



PDC-85A2G 2.5Gbps GaAs PIN Photodiode Chip

Overview

The Lasermate PDC-85A2G is a GaAs photodiode chip with high responsivity at 850nm, low dark current and low capacitance, and designed for use in 2.5Gbps fiber optic data communication applications.

Features

- GaAs PIN photodiode chip
- Data rate: 2.5Gbps
- High responsivity at 850nm
- Optimized for 2.5G 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	
Forward current		10	mA	
Reverse voltage		20	V	

Electro-Optical Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.55	0.65		A/W	$V_R = 5V, \lambda = 850nm$
Dark current	I_D		0.2	1	nA	$V_R = 5V$
Breakdown voltage	V_{BD}	50			V	$I_R = 10\mu A$
Capacitance	C		0.70	0.90	pF	$V_R = 1.2V, f = 1MHz$
Bandwidth	BW	1.9			GHz	$V_R = 5V$

Typical Characteristics

Fig 1. Typical Dark Current vs. Forward Current

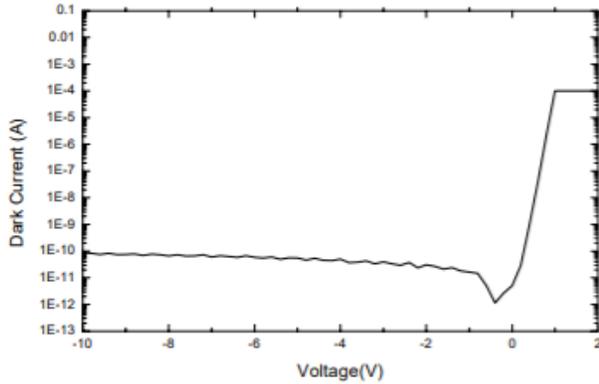


Fig 2. Typical Photo-Current

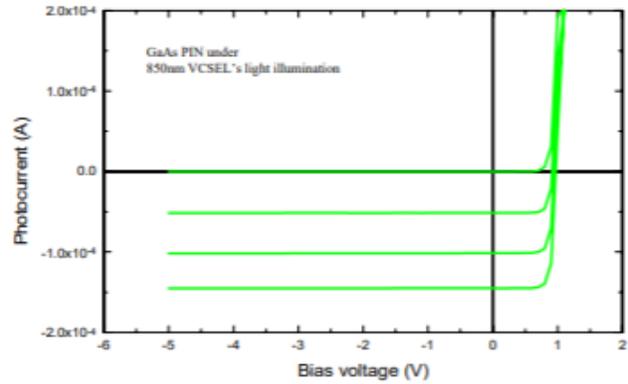


Fig 3. Typical Breakdown Curve

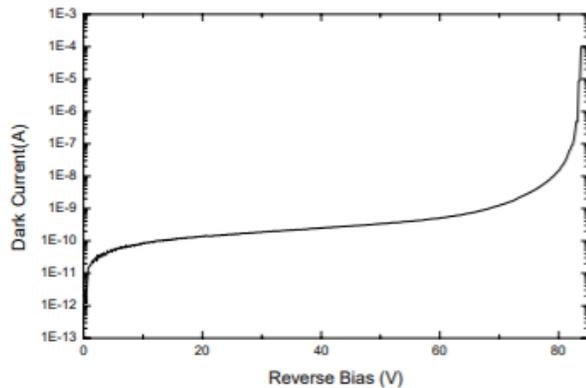
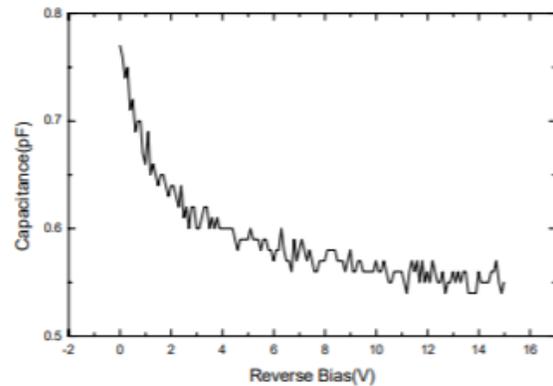
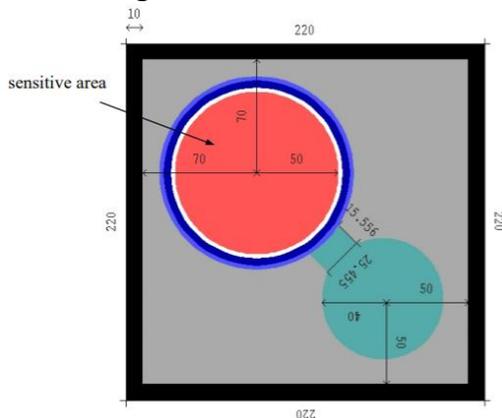


Fig 4. Typical C-V Curve



Outline Diagram



- Chip size: 220µm x 220µm typical
- Chip thickness: 200µm ±12.5µm
- Sensitive area: Typical 100µm in diameter

Note: Specifications are subject to change without notice.