

Wavelength	Type	Technology	Case
Infrared	SMD	GaAs	SMD 1206

all dimensions: mm
all tolerances: ± 0,1

Description

Selective photodiode with narrow bandwidth and high spectral sensitivity in the infrared range (810...950 nm). Compact design in standard SMD package allows for easy circuit board mounting and assembling of arrays.

Applications

Alarm systems, light barriers, special sensors

Miscellaneous Parameters

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

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	0.62	mm ²
Temperature coefficient of I _D		TCl _D	5	%/K
Operating temperature range		T _{amb}	-20 to +85	°C
Storage temperature range		T _{stg}	-40 to +125	°C

Optical and Electrical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage ¹⁾	I _R = 10 μA	V _R	5			V
Dark current	V _R = 1 V	I _D		1.0	2.5	nA
Peak sensitivity wavelength	V _R = 0 V	λ _p		890		nm
Responsivity at λ _p	V _R = 0 V	S _λ	0.3	0.55		A/W
Sensitivity range at 10% ¹⁾	V _R = 0 V	λ _{min} , λ _{max}	800		960	nm
Spectral bandwidth at 50%	V _R = 0 V	Δλ _{0.5}		115		nm
Shunt resistance	V _R = 10 mV	R _{SH}		205		GΩ
Noise equivalent power	λ = 880 nm	NEP		3.2x10 ⁻¹⁴		W/√Hz
Specific detectivity	λ = 880 nm	D*		2.4x10 ¹²		cm · √Hz · W ⁻¹
Junction capacitance	V _R = 0 V	C _J		500		pF
Switching time (R _L = 50 Ω)	V _R = 1 V	t _r , t _f		175		ns

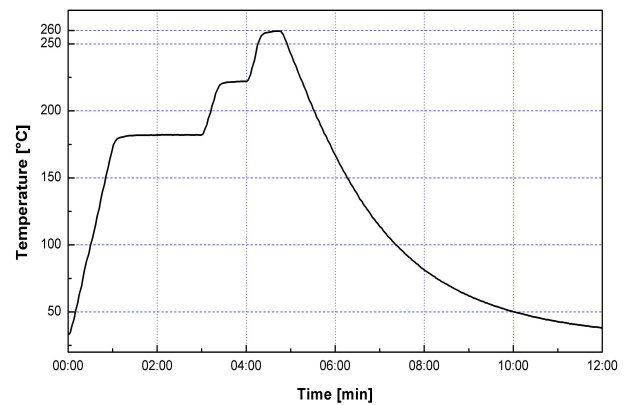
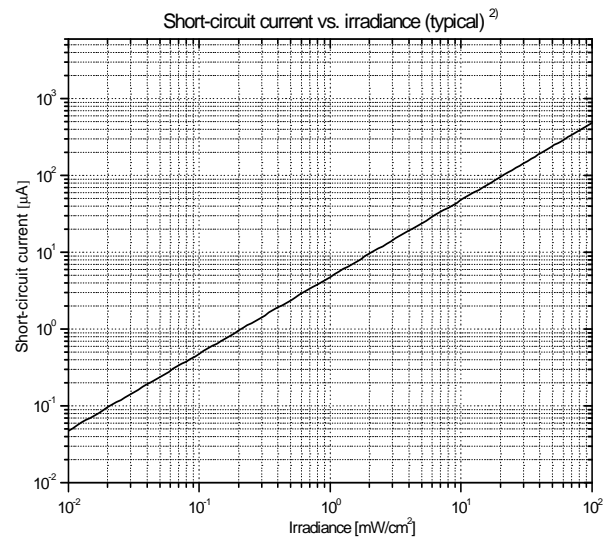
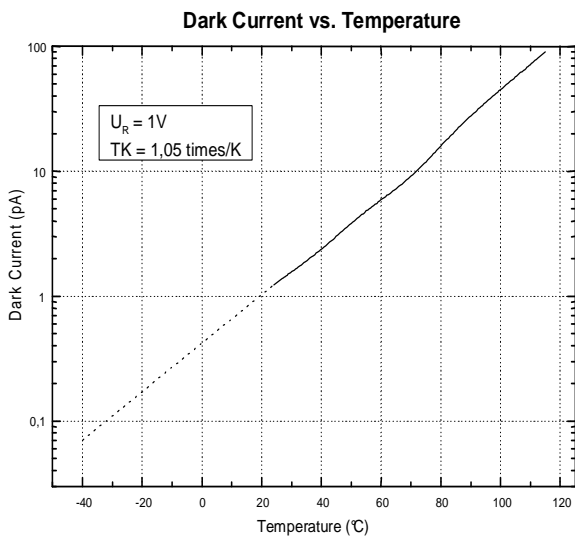
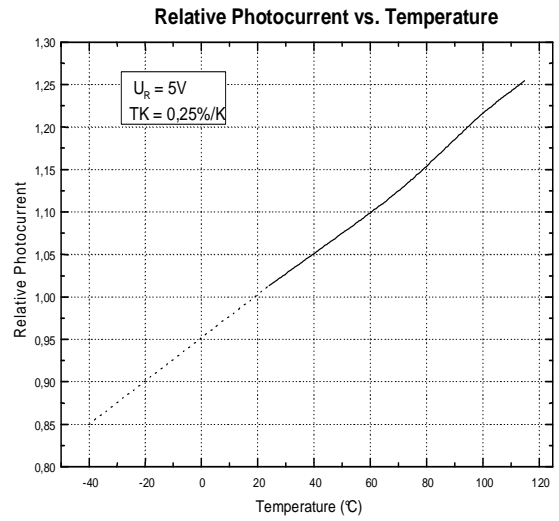
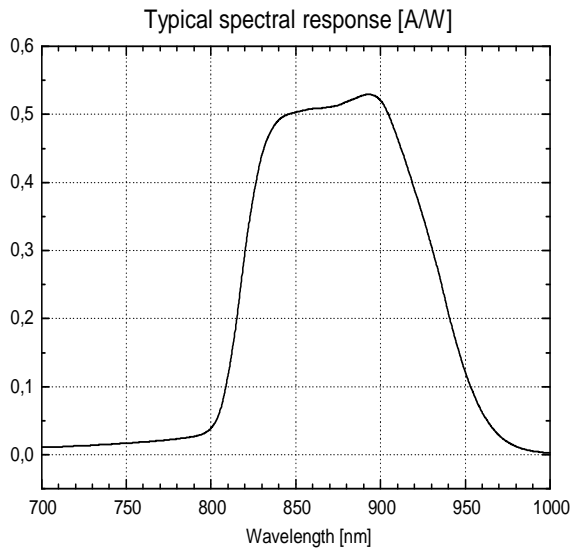
¹⁾for information only

Labeling

Type	Lot N°	Typ. S _λ [A/W]	Quantity
EPD-880-1-0.9			

*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 customer application by the customer.



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