



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: $T_A = 25\text{ °C}$, $V_R = 0\text{ V}$

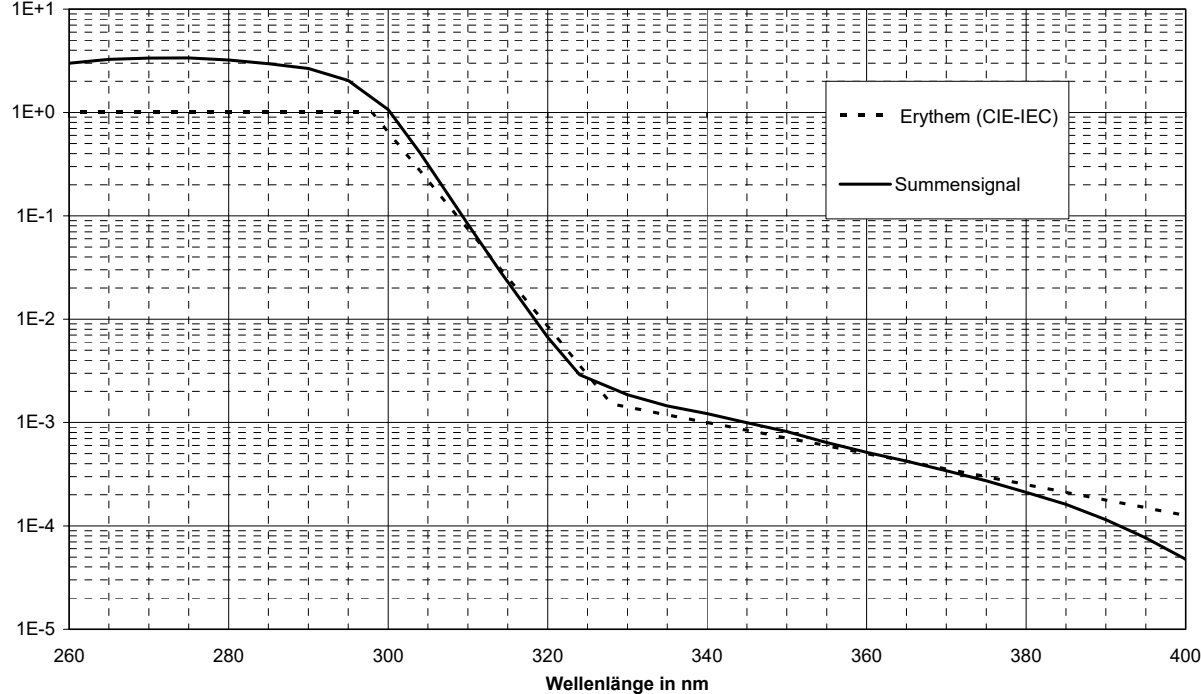
parameter	test condition	channel I	channel II	unit
active area of detector		0,965	0,054	mm ²
effective area of diffusor		13,85 (Ø 4,2)		mm ²
max. spectr. responsivity *)	$S = S_{max}$	1,5	0,03	mA/W
abs. spectr. responsivity *)	$\lambda = 313\text{ nm}$	0,02		mA/W
abs. spectr. responsivity *)	$\lambda = 365\text{ nm}$		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

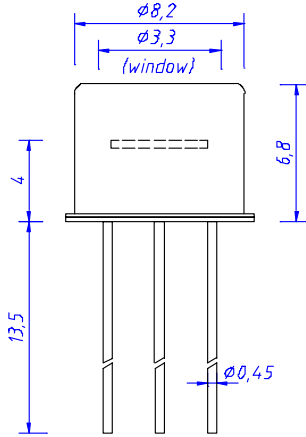
D
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A

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relative spectral responsivity

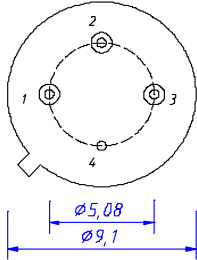


package dimension



application example

place for application circuit
and application hints



pin configuration:

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