

Wavelength	Type	Technology	Case
Blue-Green	water clear	GaP	5 mm plastic lens

**Description**  
 Selective photodiode mounted in standard 5 mm package with standoff. Narrow bandwidth and high spectral sensitivity in the range of max. eye responsivity (480...560 nm).

Note: Special packages without standoff available on request

**Applications**  
 light barriers, automation, optical analytics

**Miscellaneous Parameters**

T<sub>amb</sub> = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	0.62	mm <sup>2</sup>
Temperature coefficient of I <sub>D</sub>		T <sub>C</sub> (I <sub>D</sub> )	5	%/K
Operating temperature range		T <sub>amb</sub>	-20 to +85	°C
Storage temperature range		T <sub>stg</sub>	-30 to +100	°C
Soldering Temperature	t ≤ 3 s, 3 mm from case	T <sub>slid</sub>	260	°C
Acceptance angle at 50% S <sub>λ</sub>		φ	20	deg.

**Optical and Electrical Characteristics**

T<sub>amb</sub> = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage <sup>1)</sup>	I <sub>R</sub> = 10 μA	V <sub>R</sub>	5			V
Dark current	V <sub>R</sub> = 5 V	I <sub>D</sub>		5	30	pA
Peak sensitivity wavelength	V <sub>R</sub> = 0 V	λ <sub>p</sub>		525		nm
Responsivity at λ <sub>p</sub>	V <sub>R</sub> = 0 V	S <sub>λ</sub>		0.3		A/W
Sensitivity range at 1% <sup>1)</sup>	V <sub>R</sub> = 0 V	λ <sub>min</sub> , λ <sub>max</sub>	410		580	nm
Spectral bandwidth at 50%	V <sub>R</sub> = 0 V	Δλ <sub>0.5</sub>		70		nm
Shunt resistance	V <sub>R</sub> = 10 mV	R <sub>SH</sub>		300		GΩ
Noise equivalent power	λ = 525 nm	NEP		4.3x10 <sup>-15</sup>		W/√Hz
Specific detectivity	λ = 525 nm	D*		1.8x10 <sup>13</sup>		cm · √Hz · W <sup>-1</sup>
Junction capacitance	V <sub>R</sub> = 0 V	C <sub>J</sub>		100		pF
Switching time (R <sub>L</sub> = 50 Ω)	V <sub>R</sub> = 1 V	t <sub>r</sub> , t <sub>f</sub>		35		ns
Photocurrent at illuminant A <sup>1,2)</sup>	V <sub>R</sub> = 0 V E <sub>V</sub> = 1000 lx	I <sub>Ph</sub>		270		nA

<sup>1)</sup>for information only

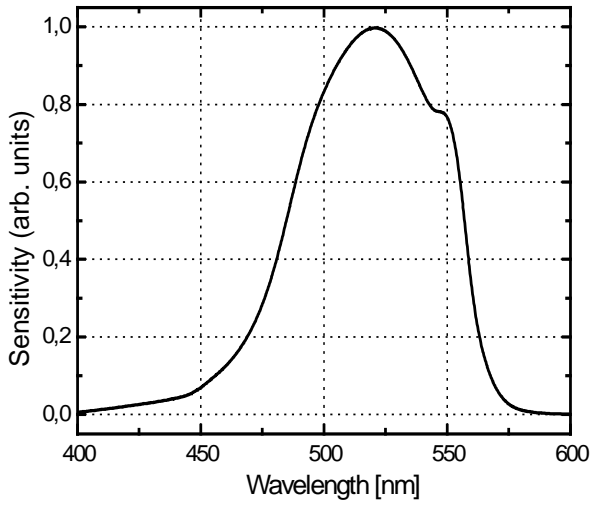
<sup>2)</sup> Standard light source with a color temperature of 2856 K

Note: All measurements carried out with *EPIGAP* equipment

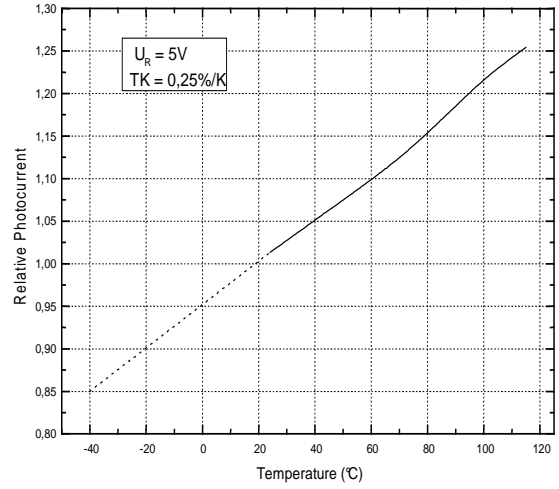
**Labeling**

Type	Lot N°	R <sub>D</sub> (typ.) [GΩ]	Quantity
EPD-525-5-0.9			

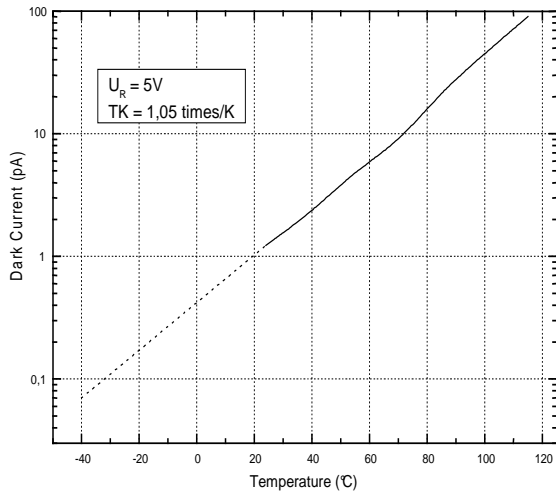
Responsivity spectrum



Relative Photocurrent vs. Temperature



Dark Current vs. Temperature



Short-circuit current vs. illuminance (typical) <sup>2)</sup>

