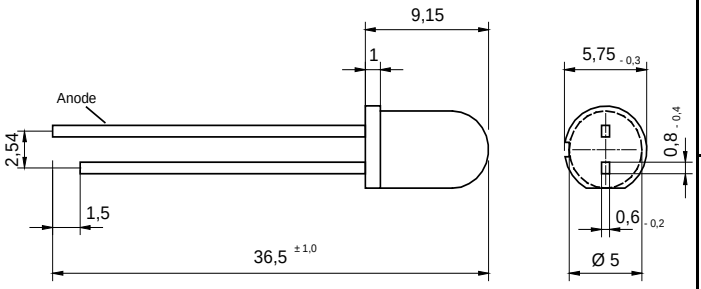
Photodiode EPD-1300-5-0.2

Preliminary 6/21/2007 rev. 06/07

Wavelength	Type	Technology	Case
Infrared	Planar	InGaAs/InP	5 mm plastic lens



Description

InGaAs-Photodiode mounted in standard 5 mm package without standoff . High spectral sensitivity in the infrared range (NIR, SWIR).

Note: Special packages with standoff available on request

Applications

Optical communications,
safety equipment, light barriers

Miscellaneous Parameters

T_{amb} = 25℃, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	0.032	mm²
Temperature coefficient		$T_C(I_D)$	7.4	%/K
Operating temperature range		T_{amb}	-40 to +85	℃
Storage temperature range		T_{stg}	-40 to +100	℃

Optical and Electrical Characteristics

T_{amb} = 25℃, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 10 mA	V_F		1.7		V
Breakdown voltage[2)]	I_R = 10 µA	V_R	5			V
Sensitivity range at 10 %	V_R = 0 V	λ	800		1750	nm
Spectral bandwidth at 50 %	V_R = 0 V	$\Delta\lambda_{0,5}$		680		nm
Responsivity at 1300 nm[1)]	V_R = 0 V	S_λ		0.9		A/W
Dark current	V_R = 5 V	I_D		30	200	pA
Shunt resistance	V_R = 10 mV	R_{SH}	3	5		GΩ
Noise equivalent power	λ =1300 nm	NEP		$4.0x10^{-15}$		$W/\sqrt{Hz}$
Specific detectivity	λ = 1300 nm	D*		$4.5x10^{12}$		$cm \cdot \sqrt{Hz} \cdot W^{-1}$
Junction capacitance	V_R = 0 V	C_J		11		pF
Photo current at 1300 nm*	V_R = 0 V E_e = 1mW/cm²	I_{Ph}		0.95		µA

[1)] measured on bare chip

[2)] for information only

Note: All measurements carried out with *EPIGAP* equipment

Labeling

Type	Lot N°	RD (typ.) [GΩ]	Quantity
EPD-1300-5-0.2			

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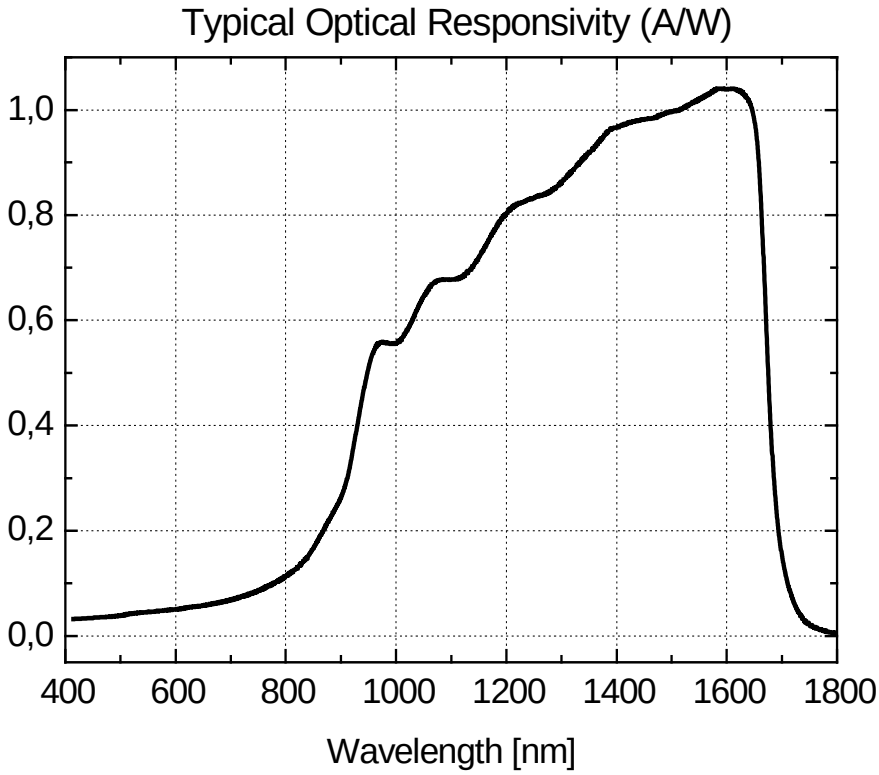
Typical Optical Responsivity (A/W)
1,0
0,8
0,6
0,4
0,2
0,0
400
600
800
1000
1200
1400
1600
1800
Wavelength [nm]