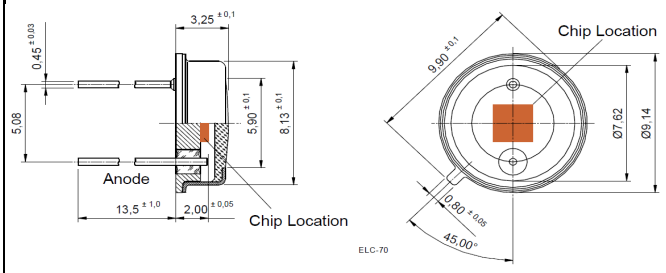
EPIGAP Optronic GmbH
Koepenicker Str. 325b
D-12555 Berlin
Fon: +49 (0)30 657637 60
Fax: +49 (0)30 657637 70
sales@epigap-optronic.de

Data Sheet

UV photodiode EOPD-440-0-2.5

Rev. 04, 2017

Radiation	Type	Technology	Case
UV - visible	Schottky contact	GaP	TO-39



All sizes in mm

Description:

Wide bandwidth and high spectral sensitivity in the UV and visible range (190 nm - 570 nm), mounted in hermetically sealed TO-39 package with UV-glass window

Applications:

Medical engineering (dermatology), output check of UV - lamps and oil or gas burner flame, measurement and control of ecological parameters, radiation control for a solarium, UV water purification facilities

Maximum Ratings

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

Parameter	Symbol	Value	Unit
Active area	A	4.8	mm^2
Temperature coefficient of dark current	TCI_D	7	%/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	135	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		15	40	pA
Peak sensitivity wavelength	V_R=0 V	λ_p		440		nm
Responsivity at λ_P	V_R=0 V	S_λ	0.1	0.13		A/W
Sensitivity range at 1% of S_λ	V_R=0 V	λ_{min}, λ_{max}	190		570	nm
Spectral bandwidth at 50% of S_λ	V_R=0 V	$\Delta\lambda_{0.5}$		180		nm
Shunt resistance	V_R=10 mV	R_{SH}	80	100		GΩ
Noise equivalent power	λ = 440 nm	NEP		1.3×10^{-14}		$W/\sqrt{Hz}$
Specific detectivity	λ = 440 nm	D*		1.7×10^{13}		$cm \cdot \sqrt{Hz} \cdot W^{-1}$
Junction capacitance	V_R=0 V	C_J		1000		pF
Photocurrent at = 440 nm [1]	V_R=0 V E_e=1 mW/cm²	I_{ph}		6.5		µA

[1] for information only

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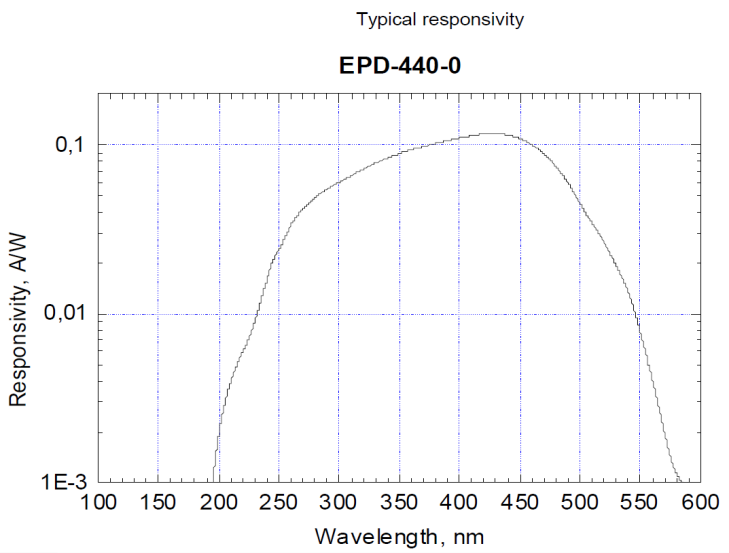

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RoHS COMPLIANT Pb Pb-Free