Special UV-Index Sensor

EryF

Features of the EryF special UV-Index Sensor

The UVI Sensor EryF is based on our approved broad band UV-Sensor TW30SX and uses a Filter leading to excellent accordance with the erythema action curve of the human skin. The EryF is designed for use as a erythema sensor according to ISO 17166 CIE S 007/E (2000) – DIN 5050. It is optimally suited to feature high quality instruments for exact measurements of the UV Index. Overview on the advantages:

- **UVI precision is possible up to ± ½ UVI**
- **the Sensor's current is directly proportional to the UV-Index**
- **also suited for sun tanning bank dosimetry**
- Based on approved TW30SX technology
- Schottky-type photodiode
- Intrinsic visible blindness due to wide-bandgap semiconductor material
- large photoactive area
- designed to operate in photovoltaic mode
- hermetically sealed metal TO18 housing and UV-glass window
- we are able to manufacture up to 2.000.000 pcs. per year.

Maximum Ratings

Parameter	Symbol	Value	Unit
Operating temperature range	T_{opt}	-20 ... +80	°C
Reverse voltage	V_{Rmax}	3	V
Forward current	I_{Fmax}	1	mA
Total power dissipation at 25°C	P_{tot}	1	mW

General Characteristics

(T_a = 25 °C)

Parameter	Symbol	Value	Unit
Active area	A	4,18	mm^2
Active area dimensions	L x W	2.2 x 1.9	mm^2
Max. viewing angle	α	70	degree
Shunt resistance (dark)	R_s	300	MΩ
Dark current at 10mV reverse bias	I_d	30	pA
Open circuit voltage (200µW/cm^2, λ=300nm)	V_0	>250	mV
min. Short circuit current (200µW/cm^2, λ=300nm)	I_0	160	nA
Breakdown voltage (dark)	V_{BR}	> 3	V

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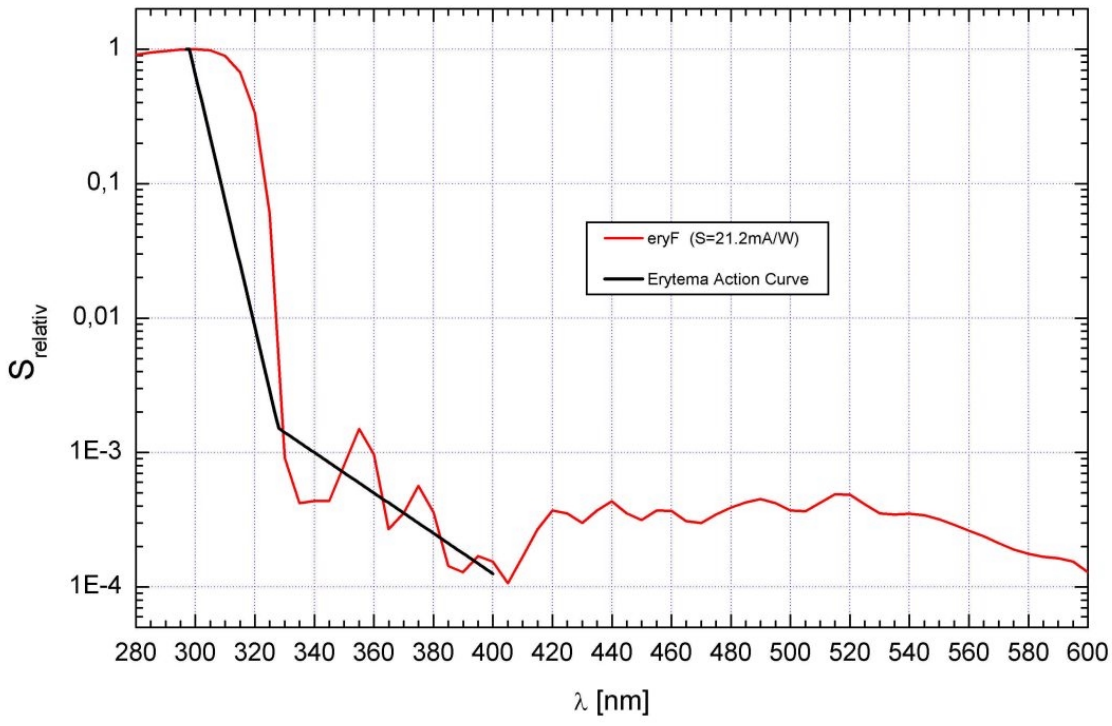
Spectral Characteristics

(T_a = 25 °C)

Parameter	Symbol	garanteed Value	Unit
min. spectral sensitivity at peak	S_{max}	19	mA W^{-1}
Wavelength of peak spectral sensitivity	λ_{Smax}	300	nm
Range of spectral sensitivity ($S=0.1*S_{max}$)	-	215 - 325	nm
Visible blindness	$\frac{S_{max}}{S_{400nm}}$	10000	

Spectral Response



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