

10Gbps InGaAs APD

AD1316G010-A01

Preliminary



Feature

- 35um optical detection window.
- Top-side illuminated device.
- AR coating for wide wavelength range.
- Good cut-off frequency.
- Low breakdown voltage.

Device Electro-Optical Characteristics

All parameters for T = 25°C unless otherwise noted.

PARAMETER	SYMBOL	UNIT	MIN.	TYP.	MAX.	TEST CONDITIONS
Breakdown Voltage	Vbr	V	26	30	36	Id=-10uA
Temperature Coefficient of Vbr	γ	V/°C		0.015	0.03	
Dark Current	Id	nA			150	V=-0.9Vbr
Capacitance	C	pF		0.2		V=-0.9Vbr, f=1MHz
Responsivity	R	A/W		0.75		$\lambda = 1310\text{nm}$
Gain	M			8		V=-0.9Vbr, Po=1uW
Bandwidth	3dB	GHz		6		V=-0.9Vbr

Device Physical Specifications

PARAMETER	UNIT	MIN.	TYP.	MAX.
Bond Pad	um	ϕ 65	ϕ 70	ϕ 75
Device Size	um		250X250	
Device Hight	um		150	

Absolute Maximum Ratings

PARAMETER	SYMBOL	UNIT	Ratings
Forward Current	If	mA	5
Reverse Voltage	Vr	V	0 to Vbr
Reverse Current	Ir	mA	2
Operating Temperature	To	°C	-40 to +85
Storage Temperature	Tst	°C	-40 to +100