

Wavelength	Type	Technology	Case
UV-B	clear UV-glass + filters	SiC	TO-39

	<p>Description</p> <p>Selective photodiode with high spectral sensitivity in the UVB range (290 nm - 330 nm), mounted in hermetically sealed TO-39 package with clear UV-glass window and filters</p> <p>Note: housing with diffuse glass window available on request</p> <p>Applications</p> <p>Environmental technology, analytical techniques, medical applications, industrial sensors, inspecting and controlling of UV radiation as well as for more general purposes</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	0.056	mm ²
Temperature coefficient of I_{Ph}		$T_C(I_{Ph})$	0.1	%/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	70	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⁾	$I_R = 100 \mu\text{A}$	V_R		20		V
Dark current	$V_R = 1 \text{ V}$	I_D		10	100	fA
Peak sensitivity wavelength	$V_R = 0 \text{ V}$	λ_p		310		nm
Responsivity at λ_p	$V_R = 0 \text{ V}$	S_{λ}		0.013		A/W
Sensitivity range at 1%	$V_R = 0 \text{ V}$	$\lambda_{min}, \lambda_{max}$	290		330	nm
Spectral bandwidth at 50%	$V_R = 0 \text{ V}$	$\Delta\lambda_{0.5}$		26		nm
Shunt resistance	$V_R = 10 \text{ mV}$	R_{SH}		1		$\text{T}\Omega$
Noise equivalent power	$\lambda = 310 \text{ nm}$	NEP		1.1×10^{-14}		$\text{W}/\sqrt{\text{Hz}}$
Specific detectivity	$\lambda = 310 \text{ nm}$	D^*		2.2×10^{12}		$\text{cm} \cdot \sqrt{\text{Hz}} \cdot \text{W}^{-1}$
Junction capacitance	$V_R = 0 \text{ V}$	C_J		20		pF
Photo current at $\lambda = 320 \text{ nm}$ ^{1,2)}	$V_R = 0 \text{ V}$ $E_e = 100 \mu\text{W}/\text{cm}^2$	I_{Ph}		0.6		nA

¹⁾for information only

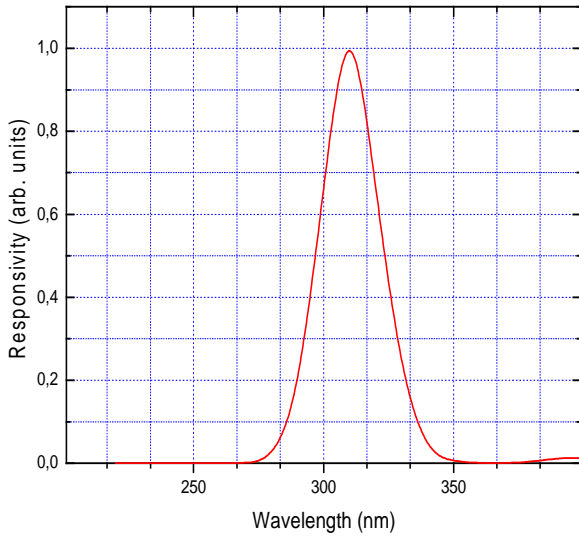
²⁾measured with Phillips UV-lamp TL 4W/12

Note: All measurements carried out with *EPIGAP* equipment

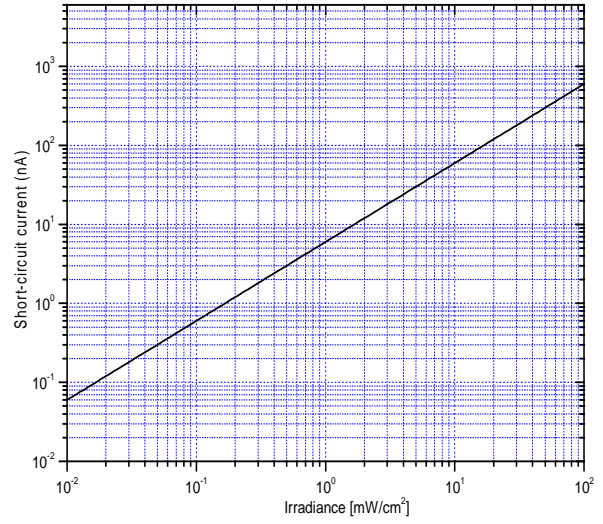
Labeling

Type	Lot N°	R_D (typ.) [$\text{T}\Omega$]	Quantity
EPD-310-0-0.3-1			

Typical responsivity to incident radiation normalized to S @ $\lambda = 310$ nm



Short-circuit current vs. irradiance (typical) ²⁾



Short-circuit current vs. ambient temperature

