SiC – photodiode

JEC 0,1 IS
JEC 0,1 ISZ

characteristics :

- spectral range 210 ... 380 nm
- active area 0,055 mm^2
- high UV-responsivity 0,13 A/W
- TO 18-package
- photodiode isolated to package
- components are in conformity with RoHS and WEEE

applications :

- UV-measurements only
- UV-source control
- flame detection

maximum ratings :

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: γ_a = 25 °C, V_R = 0V

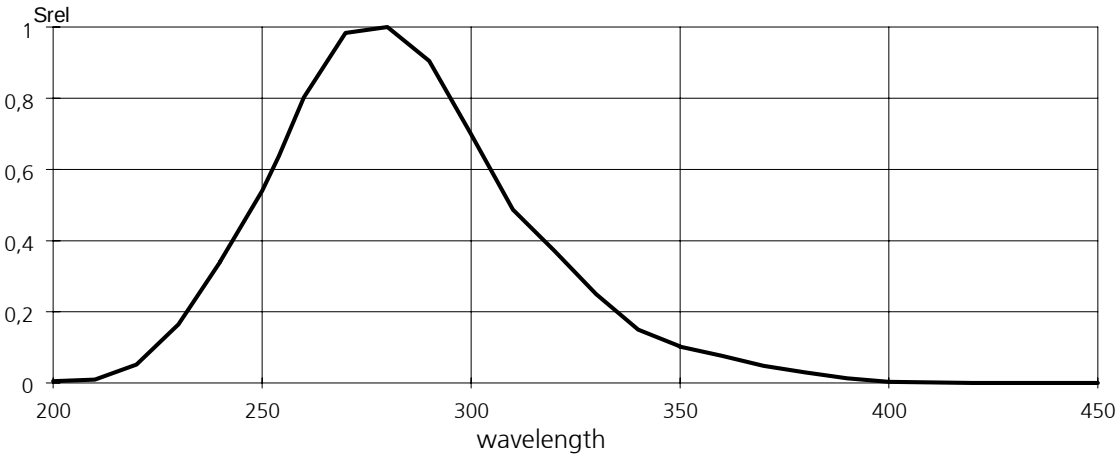
parameters	test conditions	min.	typ.	max.	unit
active area			0,25 x 0,25		mm^2
spectral range		210		380	nm
maximum of spectral responsivity	λ_{max} = 275 nm		0,13		A/W
absolute spectral responsivity	λ = 254 nm		0,11		A/W
dark current I_R	V_R = 1 V		1		fA
short current (sunlight)	bright sun cloudy		50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

DATA SHEET

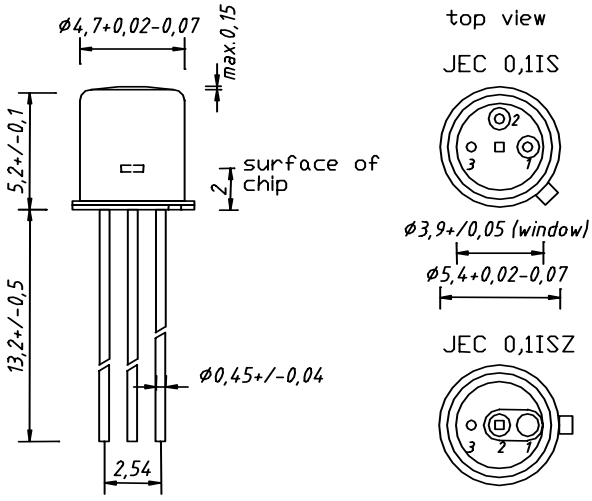
rev. 3 (03/2009)

JEC 0,1 IS; JEC 0,1 ISZ

relative spectral responsivity

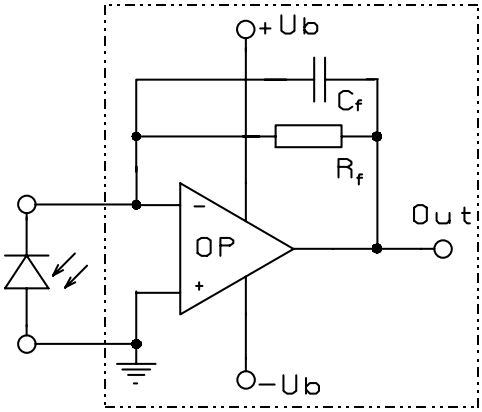


package dimensions



1 cathode
2 anode
3 case

application example



The application example shows a typical circut.. 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 MΩ and C_f = 0.5 pF.