

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

	Description 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
	Applications 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 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
Acceptance angle at 50% S_{λ}		φ	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 ¹⁾	$I_R = 10 \mu\text{A}$	V_R	5			V
Dark current	$V_R = 5 \text{ V}$	I_D		5	20	pA
Peak sensitivity wavelength	$V_R = 0 \text{ V}$	λ_p		365		nm
Responsivity at λ_p	$V_R = 0 \text{ V}$	S_{λ}		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		1.9×10^{-14}		$\text{W}/\sqrt{\text{Hz}}$
Specific detectivity	$\lambda = 365 \text{ nm}$	D^*		3.8×10^{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 $\lambda = 365 \text{ nm}$ ²⁾	$V_R = 0 \text{ V}$ $E_e = 1 \text{ mW}/\text{cm}^2$	I_{Ph}		0.13		μA

¹⁾for information only

²⁾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

