

Wavelength range	Type	Technology	Electrodes
Infrared	Planar	InGaAs/InP	P (anode) up

	typ. dimensions in μm	
	typ. thickness 330 (±20) μm anode (pin 1) bond gold 1.0 μm cathode (rear*) gold alloy, 0.5 μm *also pin 2, for measuring purposes	Description Broadband photodiode with maximum response in the NIR-region (800-1750 nm) Applications Optical communications, safety equipment, light barriers

Miscellaneous Parameters

T_{amb} = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	7.0	mm ²
Operating temperature range		T _{amb}	-40 to +125	°C
Storage temperature range		T _{stg}	-40 to +125	°C
Temperature coefficient of I _D	T = -40...120°C	T _C (I _D)	7.4	%/K

Optical and Electrical Characteristics

T_{amb} = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I _F = 10 mA	V _F		0.6		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	Δλ _{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		5	30	nA
Shunt resistance	V _R = 10 mV	R _{SH}	15	30		MΩ
Noise equivalent power	λ = 1300 nm	NEP		5.2x10 ⁻¹⁴		W/√Hz
Specific detectivity	λ = 1300 nm	D*		5.1x10 ¹²		cm · √Hz · W ⁻¹
Junction capacitance	V _R = 0 V	C _J		1000	1300	pF

¹⁾ measured on bare chip on TO-18 header

²⁾ for information only

Labeling

Type	Typ. I _D [nA]	Typ. S _λ [A/W]	Lot N°	Quantity
EPC-1300-3.0-1				

Packing: Chips on adhesive film with wire-bond side on top

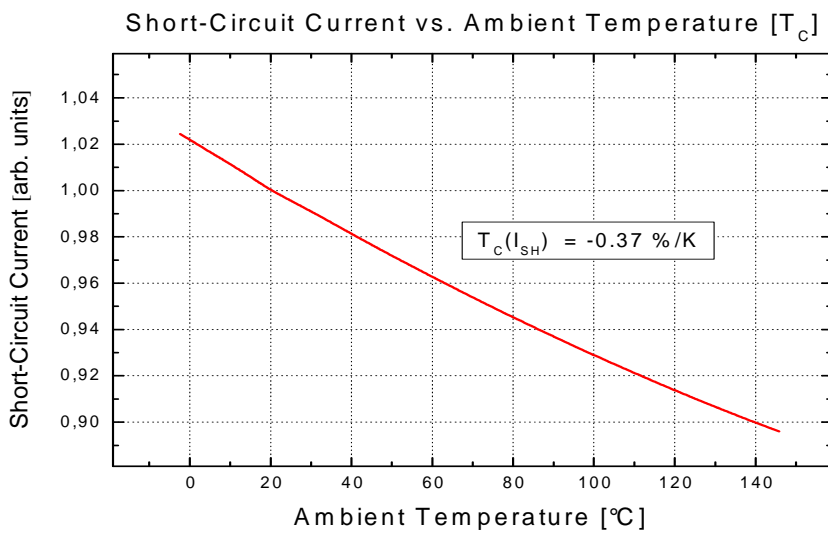
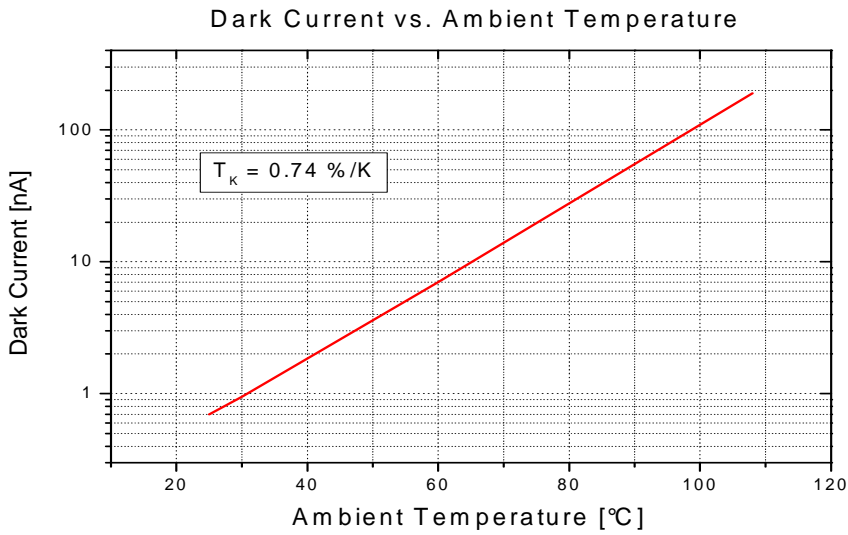
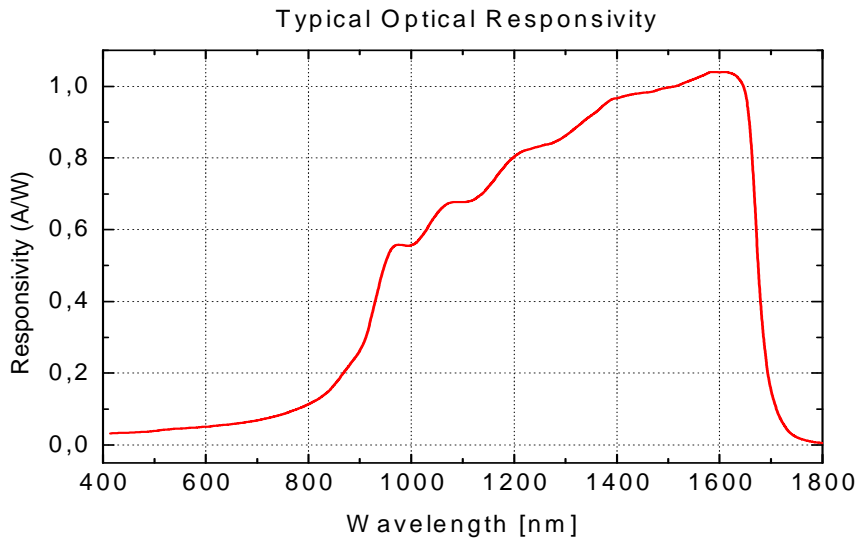
*Note: All measurements carried out with *EPIGAP* equipment

We reserve the right to make changes to improve technical design and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each application by the customers themselves.

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