

# GaP – UV-Photodiodes (190 - 570 nm)

EPD-440-0

## Schottky barrier type

### Description

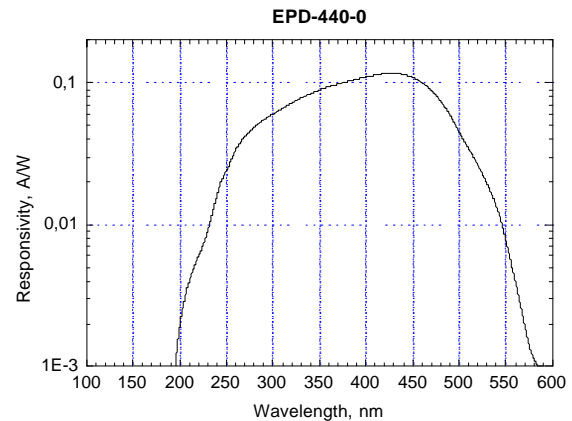
Wide bandwidth and high spectral sensitivity in the UV and visible range (190 nm - 570 nm), low cost chip based on GaP, large active areas are possible

### Applications

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

### Features

Mounted in hermetically sealed TO-packages with UV glass window, different active areas are available



Parameter	Units	Symbol	EPD-440-0/0.9	EPD-440-0/1.4	EPD-440-0/2.5	EPD-440-0/3.6
Chip sizes	mm		0.9 x 0.9	1.4 x 1.4	2.5 x 2.5	3.6 x 3.6
Active area	mm <sup>2</sup>	A	0.7	1.2	4.8	10.9
Max. dark current at $V_R = 0.01V$ $V_R = 1V$	pA	$I_D$	1 10	2 20	4 40	8 80
Package			TO-46	TO-46	TO-39	TO-39
Spectral range at 0,01 maximum	nm	$\lambda_{min}-\lambda_{max}$	190 – 570 (with UV-glass)			
Spectral bandwidth at 50%	nm	$\Delta\lambda_{0,5}$	180			
Peak sensitivity wavelength	nm	$\lambda_p$	440			
Typical responsivity at $\lambda_p$	A/W	$S_{\bar{e}}$	0.12			
Temperature coefficient of $I_D$	times/K	$TCI_D$	1.07			
Typical rise and fall time at $V_R = -5V$ and 50 $\Omega$ load	ns	$t_r$ $t_f$	0.7 13	0.8 30	1 140	1 140
Maximal reverse voltage at $I_R=100 \mu A$	V	$V_R$	10			
Operating temperature range	°C	$T_{amb}$	-40 to +125			
Storage temperature range	°C	$T_{stg}$	-40 to +125			

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