

Data Sheet

UV photodiode

EOPD-365-0-1.4

Radiation	Type	Case
Ultraviolet	GaP Schottky	TO-46, UV glass + UG11 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 solarium, UV water purification facilities

Maximum Ratings

T_{amb} = 25°C, unless otherwise specified

Parameter	Symbol	Value	Unit
Active area	A	1.2	mm ²
Temperature coefficient of I _D	TC(I _D)	7	%/K
Operating temperature range	T _{amb}	-40 to +70	°C
Storage temperature range	T _{stg}	-40 to +100	°C
Acceptance angle at 50% S _λ	φ	50	deg.

Optical and Electrical Characteristics

T_{amb} = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage ¹⁾	I _R =10 μA	V _R	5			V
Dark current	V _R =5 V	I _D		5	30	pA
Peak sensitivity wavelength	V _R =0 V	λ _p		365		nm
Responsivity at λ _p	V _R =0 V	S _λ		0.07		A/W
Spectral bandwidth at 50% of S _λ	V _R =0 V	Δλ _{0.5}		85		nm
Sensitivity range at 1% of S _λ	V _R =0 V	λ _{min} , λ _{max}	245		400	nm
Noise equivalent power	λ = 365 nm	NEP	1.8 x 10 ⁻¹⁴			W/√Hz
Specific detectivity	λ = 365 nm	D*	5.9 x 10 ¹²			cm·√Hz·W ⁻¹
Junction capacitance	V _R =0 V	C _j		250		pF
Switching times (R _L = 50 Ω)	V _R =5 V	t _r , t _f		1; 20		ns
Shunt resistance	V _R =10 mV	R _{SH}	150	200		GΩ
Photocurrent at λ=365 nm	V _R =0 V	I _{Ph}		0.3		μA
	E _e =1 mW/cm ²					

¹⁾ for information only

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EOPD-365-0-1.4

page 1 of 2
Rev. 03, 2015