



## 4.25Gbps 850nm GaAs PIN Photodiode Chip

Part No. PDC-85A4G

### Features

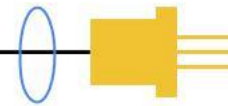
- 850nm GaAs PIN photodiode chip
- Data rate: 4.25Gbps
- High responsivity at 850nm
- Optimized for fiber optic application
- Low dark current and low capacitance
- Non-hermetic design



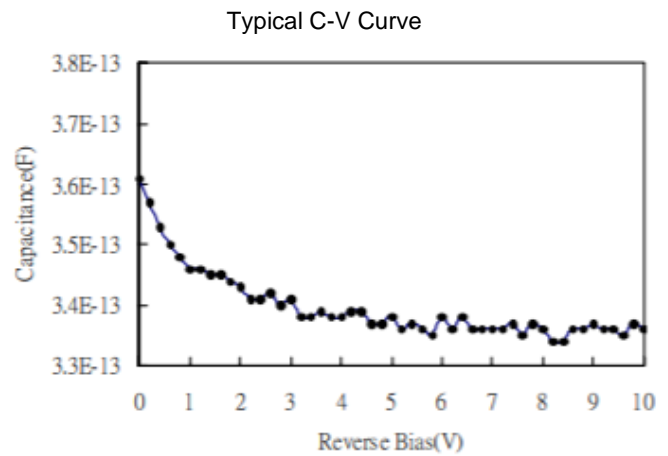
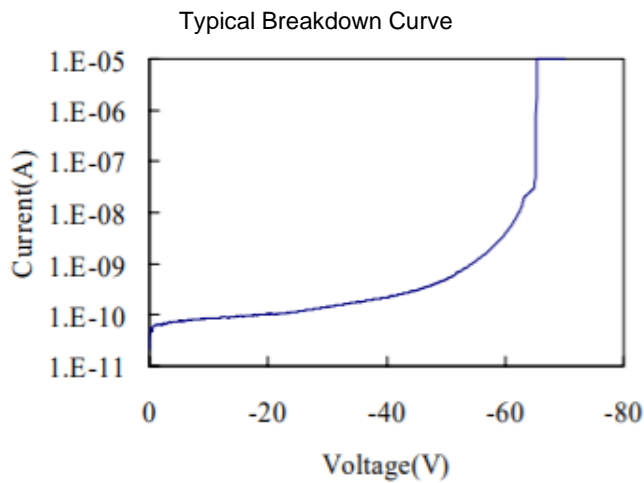
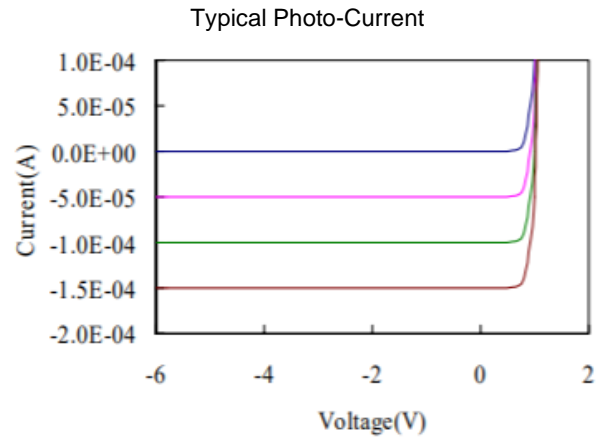
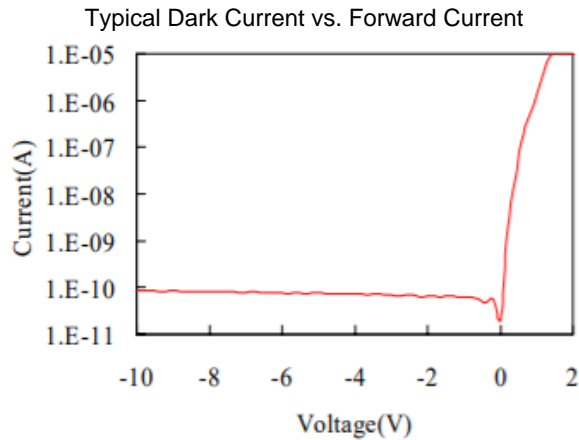
### Specifications

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

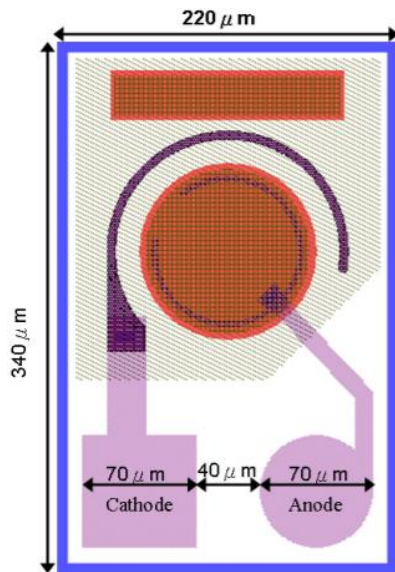
Electro-Optical Characteristics (T = 25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.55	0.65		A/W	V <sub>R</sub> = 1.5V, λ = 850nm
Dark current	I <sub>D</sub>		0.1	1	nA	V <sub>R</sub> = 5V
Breakdown voltage	V <sub>BD</sub>	50			V	I <sub>R</sub> = 10μA
Capacitance	C		0.36	0.45	pF	V <sub>R</sub> = 1.5V, f = 1MHz
			0.34	0.43		V <sub>R</sub> = 5V, f = 1MHz
Bandwidth	BW	5.0			GHz	V <sub>R</sub> = 1.5V



## Typical Characteristics



## Outline Diagram



- Chip size: 220 $\mu\text{m}$  x 340 $\mu\text{m}$  typical
- Chip thickness: 200 $\mu\text{m}$   $\pm$ 12.5 $\mu\text{m}$
- Sensitive area: Typical 90 $\mu\text{m}$  in diameter

Note: Specifications are subject to change without notice.