PDC-85A10G

10Gbps 850nm GaAs PIN Photodiode Chip (Die)

Overview

The Lasermate PDC-85A10G is an 850nm wavelength spectral range, 10Gbps, GaAs photodiode chip designed for use in fiber optic data communication applications.

Features

- 850nm GaAs PIN photodiode chip
- Data rate: 10Gbps
- 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

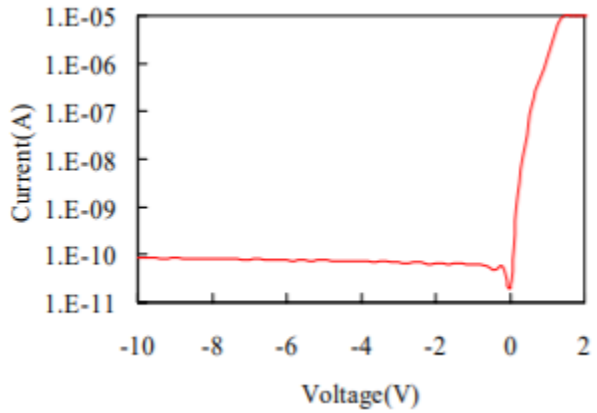
Specifications

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

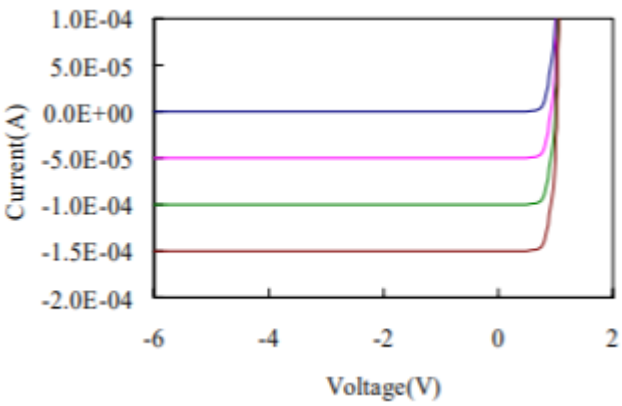
Electro-Optical Characteristics (T = 25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.55	0.65		A/W	V_R = 1.5V, λ = 850nm
Dark current	I_D		0.08	1	nA	V_R = 5V
Breakdown voltage	V_{BD}	50	65		V	I_R = 10μA
Capacitance	C		0.22	0.25	pF	V_R = 1.5V, f = 1MHz
Bandwidth	BW		9		GHz	V_R = 1.5V

Typical Characteristics

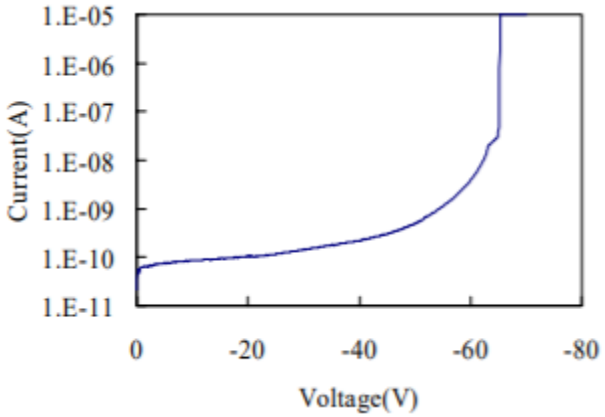
Typical Dark Current vs. Forward Current



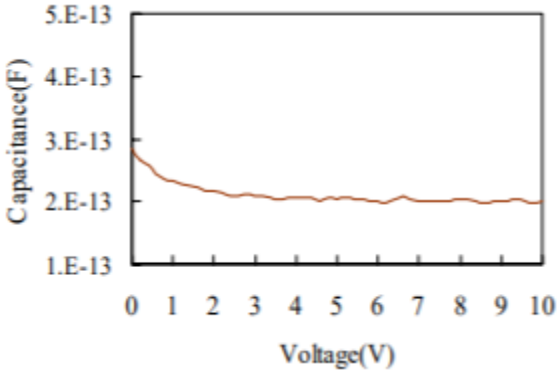
Typical Photo-Current



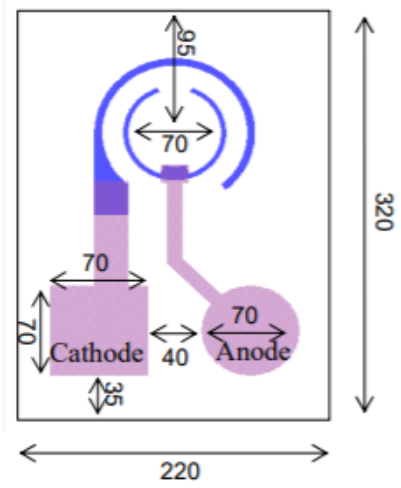
Typical Breakdown Curve



Typical C-V Curve



Outline Diagram



- Chip size: 220μm x 320μm typical
- Chip thickness: 200μm ±30μm
- Sensitive area: Typical 70μm in diameter

Note: Specifications are subject to change without notice.

For more information:

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