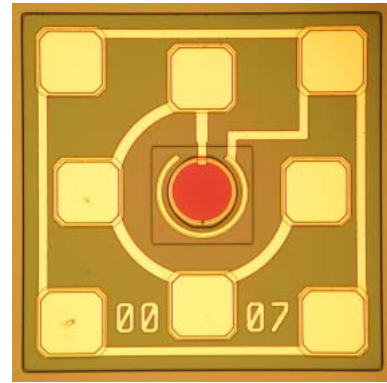


# PDCS75T

## High Speed InGaAs/InP Photodiode Chip



REV 09/01

### Features

Top-illuminated InGaAs/InP pin photodiode  
High speed response:  $t_{FWHM}$  100 ps  
Diameter of light sensitive area 75  $\mu\text{m}$   
Wire bondable or flip-chip solder able  
High responsivity from 800 to 1600 nm

### Product Description

The PDCS75T 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 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 @ $T=25^{\circ}\text{C}$

Parameter		Sym	Min	Typ	Max	Unit
Responsivity	$\lambda = 1550 \text{ nm}$	R		0.85		A/W
	$\lambda = 1300 \text{ nm}$			0.85		
Total capacitance		$C_D$		0.5		pF
CW optical power		$P_{CW}$			3	dBm
Bias voltage		$V^+$		<2		V
Dark current	$V_r = 2.5 \text{ V}$	$I_D$		10		nA
Optical-Electrical Bandwidth		B	3	5		GHz
Optical pulse response		$t_{FWHM}$		100		ps

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