

Wavelength	Type	Technology	Case
Infrared	Integrated filter	AlGaAs/GaAs	3 mm plastic lens

	<p>Description Selective photodiode mounted in standard 3 mm package without standoff. Narrow bandwidth and high spectral sensitivity in the infrared range (810...950 nm).</p> <p>Note: Special packages with standoff available on request</p> <p>Applications Alarm systems, light barriers, special sensors, analytics, optical communication</p>
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Miscellaneous Parameters

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	0.62	mm ²
Temperature coefficient of I_D		$T_C(I_D)$	5	%/K
Operating temperature range		T_{amb}	-20 to +85	°C
Storage temperature range		T_{stg}	-30 to +100	°C
Soldering Temperature	$t \leq 3$ s, 3 mm from case	T_{sld}	260	°C
Acceptance angle at 50% S_{λ}		φ	60	deg.

Optical and Electrical Characteristics

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage ¹⁾	$I_R = 10 \mu\text{A}$	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	$\lambda_{min}, \lambda_{max}$	800		960	nm
Spectral bandwidth at 50%	$V_R = 0$ V	$\Delta\lambda_{0.5}$		115		nm
Shunt resistance	$V_R = 10$ mV	R_{SH}		115		GΩ
Noise equivalent power	$\lambda = 880$ nm	NEP		3.3×10^{-14}		W/√Hz
Specific detectivity	$\lambda = 880$ nm	D^*		2.4×10^{12}		cm · √Hz · W ⁻¹
Junction capacitance	$V_R = 0$ V	C_J		120		pF
Switching time ($R_L = 50 \Omega$)	$V_R = 1$ V	t_r, t_f		200		ns
Photo-current at $\lambda_p = 875$ nm	$V_R = 0$ V $E_e = 1 \text{ mW/cm}^2$	I_{Ph}		14		μA

¹⁾for information only

²⁾Halogen lamp source with appropriate filter

Note: All measurements carried out with JENOPTIK Polymer Systems equipment

Labeling

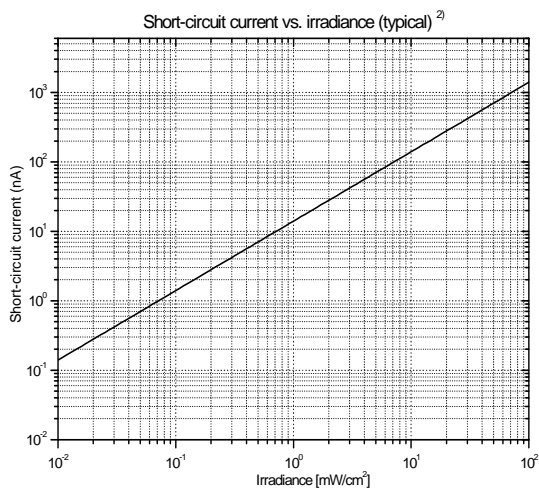
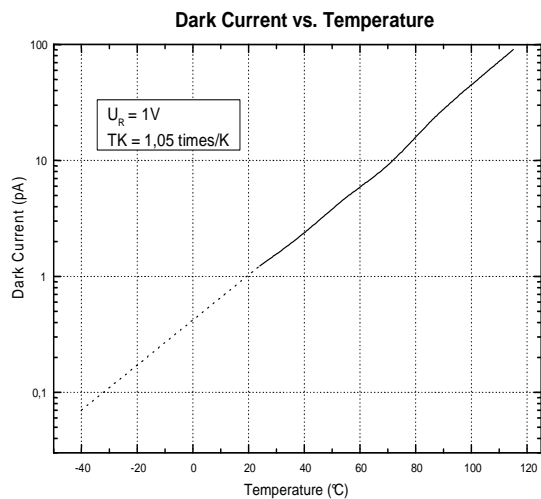
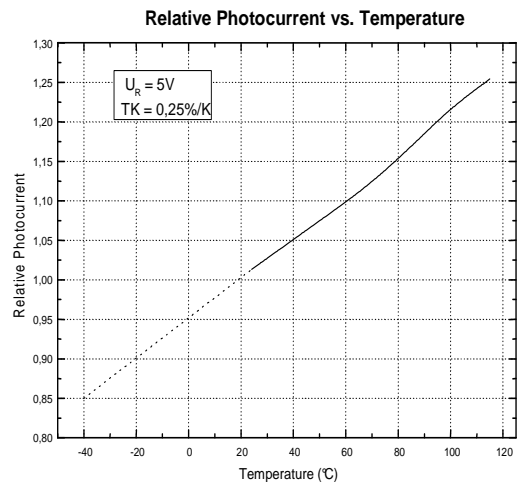
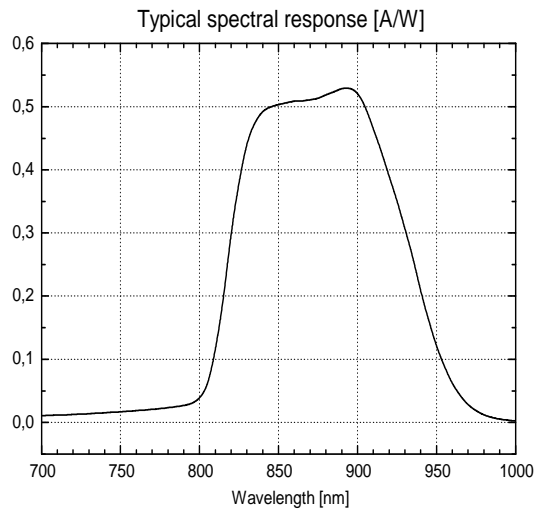
Type	Lot N°	R_D (typ.) [GΩ]	Quantity
EPD-880-3-0.9			

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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