



# SiC – Photodiode

# JEC 1/0,1 I-DE



## preliminary datasheet

- characteristics :**
- ◆ special SiC-detector with two separated channels for optimal adoption of responsivity to erythema characteristic CIE-IEC
  - ◆ integrated special filters for both channels
  - ◆ best suited for measurement of different sources of radiation, because of broadband adoption of responsivity
  - ◆ hermetically sealed TO5-package
  - ◆ integrated diffusor, cos-response
  - ◆ assembly isolated to package
  - ◆ components are in conformity with RoHS and WEEE

- applications :**
- ◆ measurement of erythema effective part of sunlight (UVI-measurement with high exactness)
  - ◆ dosimeter for solarium
  - ◆ medical diagnosis

### absolut maximum ratings:

- ◆ max. reverse voltage 20 V
- ◆ operating temperature range -25 °C...+70 °C
- ◆ storage temperature range -40 °C...+100 °C
- ◆ welding temperature (3s) 260 °C

### technical data :

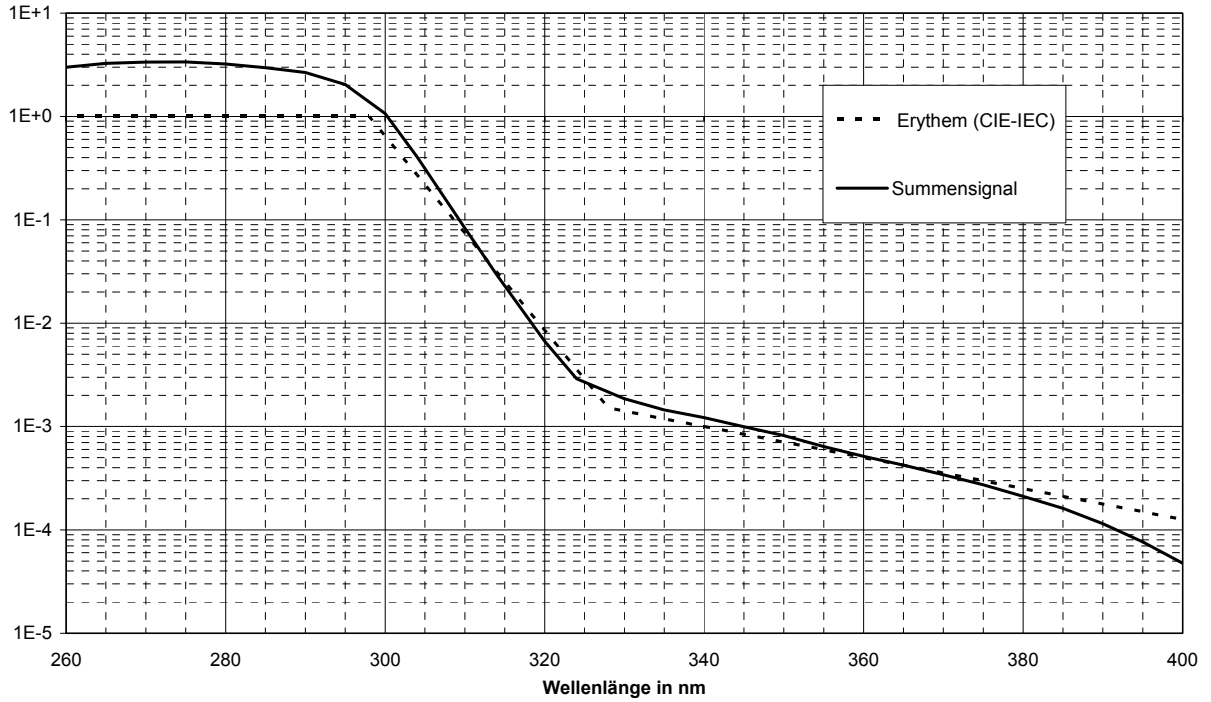
common test conditions, as not otherwise specified:  $T_A = 25 \text{ °C}$ ,  $V_R = 0 \text{ V}$

parameter	test condition	channel I	channel II	unit
active area of detector		0,965	0,054	mm <sup>2</sup>
effective area of diffusor		13,85 (Ø 4,2)		mm <sup>2</sup>
max. spectr. responsivity *)	$S = S_{max}$	1,5	0,03	mA/W
abs. spectr. responsivity *)	$\lambda = 313 \text{ nm}$	0,02		mA/W
abs. spectr. responsivity *)	$\lambda = 365 \text{ nm}$		0,01	mA/W
photocurrent at sunlight		0,2	1	nA/UVI
darkcurrent	$V_R = 1 \text{ V}$	10	10	fA
junction capacity		195	21	pF

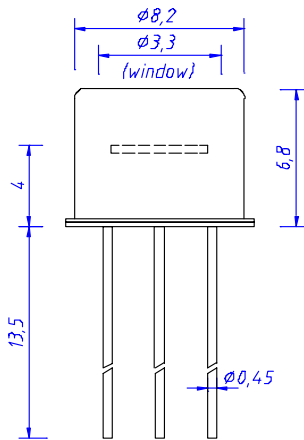
\*) based on effective area of diffusor

D  
A  
T  
A  
  
S  
H  
E  
E  
T

## relative spectral responsivity

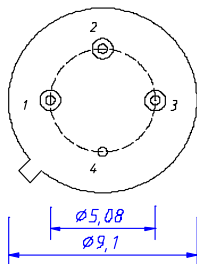


## package dimension



## application example

place for application circuit  
and application hints



pin configuration:

- 1 - cathode/canal I
- 2 - cathode/canal II
- 3 - common anode
- 4 - package