Non-Hermetic 56Gbps PAM4 (28Gbd) GaAs PIN Photodiode 1x4 Array

PDA4-85A56G

Data Sheet

Description

The PDA4-85A56G is a non-hermetic 1x4 GaAs PIN photodiode array specifically designed for 56Gbps PAM4 (28Gbd) optical data transmission. Featuring a 250µm pitch for straightforward fiber array alignment, this high-performance photodiode offers high responsivity at 850nm, along with low dark current and low capacitance, making it ideal for high-speed fiber optic receivers.

Features

- 1x4 array bar with 250um 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

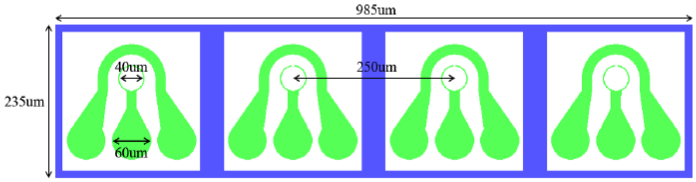
Absolute Maximum Ratings

Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	100	°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_a=25°C unless otherwise stated)

Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Responsivity	R	0.6	0.63	0.65	A/W	V_R=2V, λ=850nm
Dark Current	I_D		0.1	0.2	nA	V_R=2V
Capacitance	C			90	fF	V_R=2V, f=1MHz
Bandwidth	BW		24		GHz	V_R=2V

Outline Dimensions (unit: um)



- Chip size is typical 985um x 235um.
- Chip thickness is 150±12.5um.
- Sensitive area is typical 40um in diameter.

Note: Specifications are subject to change without notice.