

Wavelength	Type	Technology	Case
UV	Schottky Contact	GaP	TO-46 + UG-11 filter

	<b>Description</b> Wide bandwidth and high spectral sensitivity in the UV range (245 nm - 400 nm), mounted in hermetically sealed TO-46 package with UG11 UV filter-glass window
	<b>Applications</b> Medical engineering (dermatology), output check of UV - lamps and gas burner flame, measurement and control of ecological parameters, radiation control for a solarium, UV water purification facilities

### Miscellaneous Parameters

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

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	0.51	mm <sup>2</sup>
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
Acceptance angle at 50% $S_{\lambda}$		$\varphi$	50	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	$V_R = 5 \text{ V}$	$I_D$		5	20	pA
Peak sensitivity wavelength	$V_R = 0 \text{ V}$	$\lambda_p$		365		nm
Responsivity at $\lambda_p$	$V_R = 0 \text{ V}$	$S_{\lambda}$		0.07		A/W
Sensitivity range at 1%	$V_R = 0 \text{ V}$	$\lambda_{min}, \lambda_{max}$	245		400	nm
Spectral bandwidth at 50%	$V_R = 0 \text{ V}$	$\Delta\lambda_{0.5}$		85		nm
Shunt resistance	$V_R = 10 \text{ mV}$	$R_{SH}$	100	125		GΩ
Noise equivalent power	$\lambda = 365 \text{ nm}$	NEP		$1.9 \times 10^{-14}$		$\text{W}/\sqrt{\text{Hz}}$
Specific detectivity	$\lambda = 365 \text{ nm}$	$D^*$		$3.8 \times 10^{12}$		$\text{cm} \cdot \sqrt{\text{Hz}} \cdot \text{W}^{-1}$
Junction capacitance	$V_R = 0 \text{ V}$	$C_J$		120		pF
Switching time ( $R_L = 50 \Omega$ )	$V_R = 5 \text{ V}$	$t_r, t_f$		1/10		ns
Photo current at $\lambda = 365 \text{ nm}$ <sup>2)</sup>	$V_R = 0 \text{ V}$ $E_e = 1 \text{ mW}/\text{cm}^2$	$I_{Ph}$		0.13		$\mu\text{A}$

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

<sup>2)</sup>measured with common halogen lamp source and appropriate filter

Note: All measurements carried out with *EPIGAP* equipment

### Labeling

Type	Lot N°	$R_D$ (typ.) [GΩ]	Quantity
EPD-365-0-0.9			

Typical responsivity

