PDCS38B

High Speed InGaAs/InP Photodiode Chip

REV 09/01

Features

Bottom-illuminated InGaAs/InP photodiode
High speed response: t_{FWHM} 30 ps
On chip coplanar waveguide (Z = 50 Ω)
Diameter of light sensitive area 38 μm
Wire bondable or flip-chip solderable
High responsivity from 980 to 1600 nm

Product Description

The PDCS38B is an InGaAs/InP very high-speed photodiode chip with a tapered coplanar transmission line. The bottom-illuminated p-i-n photodiode structure offers excellent responsivity and high speed of response for the wavelength region 980 to 1600 nm. The photodiode, which achieves full speed already at 1.5 volt bias, is intended for use in high- speed receiver front-ends and for optical measurement equipment with picosecond time resolution.

Specifications @ T=25°C

Parameter		Sym	Min	Typ	Max	Unit
Responsivity	λ = 1550 nm	R		0.85		A/W
	λ = 1300 nm			0.85		
Optical pulse energy		E_p			50	fJ
CW optical power		P_{cw}			3	dBm
Bias voltage		V^+		<2		V
Dark current	V_r = 2.5 V	I_D		10		nA
Bandwidth		B		14		GHz
Optical pulse response		t_{FWHM}		30		ps

Opto Speed™
In case of optoelectronics

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