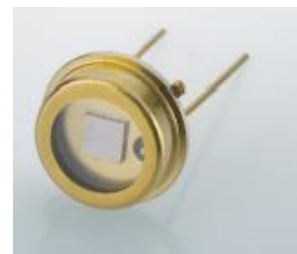




## EPD-365-0-2.5-3

- GaP photodiode
- 4.8 mm<sup>2</sup> active area
- 245 – 400 nm spectral range
- Low Dark Current
- High Spectral Sensitivity



### Description

EPD-365-0-2.5-3 is a Schottky GaP photodiode with a large active area diameter of 4.8 mm<sup>2</sup>, offering low dark current and excellent spectral sensitivity range from 245 to 400 nm. EPD-365-0-2.5-3 comes in a **hermetically sealed** TO-39 Package with UG-11 filter and UV resistant glass window. It is widely used for medical engineering, measurements of UV-lamps, and for water purification facilities.

### Miscellaneous Parameters (T<sub>CASE</sub> = 25°C)

Parameter	Symbol	Value	Unit
Active Area	A	4.8	mm <sup>2</sup>
Temperature Coefficient of I <sub>b</sub>	T <sub>C</sub> (I <sub>b</sub> )	7.0	%/K
Acceptance Angle @ 50% S <sub>λ</sub>	2φ	60	deg.
Operating Temperature	T <sub>OPR</sub>	- 40    + 125	°C
Storage Temperature	T <sub>STG</sub>	- 40    + 125	°C
Soldering Temperature (max. 5s)	T <sub>SOL</sub>	max. 260	°C

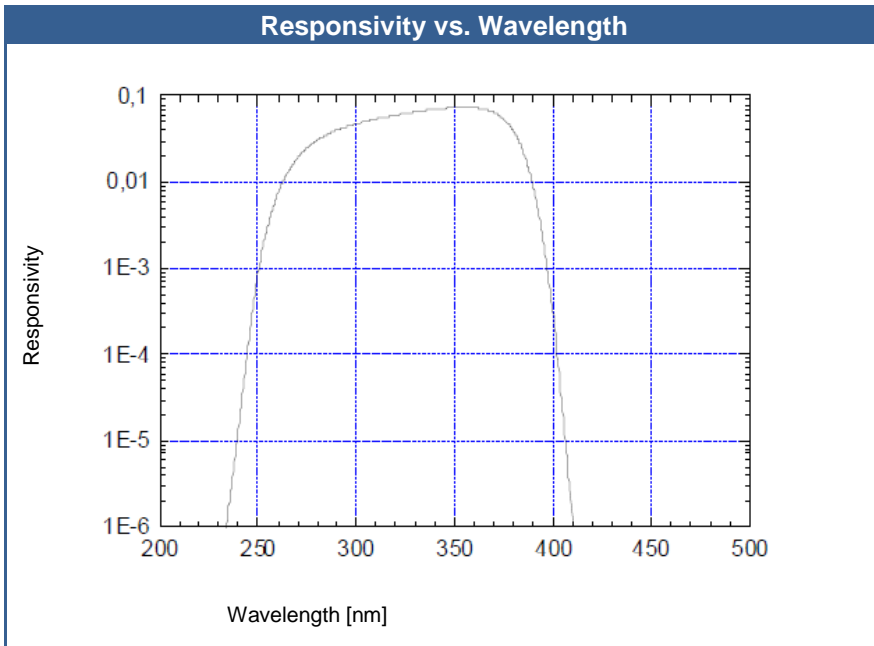


### Electro-Optical Characteristics (T<sub>CASE</sub> = 25°C)

Parameter	Symbol	Condition				Unit
			min.	typ.	max.	
Spectral Range	λ	V <sub>R</sub> =0V	245		400	nm
Peak Sensitivity	λ <sub>P</sub>	V <sub>R</sub> =0V		365		nm
Peak Responsivity	S <sub>λ</sub>	V <sub>R</sub> =0V, λ <sub>P</sub> =365 nm	0.05	0.07		A/W
Spectral Bandwidth @ 50%	Δλ <sub>0.5</sub>	V <sub>R</sub> =0V		85		nm
Specific Detectivity	D	λ=365 nm		6.9x10 <sup>12</sup>		$\frac{\text{cm}\cdot\sqrt{\text{Hz}}}{\text{W}}$
Dark Current	I <sub>b</sub>	V <sub>R</sub> =5 V		15	40	pA
Breakdown Voltage	V <sub>B</sub>	I <sub>R</sub> =10 μA	5			V
Shunt Resistance	S <sub>SH</sub>	V <sub>R</sub> =10 mV	80	100		GΩ
Noise Equivalent Power	NEP	λ=365 nm		3.2x10 <sup>-14</sup>		$\frac{\text{W}}{\sqrt{\text{Hz}}}$
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0 V		1		nF
Switching Time	t <sub>r</sub> / t <sub>f</sub>	V <sub>R</sub> =5 V, R <sub>L</sub> =50 Ω		1 / 60		ns
Photo Current	I <sub>P</sub>	V <sub>R</sub> =0V, λ=365 nm, E <sub>e</sub> =1 mW/cm <sup>2</sup>		1.3		μA

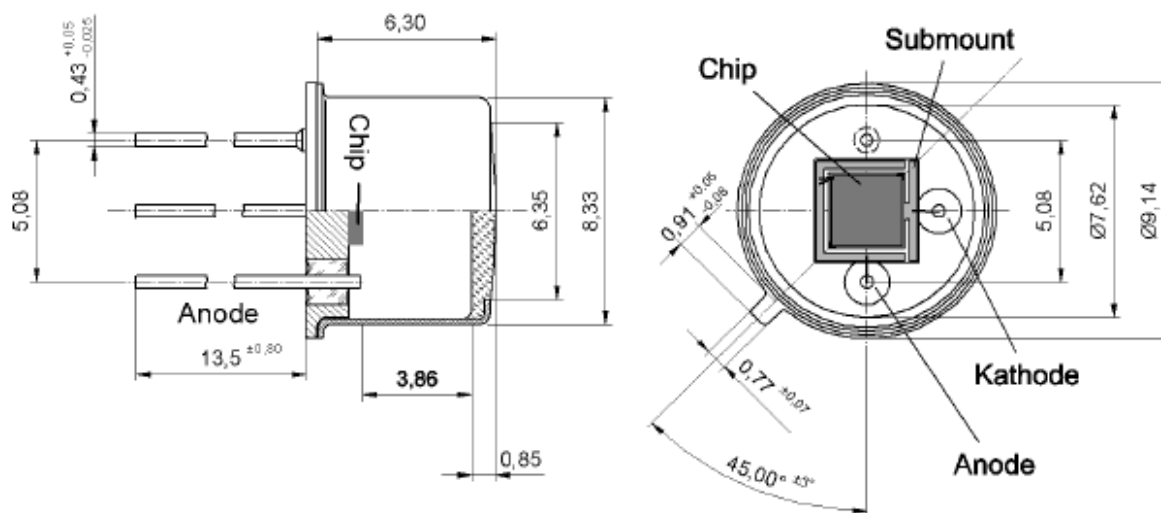


## Performance Characteristics ( $T_{CASE} = 25^{\circ}C$ )



## Outline Dimensions

TO-39



Anode and Cathode isolated from Case

All dimensions in mm