

Wavelength	Type	Technology	Case
UV	Schottky Contact	GaP	TO-39 + sapphire window

	<p><b>Description</b></p> <p>Wide bandwidth and high sensitivity from VUV up to the visible spectrum (150 nm - 550 nm), mounted in hermetically sealed TO-39 package with sapphire window</p> <p><b>Applications</b></p> <p>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</p>
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### Miscellaneous Parameters

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

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	10.9	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% $S_{\lambda}$		$\varphi$	120	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	$V_R = 5 \text{ V}$	$I_D$		20	80	pA
Peak sensitivity wavelength	$V_R = 0 \text{ V}$	$\lambda_p$		440		nm
Responsivity at $\lambda_p$	$V_R = 0 \text{ V}$	$S_{\lambda}$		0.17		A/W
Sensitivity range at 1%	$V_R = 0 \text{ V}$	$\lambda_{min}, \lambda_{max}$	150		550	nm
Spectral bandwidth at 50%	$V_R = 0 \text{ V}$	$\Delta\lambda_{0.5}$		180		nm
Shunt resistance	$V_R = 10 \text{ mV}$	$R_{SH}$	50	70		GΩ
Noise equivalent power	$\lambda = 440 \text{ nm}$	NEP		$1.5 \times 10^{-14}$		$\text{W}/\sqrt{\text{Hz}}$
Specific detectivity	$\lambda = 440 \text{ nm}$	$D^*$		$2.2 \times 10^{12}$		$\text{cm} \cdot \sqrt{\text{Hz}} \cdot \text{W}^{-1}$
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
Photo current at $\lambda = 254 \text{ nm}$ <sup>1,2)</sup>	$V_R = 0 \text{ V}$ $E_e = 1 \text{ mW}/\text{cm}^2$	$I_{Ph}$		5.4		$\mu\text{A}$

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

<sup>2)</sup>measured with Hg-LP-VUV/UV-emitter as radiation source

Note: All measurements carried out with *EPIGAP* equipment

### Labeling

Type	Lot N°	$R_D$ (typ.) [GΩ]	Quantity
EPD-150-0-3.6 <i>EPIGAP</i>	Obtrotechnik GmbH, D-12555 Berlin, Köpenicker Str.325 b, Haus 201		

Typical responsivity

EPD-150-0

