ROITHNER LASERTECHNIK GmbH
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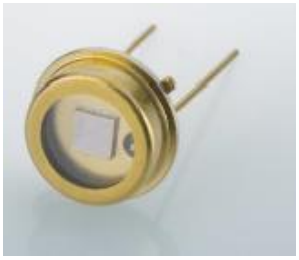
EPD-365-0/2.5-3



- **GaP photodiode**
- **4.8 mm² active area**
- **245 – 400 nm spectral range**
- **Low Dark Current**
- **High Spectral Sensitivity**

RoHS COMPLIANT Pb Pb-Free

Description

EPD-365-0-2.5-3 is a Schottky **GaP** photodiode with a large active area diameter of **4.8 mm²**, 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_{CASE} = 25°C)

Parameter	Symbol	Value		Unit
Active Area	A	4.8		mm²
Temperature Coefficient of I_D	$T_C(I_D)$	7.0		%/K
Acceptance Angle @ 50% S_λ	2φ	60		deg.
Operating Temperature	T_{OPR}	- 40	+ 125	°C
Storage Temperature	T_{STG}	- 40	+ 125	°C
Soldering Temperature (max. 5s)	T_{SOL}	max. 260		°C

Electro-Optical Characteristics (T_{CASE} = 25°C)

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Spectral Range	λ	V_R= 0V	245		400	nm
Peak Sensitivity	λ_P	V_R= 0V		365		nm
Peak Responsivity	S_λ	V_R= 0V , λ_P=365 nm	0.05	0.07		A/W
Spectral Bandwidth @ 50%	$\Delta\lambda_{0.5}$	V_R= 0V		85		nm
Specific Detectivity	D	λ=365 nm		6.9×10^{12}		$\frac{cm \cdot \sqrt{Hz}}{W}$
Dark Current	I_D	V_R=5 V		15	40	pA
Breakdown Voltage	V_B	I_R=10 µA	5			V
Shunt Resistance	S_{SH}	V_R=10 mV	80	100		GΩ
Noise Equivalent Power	NEP	λ=365 nm		3.2×10^{-14}		$\frac{W}{\sqrt{Hz}}$
Junction Capacitance	C_J	V_R=0 V		1		nF
Switching Time	t_r / t_f	V_R=5 V, R_L=50 Ω		1 / 60		ns
Photo Current	I_P	V_R=0V ,λ=365 nm, E_e=1 mW/cm²		1.3		µA

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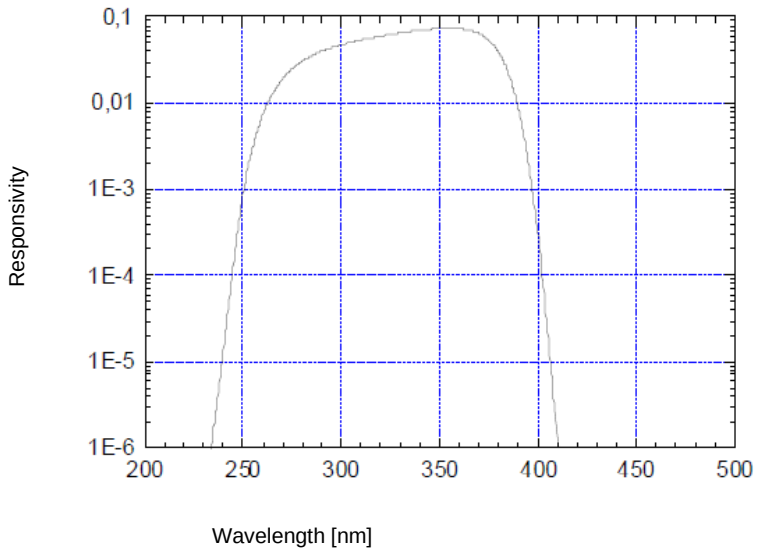
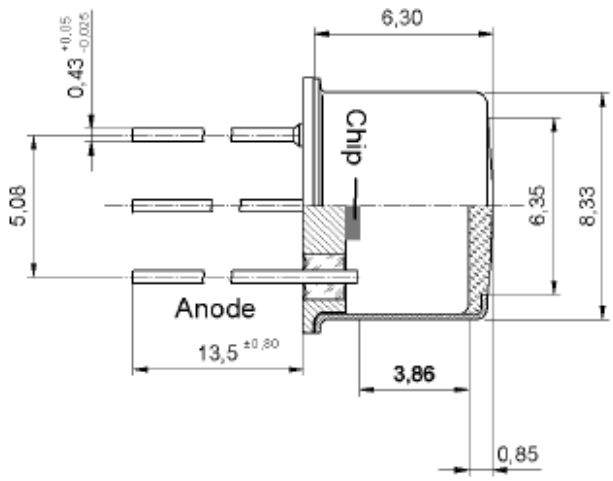
Performance Characteristics (T_{CASE} = 25°C)

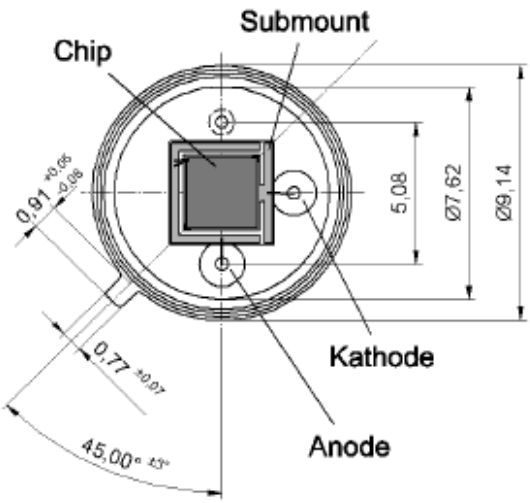
Responsivity vs. Wavelength



Outline Dimensions

TO-39





Anode and Cathode isolated from Case

All dimensions in mm