



Non-Hermetic 112Gbps PAM4 (56Gbd) GaAs PIN Photodiode 1x4 Array

PDA4-85A112G

Data Sheet

Description

The PDA4-85A112G is a high-speed, non-hermetic 1x4 GaAs PIN photodiode array designed for 112Gbps PAM4 (56Gbd) optical data transmission systems. With a compact 250 μ m pitch, this array offers excellent alignment compatibility with standard fiber ribbons. Optimized for operation at 850nm, it delivers high responsivity, low dark current, and low capacitance, making it ideal for short-reach, high-speed data communication.

Features

- 1x4 array bar with 250 μ m pitch
- 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

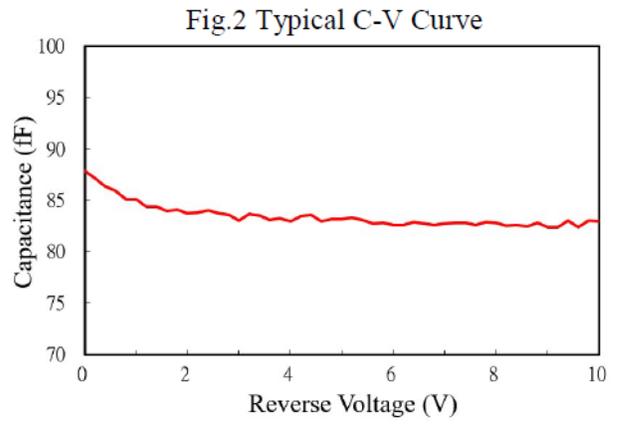
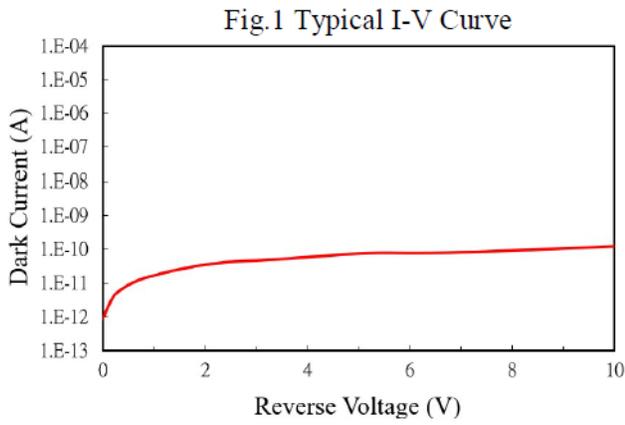
Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	100	$^{\circ}$ C	
Operating Temperature	-40	85	$^{\circ}$ C	
Reverse Current		2	mA	T=25 $^{\circ}$ C
Forward Current		10	mA	T=25 $^{\circ}$ C
Reverse Voltage		20	V	T=25 $^{\circ}$ C

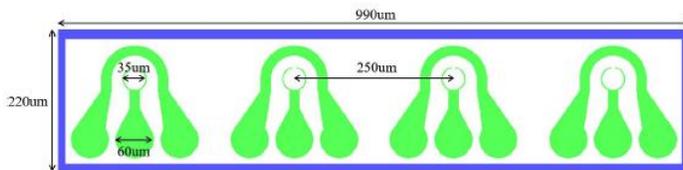
Electro-Optical Characteristics (T _a =25 $^{\circ}$ C unless otherwise stated)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.58	0.6	0.62	A/W	V _R =2V, λ =850nm
Dark Current	I _D		0.1	0.2	nA	V _R =2V
Capacitance	C		85	95	fF	V _R =2V, f=1MHz
Bandwidth	BW		24		GHz	V _R =2V

Note: Optical bandwidth measured at -3dB.

Typical Characteristics



Outline Dimensions (unit: um)



- Chip size is typical 990um x 220um.
- Chip thickness is 150±12.5um.
- Sensitive area is typical 35um in diameter.

Note: Specifications are subject to change without notice.