



1.5GHz InGaAs PIN Photodiode 1x4 Array

Part No. PDA-13-1X4-1G

Features

- InGaAs PIN photodiode array
- 1x4 array bar with 250um pitch
- Sensitive area 70um
- Bandwidth >1.5GHz
- Optimized for fiber optic application



Specifications

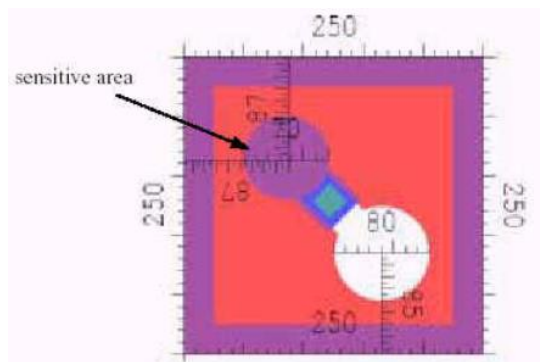
Electro-Optical Characteristics (For each single PIN photodiode element)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity ⁽¹⁾	R		0.9		A/W	V _R =5V, λ=1300nm
Responsivity Uniformity ⁽²⁾	DR			3	%	
Surface Reflectivity	R _s		1		%	λ=1300nm
Dark Current	I _D		0.1	1.0	nA	V _R =5V
Breakdown Voltage	V _{BD}	20	35		V	I _F =10mA
Capacitance	C		0.7	0.8	pF	V _R =5V, f=1MHz
Bandwidth	BW	1.5			GHz	V _R =5V

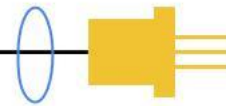
Notes:

1. AR coating optimized for specific 1300nm wavelength.
2. The difference of the maximum and minimum responsivity of each photodiode of an array should not exceed 3%.

Dimensions					
Parameters	Symbol	Min.	Typ.	Max.	Unit
Number of PIN photodiode elements	N		4		
Pitch	P		250		um
Chip length	L		1000		um
Chip width	w		250		um
Chip thickness	t		200		um
Diameter bond pads			80		um
Diameter sensitive area			70		um

Outline Diagram of Single Element (unit: um)





Typical Characteristics

Fig. 1 Typical Forward Current and Dark Current

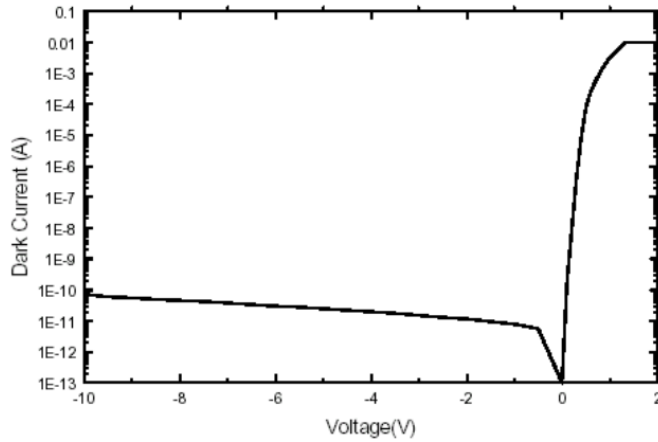


Fig. 2 Typical Photo-Current

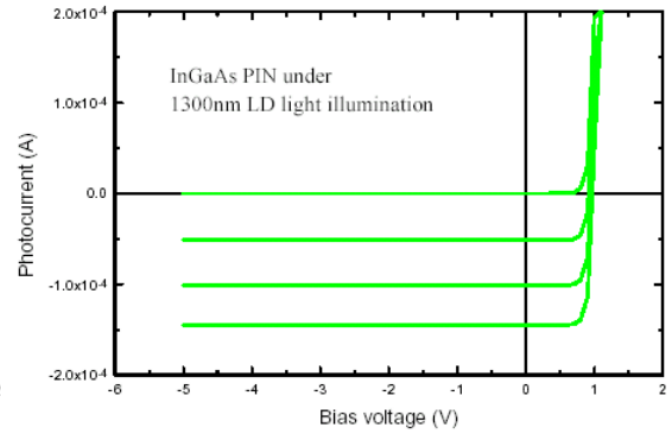


Fig. 3 Typical Breakdown Curve

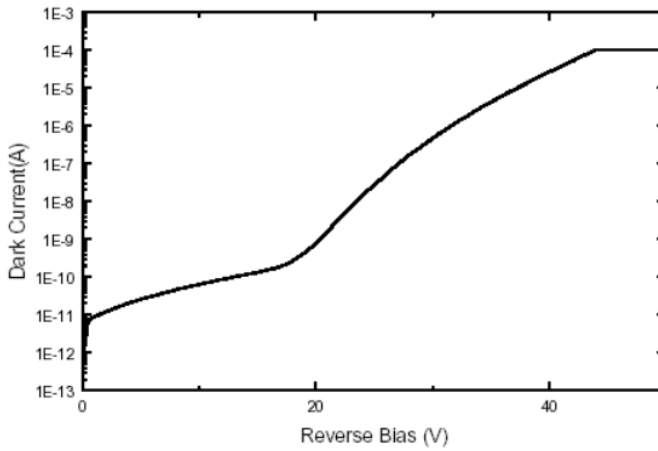
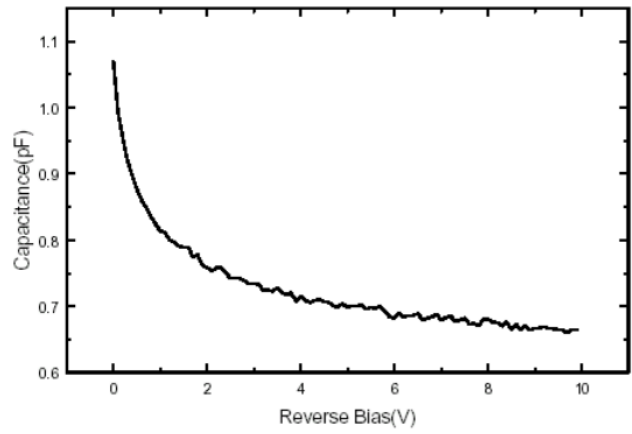


Fig. 4 Typical C-V Curve



Note: Specifications are subject to change without notice.