850-910nm 56G baud PIN PD Chip



Description

LP-PD5032 56Gbaud High-Speed PIN Photodiode ChipThe LP-PD5032 is a high-performance 850-910nm PIN photodiode chip designed to meet the rigorous demands of next-generation optical communications. Featuring a specialized GSG (Ground-Signal-Ground) electrode structure and a 32um active area, this chip is optimized for high-speed data transmission with minimal signal interference.

Features

- Bandwidth up to 34GHz/channel
- Anti-reflective for 850-910nm
- Φ32um active area
- Low capacitance
- GSG Electrode Structure

Specifications

Parameter	Symbol	Min	Typ	Max	Unit	Test CondDitions
Response range	λ	840	850	910	nm	
Responsivity	R		0.55		A/W	λ=850nm
			0.65		A/W	λ=910nm
Dark current	ID		0.3	1.0	nA	Vr=-5V
Capacitance	C		0.12	0.15	pF	VR=-2V, f=1MHz

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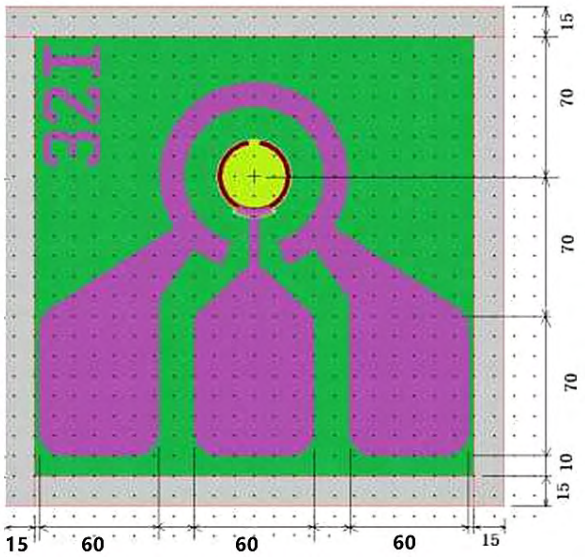
Bandwidth	Bw		34.0		GHz	VR=-2V 3dB down, RL=50Ω

Note: (Tc=25°C, Single Die)

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Reverse voltage	VRmax	20	V
Operating temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +125	°C

Dimensions Diagram (μm)



Dimensions Diagram (μm)

Dimension Parameter

Parameter	Symbol	Value	Unit
Active area diameter	D	32	μm
Bond pad size	-	60x70	μm
Die size	-	250x250	μm
Die thickness	t	150±10%	μm

Precautions for use

This chip is susceptible to damage as a result of ESD. Use of ground straps, antistatic mats, and other standard ESD protective equipment is requisite when handling ortesting an InGaAs or GaAs PIN/APD chip.

Application

- 100Gbps PAM4
- 50Gbps SFP+
- 4x100Gbps QSFP