

Wavelength range	Type	Technology	Electrodes
Green, selective	Integrated filter	GaP	P (anode) up

	typ. dimensions (μm)	
	<u>typ. thickness</u> 270 (±20) μm <u>anode</u> gold alloy, 1.5 μm <u>cathode</u> gold alloy, 0.5 μm	Description Narrow bandwidth and high spectral sensitivity in the range of max. eye responsivity (480...560 nm), low cost chip Applications Nearly V_{λ} matched detection, measurement systems, daylight sensors

Miscellaneous Parameters

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

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	0.17	mm ²
Operating temperature range		T_{amb}	-40 to +125	°C
Storage temperature range		T_{stg}	-40 to +125	°C
Temperature coefficient of I_D	$T = -40...120^{\circ}\text{C}$	TC_{ID}	4.7	%/K
Temperature coefficient of I_{PH}	$T = -40...120^{\circ}\text{C}$	TC_{IPH}	0.25	%/K
Temperature coefficient of λ_c	$T = -40...120^{\circ}\text{C}$	TC_{λ_c}	0.15	nm/K

Optical and Electrical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Spectral range at 0.5 max.	$V_R = 0\text{ V}$	$\lambda_{0.5}$	480		560	nm
Responsivity at 525 nm ¹	$V_R = 0\text{ V}$	S_{λ}	0.04	0.08		A/W
Responsivity at 525 nm ²	$V_R = 0\text{ V}$	S_{λ}	0.15	0.30		A/W
Spectral bandwidth at 50%	$V_R = 0\text{ V}$	$\Delta\lambda_{0.5}$		75		nm
Dark current ($E_e = 0\text{ W/m}^2$)	$V_R = 5\text{ V}$	I_D		5	30	pA
Central sensitivity wavelength	$V_R = 0\text{ V}$	λ_c	510	525	535	nm

¹Measured on bare chip on TO-18 header

²Measured on epoxy covered chip on TO-18 header

Labeling

Type	Typ. I_D [pA]	Typ. S_{λ} [A/W]	Lot N°	Quantity
EPC-525-0.5-1				

Packing: Chips on adhesive film with wire-bond side on top

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

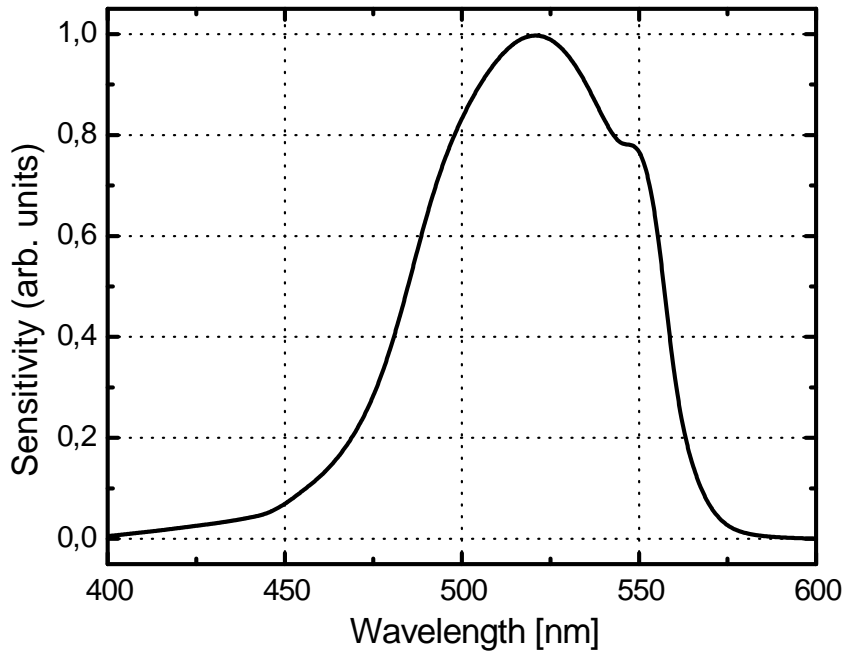
We reserve the right to make changes to improve technical design and may do so without further notice.

