

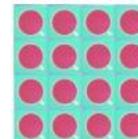


PDC-13A1000

1mm Active Area InGaAs PIN Photodiode Chip

Overview

The Lasermate PDC-13A1000 is a 1.0mm diameter active area InGaAs photodiode chip designed for use in monitor applications.



Features

- 1310nm/1550nm InGaAs PIN photodiode chip
- Dia. 1.0mm Active area
- Optical power monitor PD
- Low dark current
- Low capacitance

Applications

- Optimized for monitor optic application

Specifications

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		20	V	

Electro-Optical Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.8	0.95		A/W	$V_R = 5V, \lambda = 1310nm@25^\circ C$
Dark current	I_D		2	20	nA	$V_R = 5V@25^\circ C$
Breakdown voltage	V_{BD}	20	35		V	$I_R = 10\mu A$
Capacitance	C		100	200	pF	$V_R = 0V, f = 1MHz$

Typical Characteristics

Fig. 1 Typical Dark Current vs. Forward Current

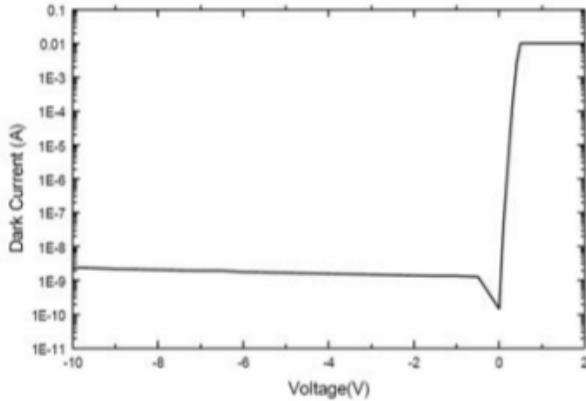


Fig. 2 Typical Photo-Current

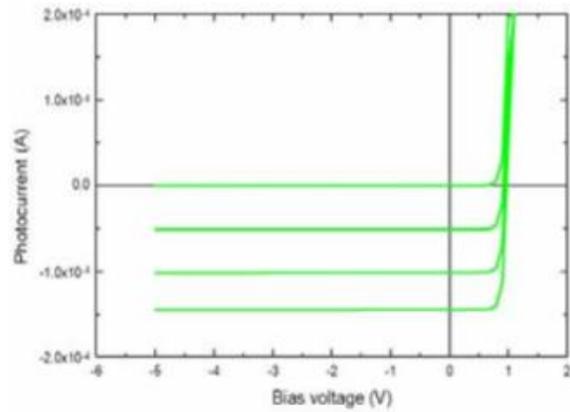


Fig. 3 Typical Breakdown Curve

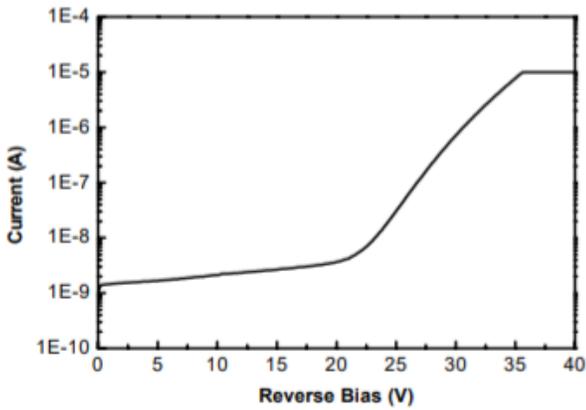
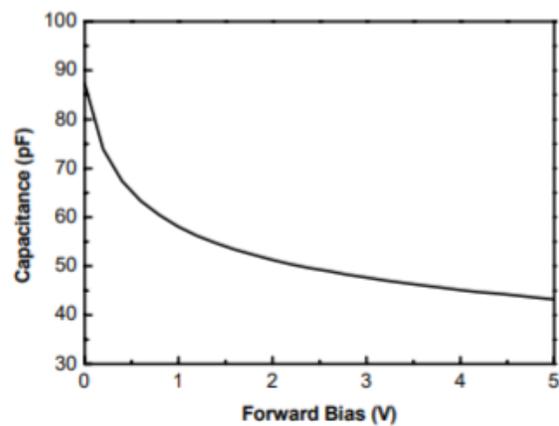
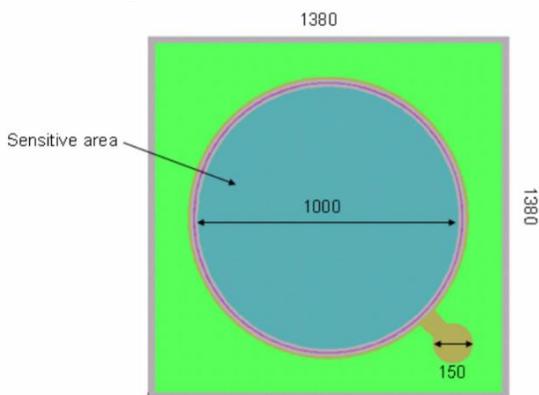


Fig. 4 Typical C-V Curve



Outline Diagram



- Chip size: 1380 μ m x 1380 μ m typical
- Chip thickness: 200 μ m \pm 30 μ m
- Sensitive area: Typical 1000 μ m in diameter

Note: Specifications are subject to change without notice.