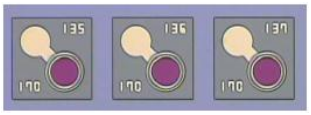
>2GHz InGaAs PIN Photodiode Chip 1xN Array
PDAx-13A2G

Data Sheet



Overview

The Lasermate PDAx-13A2G is a high-speed InGaAs PIN photodiode chip configured in a 1×N linear array with a 250μm channel pitch (N ≥ 2), specifically optimized for fiber optic applications. The device features low dark current and low capacitance, delivering excellent sensitivity and high-speed response—ideal for multi-channel optical receivers and data transmission systems.

Features

- InGaAs PIN photodiode chip
- 1×N linear array configuration
- Low capacitance and low dark current
- Suitable for fiber optic applications

Applications

- High-speed data communication
- Gigabit Ethernet
- Fibre Channel

Specifications

Electro-Optical Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.9	1.1		A/W	V_R = 1.5V, λ = 1550nm
Dark current	I_D		0.1	1	nA	V_R = 5V
Breakdown voltage	V_{BD}	25	35		V	I_R = 10μA
Capacitance	C		0.75	0.9	pF	V_R = 1.5V, f = 1MHz
			0.7	0.85		V_R = 5V, f = 1MHz
Bandwidth	BW	2			GHz	V_R = 1.5V

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage temperature	-40	100	°C	
Operating temperature	-40	85	°C	
Forward current		10	mA	
Reverse current		2	mA	
Reverse voltage		25	V	
Optical power		2	mW	

Typical Characteristics

Fig. 1 Typical Dark Current vs. Forward Current

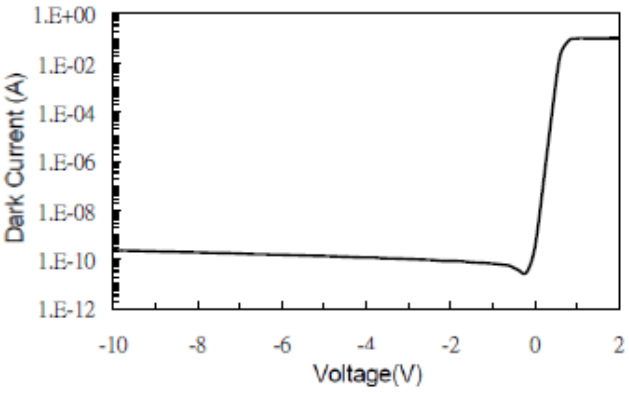


Fig. 2 Typical Photo-Current

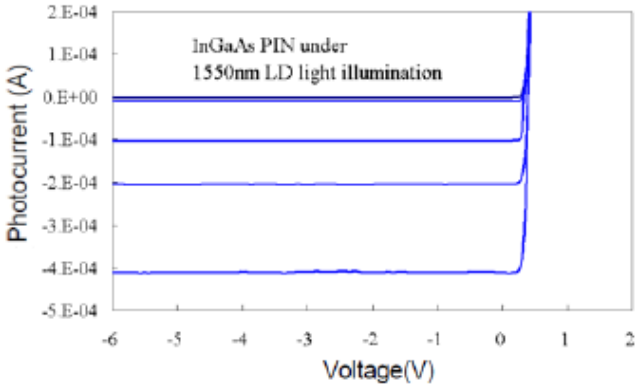


Fig. 3 Typical Breakdown Curve

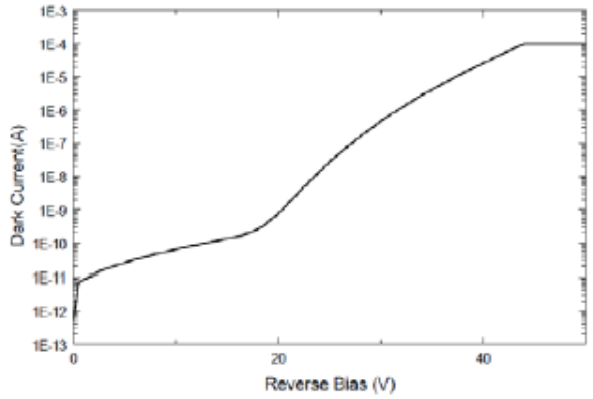
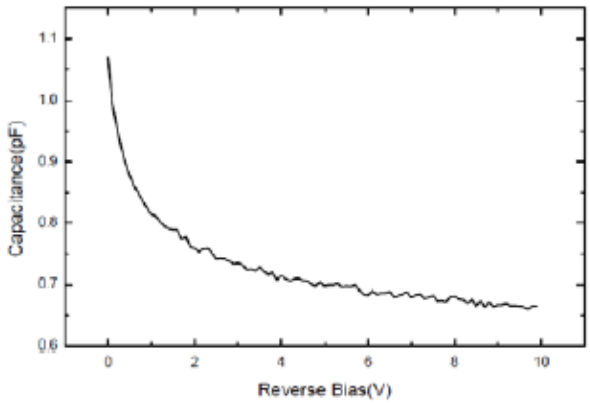
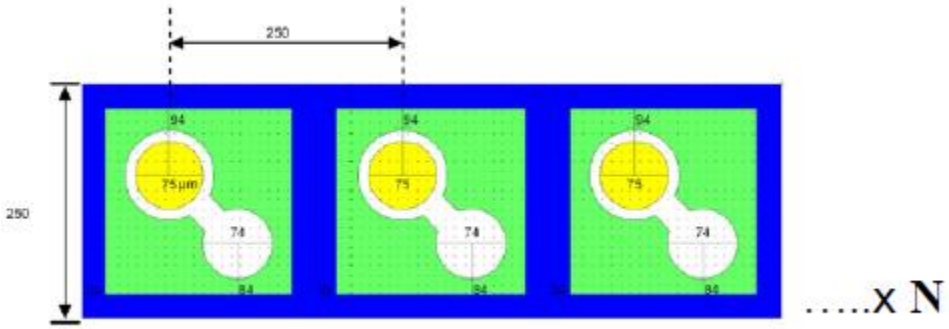


Fig. 4 Typical C-V Curve



Outline Diagram



- Chip size: 250μm x 250μm typical
- Chip thickness: 200μm ±30μm
- Sensitive area: Typical 75μm in diameter

Note: Specifications are subject to change without notice.