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

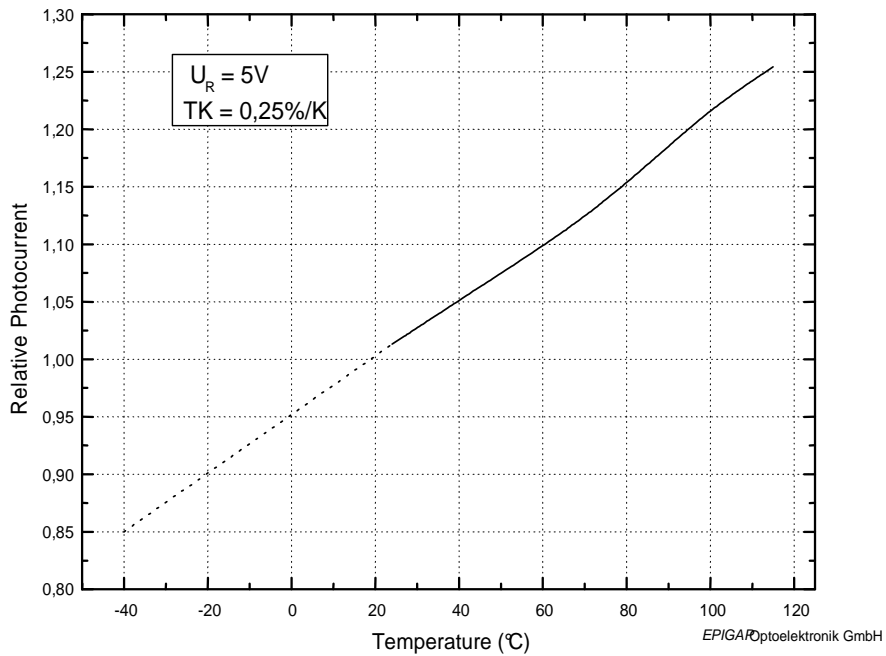
EPIGAP Optoelektronik GmbH, D-12555 Berlin, Köpenicker Str.325 b, Haus 201

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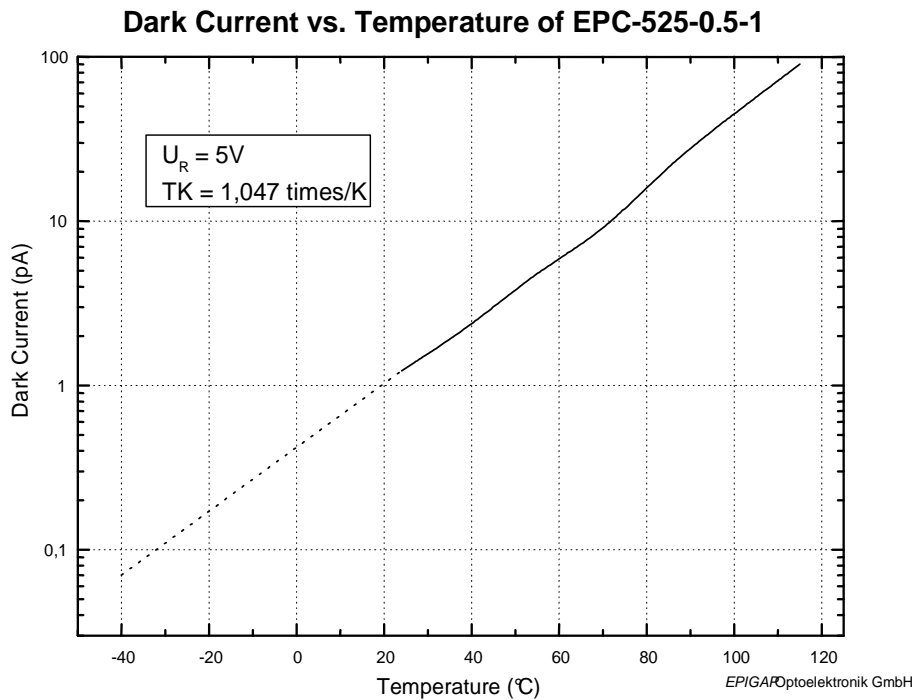
Responsivity spectrum



Relative Photocurrent vs. Temperature of EPC-525-0.5-1



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