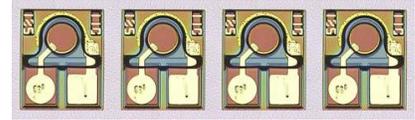




Non-Hermetic 14Gbps GaAs PIN Chip 1xN Array PDA4-85B14G

Data Sheet



Overview

The Lasermate PDA4-85B14G is a high responsivity at 850nm, low dark current and low capacitance, non-hermetic design GaAs photodiode chip 1x4 array. PDA4-85B14G is designed for use in 14Gb/s fiber optic data communication applications.

Features

- GaAs PIN photodiode chip 1x4 array bar with 250um pitch
- Data rate: 14Gbps
- High responsivity at 850nm
- Optimized for fiber optic application
- Low dark current and low capacitance
- Non-hermetic design

Applications

- High speed Data communications
- Gigabit ethernet
- Fiber channel

Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage temperature	-40	100	°C	
Operating temperature	-40	85	°C	
Reverse current		2	mA	T = 25°C
Forward current		10	mA	T = 25°C
Reverse voltage		20	V	T = 25°C

Electro-Optical Characteristics (T = 25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.58	0.62		A/W	V _R = 2V, λ = 850nm
Dark current	I _D		0.1	1	nA	V _R = 5V
Breakdown voltage	V _{BD}	30			V	I _R = 10μA
Capacitance	C		0.15	0.2	pF	V _R = 2V, f = 1MHz
Bandwidth	BW		12		GHz	V _R = 2V

Typical Characteristics

Fig 1. Typical Dark Current vs. Forward Current

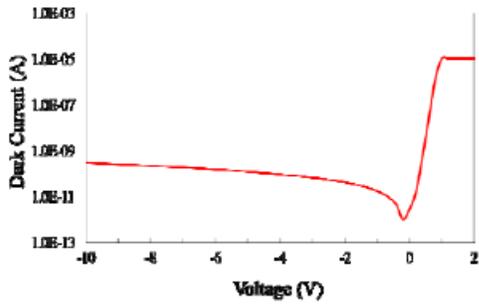


Fig 2. Typical Photo-Current

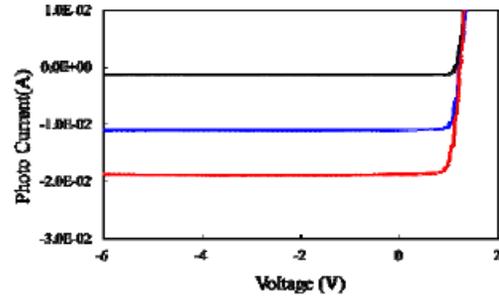


Fig 3. Typical Breakdown Curve

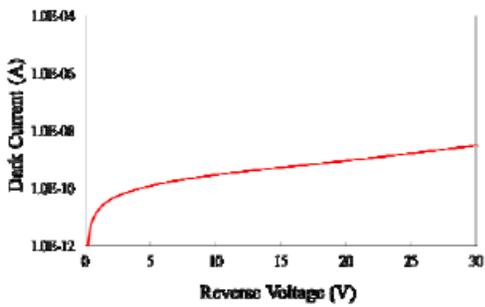
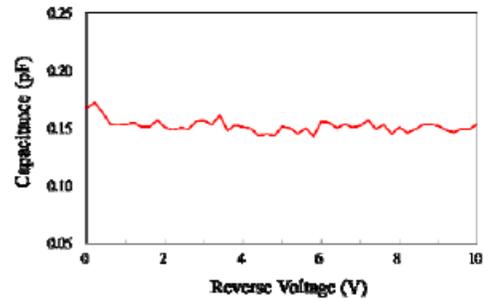
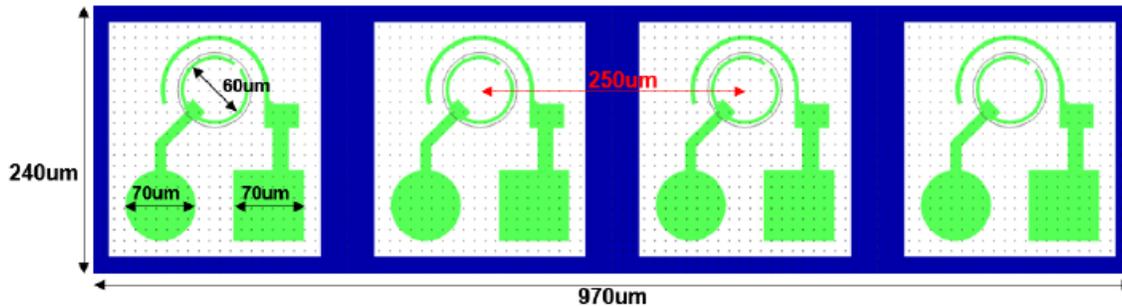


Fig 4. Typical C-V Curve



Outline Diagram



- Chip size is typical 970um × 240um.
- Chip thickness is 150±12.5um
- Sensitive area is typical 60 um in diameter.

Note: Specifications are subject to change without notice.