



## PDC-13A2G 2.5Gbps InGaAs PIN Photodiode Chip

### Overview

The Lasermate PDC-13A2G is a low dark current, low capacitance InGaAs photodiode chip designed for long wavelength 2.5Gbps fiber optic application.



### Features

- InGaAs PIN photodiode chip
- Data rate: 2.5Gbps
- Optimized for fiber optic application
- Low dark current and low capacitance
- Design for long wavelength 2.5 Gbps application

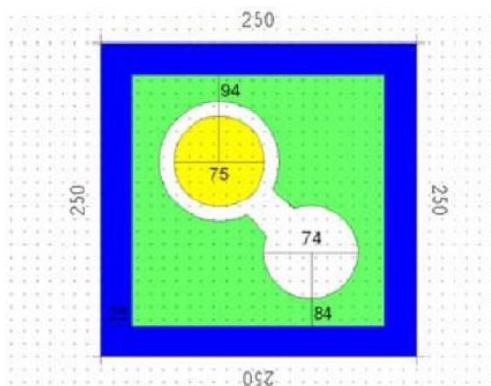
### Applications

- High speed data communication
- Gigabit Ethernet
- Fiber channel

### Specifications

Electro-Optical Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.9	1.1		A/W	$V_R = 1.5V, \lambda = 1550nm$
Dark current	$I_D$		0.1	1	nA	$V_R = 5V$
Breakdown voltage	$V_{BD}$	25	35		V	$I_R = 10\mu A$
Forward current	$I_f$		3		mA	$V_f = 1V$
Capacitance	C		0.75	0.90	pF	$V_R = 1.5V, f = 1MHz$
			0.70	0.85		$V_R = 5V, f = 1MHz$
Bandwidth	BW	2			GHz	$V_R = 1.5V$

### Outline Diagram



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

## Typical Characteristics

Fig. 1 Typical Dark Current vs. Forward Current

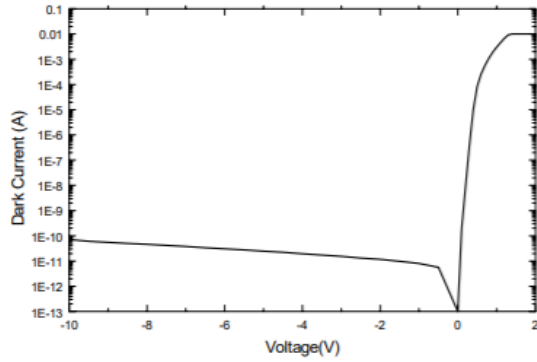


Fig. 2 Typical Photo-Current

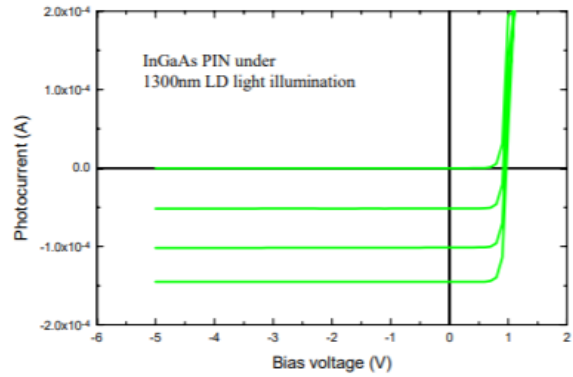


Fig. 3 Typical Breakdown Curve

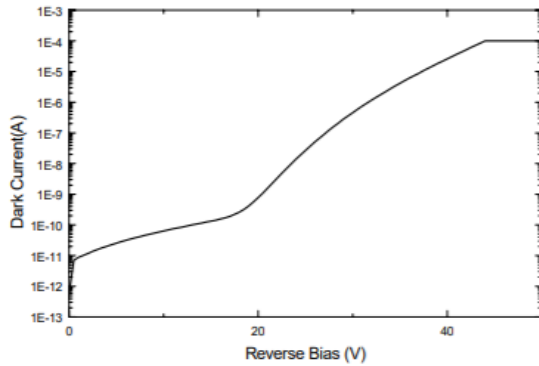
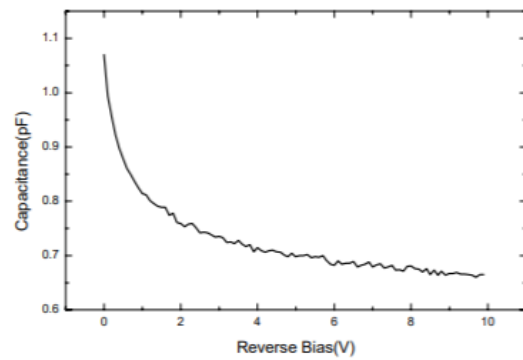


Fig. 4 Typical C-V Curve



Note: Specifications are subject to change without notice.