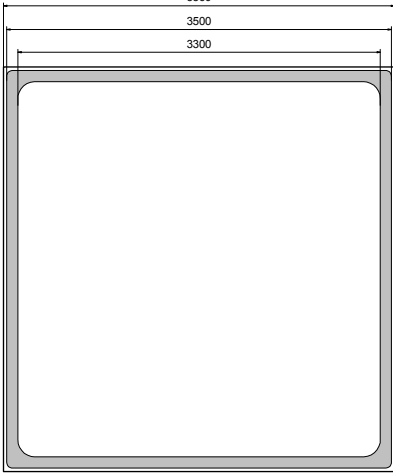


Wavelength range	Type	Technology	Electrodes
UV-blue-green	Schottky Contact	GaP	P (anode) up

 <p style="text-align: center;">PD-06</p>	typ. dimensions (µm)	
	typ. thickness 300 µm <u>anode</u> bond gold 1.0 µm <u>cathode</u> gold alloy, 0.5 µm	Description High spectral sensitivity in the blue and ultraviolet range, low dark currents, low cost chip with high degradation stability Applications special light barriers, sensors for flame control and automation

Miscellaneous Parameters

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

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	10.9	mm ²
Temperature coefficient of I_D		$T_C(I_D)$	7.0	%/K
Operating temperature range		T_{amb}	-40 to +125	°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
Dark current	$V_R = 5\text{ V}$	I_D		20	80	pA
Peak sensitivity wavelength	$V_R = 0\text{ V}$	λ_p		440		nm
Responsivity at λ_p^*	$V_R = 0\text{ V}$	S_λ		0.17		A/W
Sensitivity range at 1%	$V_R = 0\text{ V}$	$\lambda_{min}, \lambda_{max}$	<110		570	nm
Spectral bandwidth at 50%	$V_R = 0\text{ V}$	$\Delta\lambda_{0.5}$		180		nm
Dark resistance	$V_R = 10\text{ mV}$	R_D	50	70		GΩ
Noise equivalent power	$\lambda = 440\text{ nm}$	NEP		1.5×10^{-14}		W/√Hz
Junction capacitance	$V_R = 0\text{ V}$	C_J		2.6		nF
Switching time ($R_L = 50\ \Omega$)	$V_R = 5\text{ V}$	t_r, t_f		1/130		ns

*Measured on bare chip on TO-18 header with *EPIGAP* equipment

Labeling

Type	Typ. I_D [pA]	Typ. S_λ [A/W]	Lot N°	Quantity
EPC-440-3.6				

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

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

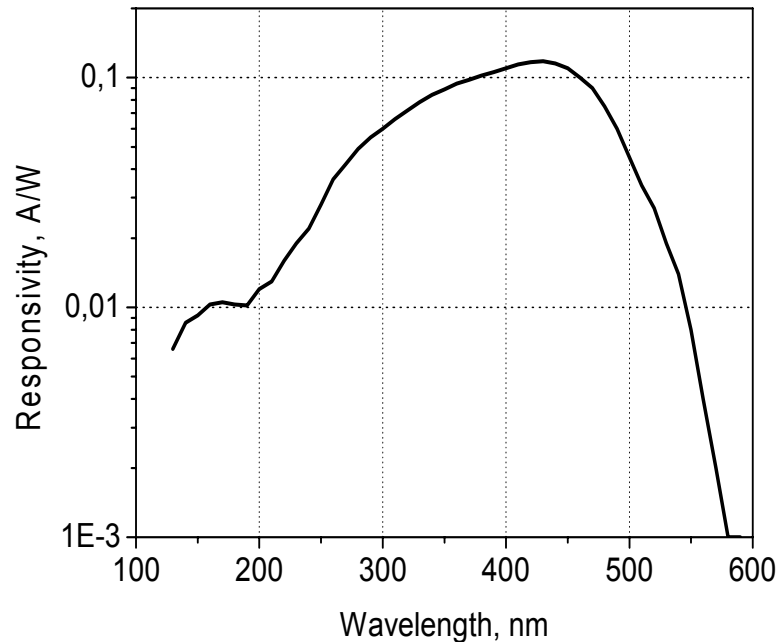
We reserve the right to make changes to improve technical design and may do so without further notice.

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

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

Typical responsivity spectrum



Handling instructions of UV-photodiode dies on blue tape (Nitto's SWT 20)

EPIGAP's UV-photodiode dies are delivered on adhesive blue tape rings. For mounting these dies have to be removed from the tape. They are sensitive to surface touching so they should only be handled from the side. To minimize mechanical stress or chipping use only plastic tweezers or die collets for picking. Because larger dies are stronger stuck to the tape use one round point needle of about 1mm diameter or several pin point needles from the rear side to loosen the dies before picking.