

Wavelength	Type	Technology	Case
Blue-Green	water clear	GaP	3 mm plastic lens

	<p><b>Description</b></p> <p>Selective photodiode mounted in standard 3 mm package with standoff. Narrow bandwidth and high spectral sensitivity in the range of max. eye responsivity (500...600 nm).</p> <p>Note: Special packages without standoff available on request</p> <p><b>Applications</b></p> <p>light barriers, automation, optical analytics</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	0.17	mm <sup>2</sup>
Temperature coefficient of $I_D$		$T_C(I_D)$	5	%/K
Operating temperature range		$T_{amb}$	-20 to +85	°C
Storage temperature range		$T_{stg}$	-40 to +125	°C
Soldering Temperature	$t \leq 3$ s, 3 mm from case	$T_{sld}$	260	°C
Acceptance angle at 50% $S_{\lambda}$		$\varphi$	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 <sup>1)</sup>	$I_R = 10 \mu\text{A}$	$V_R$	5			V
Dark current	$V_R = 5$ V	$I_D$		5	30	pA
Peak sensitivity wavelength	$V_R = 0$ V	$\lambda_p$		525		nm
Responsivity at $\lambda_p$	$V_R = 0$ V	$S_{\lambda}$		0.3		A/W
Sensitivity range at 1% <sup>1)</sup>	$V_R = 0$ V	$\lambda_{min}, \lambda_{max}$	500		600	nm
Spectral bandwidth at 50%	$V_R = 0$ V	$\Delta\lambda_{0.5}$		70		nm
Shunt resistance	$V_R = 10$ mV	$R_{SH}$		310		GΩ
Noise equivalent power	$\lambda = 525$ nm	NEP		$4.3 \times 10^{-15}$		W/ $\sqrt{\text{Hz}}$
Specific detectivity	$\lambda = 525$ nm	$D^*$		$9.6 \times 10^{12}$		cm · $\sqrt{\text{Hz}}$ · W <sup>-1</sup>
Junction capacitance	$V_R = 0$ V	$C_J$		25		pF
Switching time ( $R_L = 50 \Omega$ )	$V_R = 1$ V	$t_r, t_f$		30		ns
Photocurrent at illuminant A <sup>1,2)</sup>	$V_R = 0$ V $E_V = 1000$ lx	$I_{Ph}$		67		nA

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

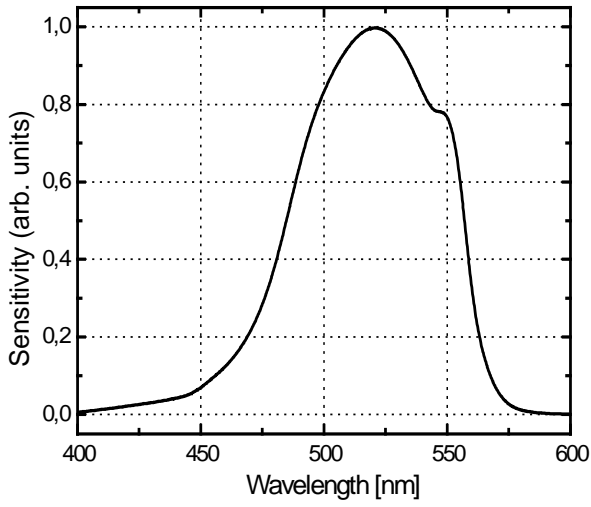
<sup>2)</sup> Standard light source with a color temperature of 2856 K

Note: All measurements carried out with *EPIGAP* equipment

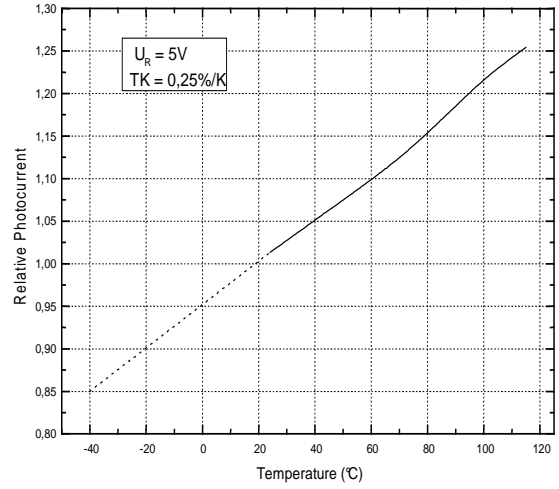
### Labeling

Type	Lot N°	$R_D$ (typ.) [GΩ]	Quantity
EPD-525-3-0.5			

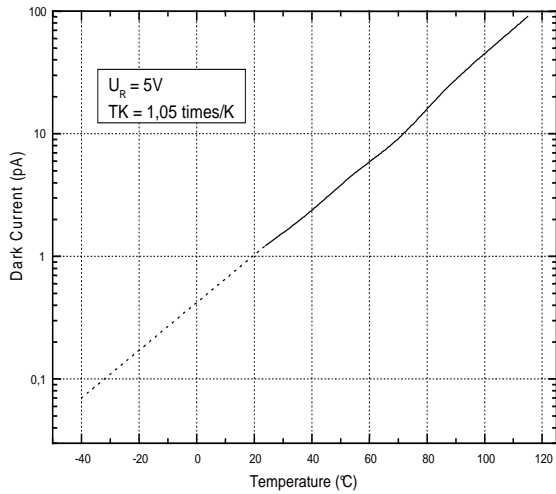
Responsivity spectrum



Relative Photocurrent vs. Temperature



Dark Current vs. Temperature



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

