

ERYCS[®]**SiC - Photodiode****JEC 1/0.1I-DE****preliminary datasheet**

- characteristics :
- ◆ special SiC-detector with two separate channels for optimal match of responsivity to erythema characteristic CIE-IEC 87
 - ◆ integrated special filters for both channels
 - ◆ best suited for measurement of arbitrary sources of radiation, because of broadband match of responsivity
 - ◆ hermetically sealed TO5-package
 - ◆ integrated diffusor, cosine-response
 - ◆ assembly isolated from package

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

absolute maximum ratings:

- ◆ max. reverse voltage 20 V
- ◆ operating temperature range -55 °C...+70 °C
- ◆ storage temperature range -55 °C...+100 °C
- ◆ welding/soldering temperature (3s) 260 °C

technical data :

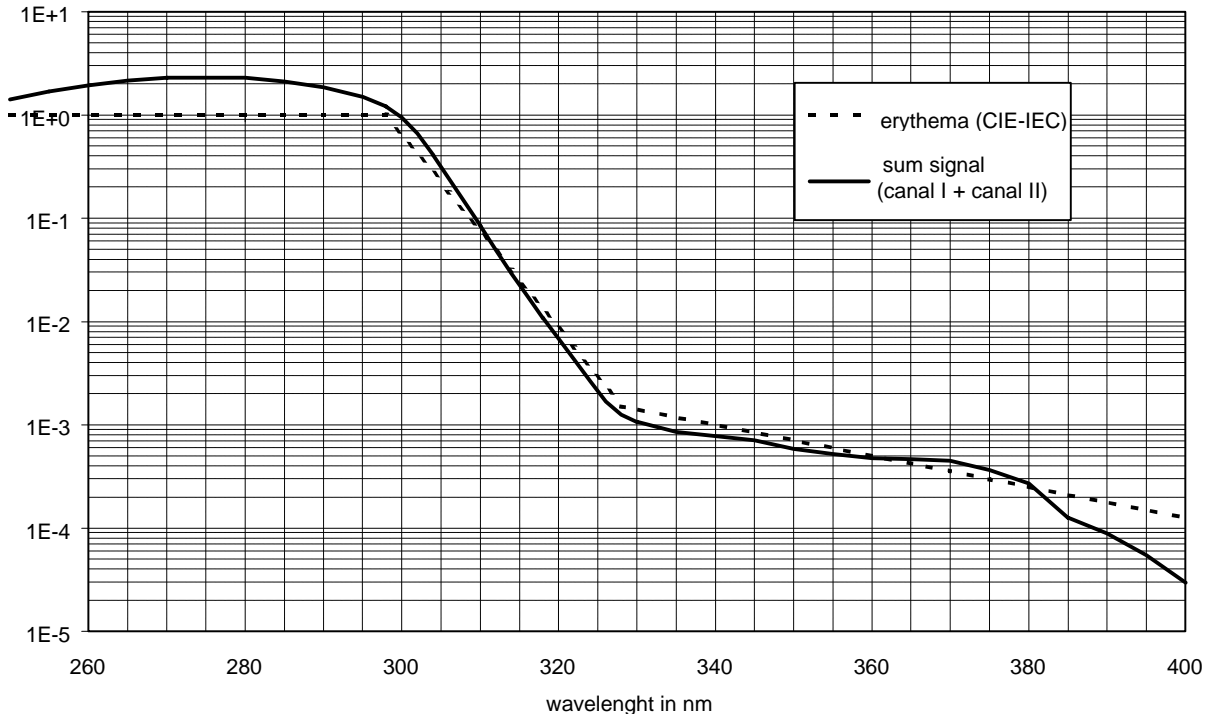
common test conditions, if not otherwise specified at: $T_A = 25\text{ °C}$, $V_R = 0\text{ V}$

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	0.02	mA/W
abs. spectr. responsivity *)	$\lambda = 313\text{ nm}$	0.025		mA/W
abs. spectr. responsivity *)	$\lambda = 365\text{ nm}$		0.01	mA/W
photocurrent in sunlight		0.2	1	nA/UVI
Dark current	$V_R = 1\text{ V}$	10	10	fA
junction capacity		195	21	pF

*) based on effective area of diffusor

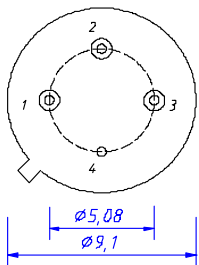
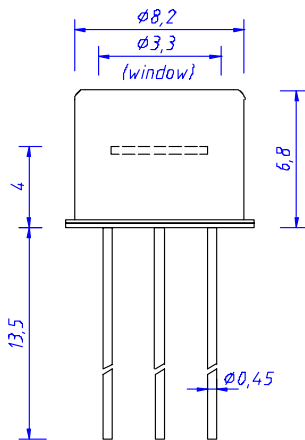
rev. 06/2003

relative spectral responsivity



package dimension

application example



pin configuration:

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