GHz	$V_r=5\text{V}$
Capacitance	C		0.7	0.85	pF	$V_r=5\text{V}, f=1\text{MHz}$