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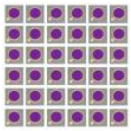
PDC-13A300
300um Active Area InGaAs PIN Photodiode Chip

Overview

The Lasermate PDC-13A300 is a 300um active area InGaAs photodiode chip designed for use in monitor applications.



Features

- InGaAs PIN photodiode chip
- Dia. 300μm Active area
- 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	
Optical power		2	mW	
ESD	500		V	

Electro-Optical Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.8	1.0		A/W	V_R=5V, λ=1300nm at 25°C
		0.9	1.1			V_R=5V, λ=1550nm at 25°C
Dark current	I_D		0.3	1	nA	V_R=5V at 25°C
Breakdown voltage	V_{BD}	25	35		V	I_R=1μA
Capacitance	C		6	10	pF	V_R=5V, f=1MHz

Typical Characteristics

Fig. 1 Typical Dark Current vs. Forward Current

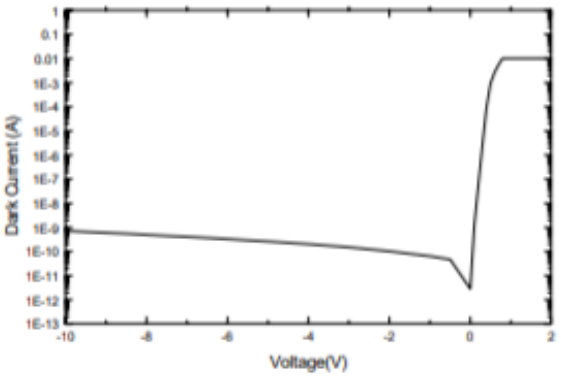


Fig. 2 Typical Photo-Current

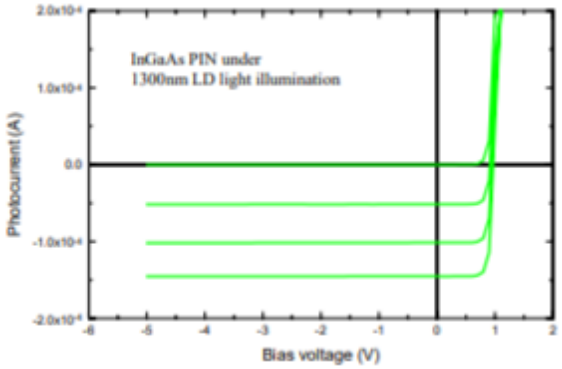


Fig. 3 Typical Breakdown Curve

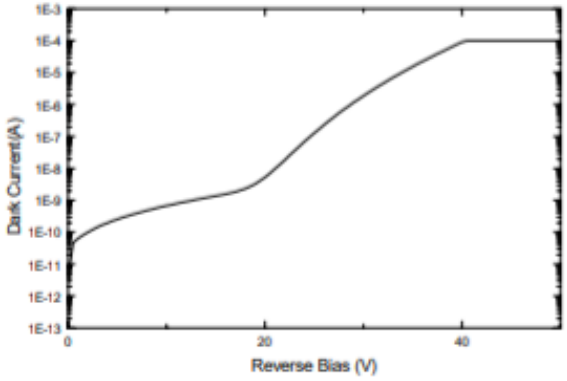
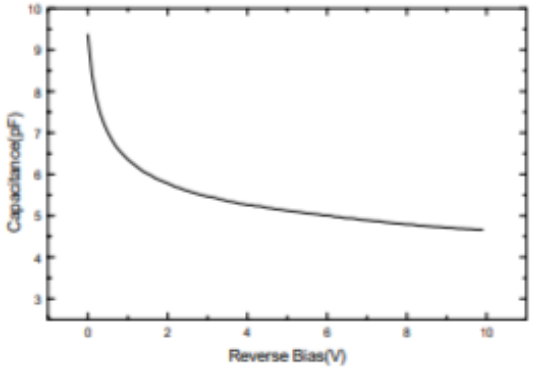
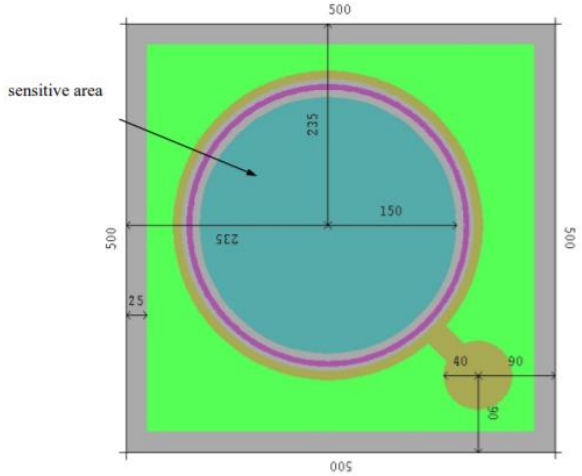


Fig. 4 Typical C-V Curve



Outline Diagram



- Chip size: 500µm x 500µm ±30µm typical
- Chip thickness: 200µm ±30µm
- Sensitive area: Typical 300µm ±5µm in diameter

Note: Specifications are subject to change without notice.