

Opto Speed

High Speed InGaAs/InP Photodiode Chip

Preliminary

PDCS75

■ FEATURES

InGaAs/InP pin photodiode

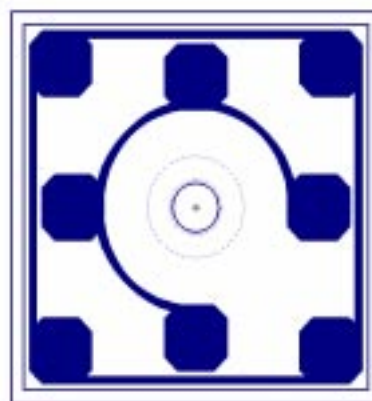
High speed response: t_{FWHM} 100 ps

Diameter of light sensitive area 75 μm

Top or bottom illuminated chip options

Wire bondable or flip chip solderable

High responsivity from 800 to 1600 nm



■ PRODUCT DESCRIPTION

The PDCS75 is an InGaAs/InP very high speed photodiode chip with pad outline and metallization suitable for a wide range of mounting options. The top-illuminated or optional bottom illuminated p-i-n photodiode structure offers excellent responsivity and high speed of response for the wavelength region 800 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	SYMBOL	MIN	TYP	MAX	UNIT
Responsivity $\lambda = 1550 \text{ nm}$ $\lambda = 1300 \text{ nm}$ $\lambda = 850 \text{ nm}$	\mathcal{R}	0.8 0.9 0.4	0.9 0.95 0.5		A/W
Capacitance	C_D		0.5		pF
CW optical power	\mathcal{P}_{CW}			3	dBm
Bias voltage	V^+	1.5	2.5		V
Dark current $V_r = 2.5 \text{ V}$	I_D		10	100	nA
Optical-Electrical Bandwidth	B	3	5		GHz
Optical pulse response	t_{FWHM}		100	120	ps