

Wavelength	Type	Technology	Case
Green	SMD	GaP	SMD 1206

	<p>Description</p> <p>Narrow bandwidth and high spectral sensitivity in the green visible range (500...600 nm), compact design in standard SMD package allows for easy circuit board mounting and assembling of arrays</p> <p>Applications</p> <p>Alarm systems, light barriers, special sensors for automotive industry, for nearly V_{λ} matched detectors</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		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

$T_{amb} = 25^{\circ}\text{C}$, 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	$V_R = 5 \text{V}$	I_D		5	30	pA
Peak sensitivity wavelength	$V_R = 0 \text{V}$	λ_p		525		nm
Responsivity at λ_p	$V_R = 0 \text{V}$	S_{λ}		0.3		A/W
Sensitivity range at 1% ¹⁾	$V_R = 0 \text{V}$	$\lambda_{min}, \lambda_{max}$	410		580	nm
Spectral bandwidth at 50%	$V_R = 0 \text{V}$	$\Delta\lambda_{0.5}$		70		nm
Shunt resistance	$V_R = 10 \text{mV}$	R_{SH}		300		GΩ
Noise equivalent power	$\lambda = 525 \text{nm}$	NEP		4.4×10^{-15}		$\text{W}/\sqrt{\text{Hz}}$
Specific detectivity	$\lambda = 525 \text{nm}$	D^*		1.8×10^{13}		$\text{cm} \cdot \sqrt{\text{Hz}} \cdot \text{W}^{-1}$
Junction capacitance	$V_R = 0 \text{V}$	C_J		100		pF
Switching time ($R_L = 50 \Omega$)	$V_R = 1 \text{V}$	t_r, t_f		35		ns
Photocurrent at illuminant A ^{1,2)}	$V_R = 0 \text{V}$ $E_v = 1000 \text{lx}$	I_{Ph}		70		nA

¹⁾for information only

²⁾ Standard light source with a color temperature of 2856 K

Labeling

Type	Lot N°	Typ. S_{λ} [A/W]	Quantity
EPD-525-1-0.9			

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

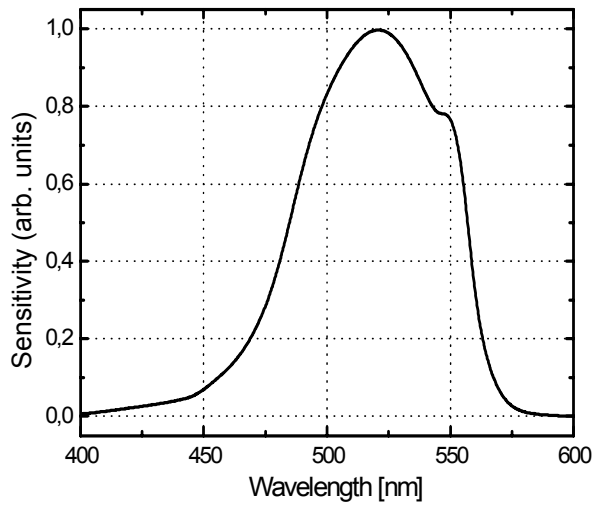
We reserve the right to make changes to improve technical design and may do so without further notice.

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

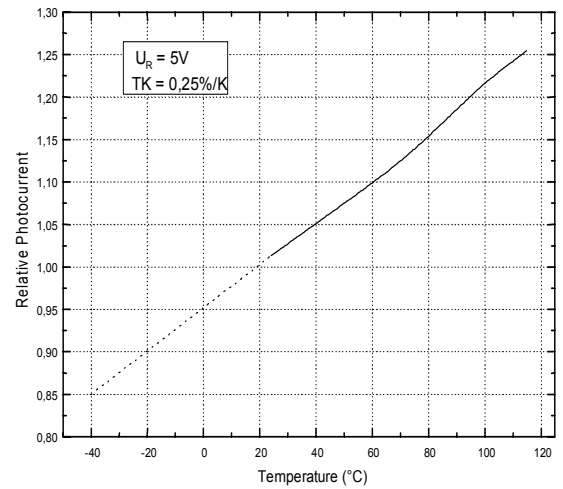
EPIGAP Optoelektronik GmbH, D-12555 Berlin, Köpenicker Str.325 b, Haus 201

Tel.: +49-30-6576 2543, Fax : +49-30-6576 2545

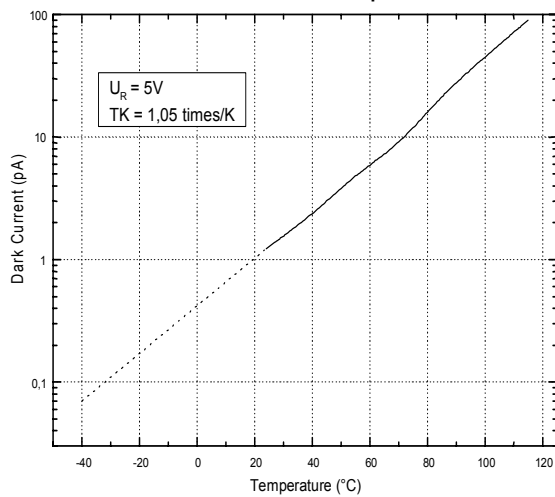
Optical responsivity (typically)



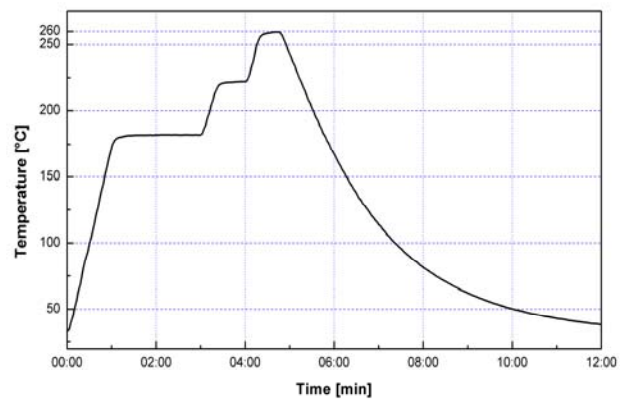
Relative Photocurrent vs. Temperature



Dark Current vs. Temperature



Allowable soldering profile



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