

# SiC - photodiode JEC 0,11



- characteristics :**
- ◆ spectral range 210 ... 380 nm
  - ◆ active area 0,055 mm<sup>2</sup>
  - ◆ high UV - response 0,13 A/W
  - ◆ TO 39-package
  - ◆ photodiode isolated to package
  - ◆ components are in conformity with RoHS and WEEE

- applications :**
- ◆ UV-measurement only
  - ◆ UV-source control (for instance in sterilizers)
  - ◆ flamedetection

## maximum ratings:

maximum reverse voltage	20	V
operating temperature range	- 25 °C ... 70	°C
storage temperature range	-40 °C ... 100	°C
soldering temperature (3s)	260	°C

## technical data :

test conditions, as not otherwise specified:  $\gamma_a = 25\text{ °C}$ ,  $V_R = 0V$

parameters	test conditions	min.	typ.	max.	unit
active area			0,25 x 0,25		mm <sup>2</sup>
spectral range		210		380	nm
maximum of spectral responsivity	$\lambda_{\max} = 275\text{ nm}$		0,13		A/W
absolute spectral responsivity	$\lambda = 254\text{ nm}$		0,11		A/W
dark current $I_R$	$V_R = 1\text{ V}$		1		fA
short current (sunlight)	bright sun cloudy		50 20		$\mu\text{A}$
capacitance			21		pF

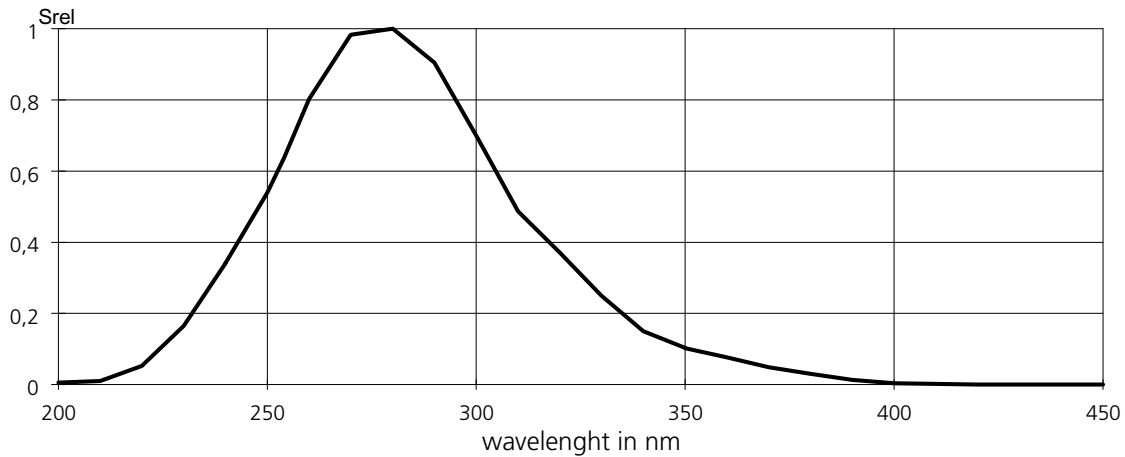


**Electro Optical Components, Inc.**

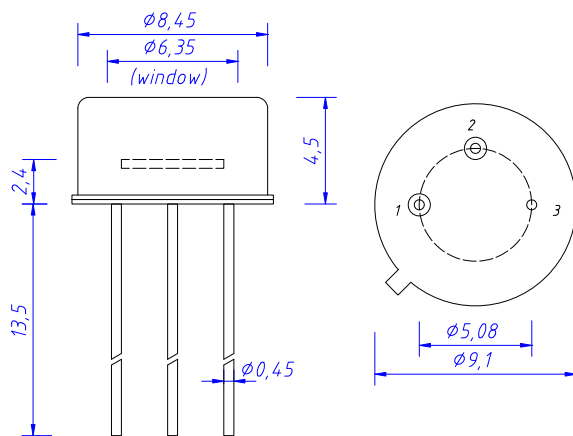
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## relative spectral response



## package dimensions

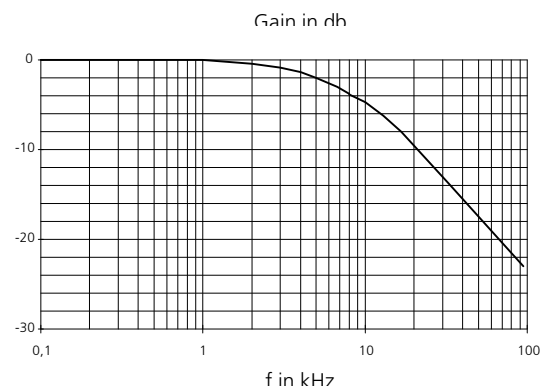
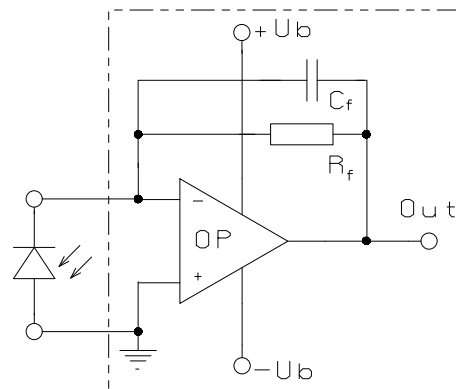


- 1 kathode
- 2 anode
- 3 case

The application example shows a typical circuit.  $R_f$  is responsible for the gain of the circuit.  $C_f$  compensates the reverse junction capacitance of the photodiode and input capacitance of the OPV. The exact value of  $C_f$  depends on  $R_f$ , used OPV and capacitance of the circuit. A typical value is 1 pF.

The diagram shows dependence of amplitude of the application circuit with OPA 111,  $R_f = 50 \text{ M}\Omega$  and  $C_f = 0.5 \text{ nF}$

## application example



For more information:

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