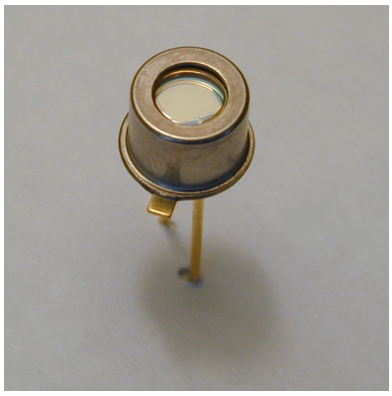
Special UV-Index Sensor

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
- Our price for a single order is EUR 35,-. If you order 35.000 pcs. the price is EUR 3,98. We are able to manufacture up to 2.000.000 pcs. per year.

For price, delivery, and to place orders, please contact sglux in Germany at
sglux GmbH, Ostendstr. 25, 12459 Berlin, Tel. +49 30 5301 5211, Fax +49 30 5301 5209
or visit our website: sglux.de

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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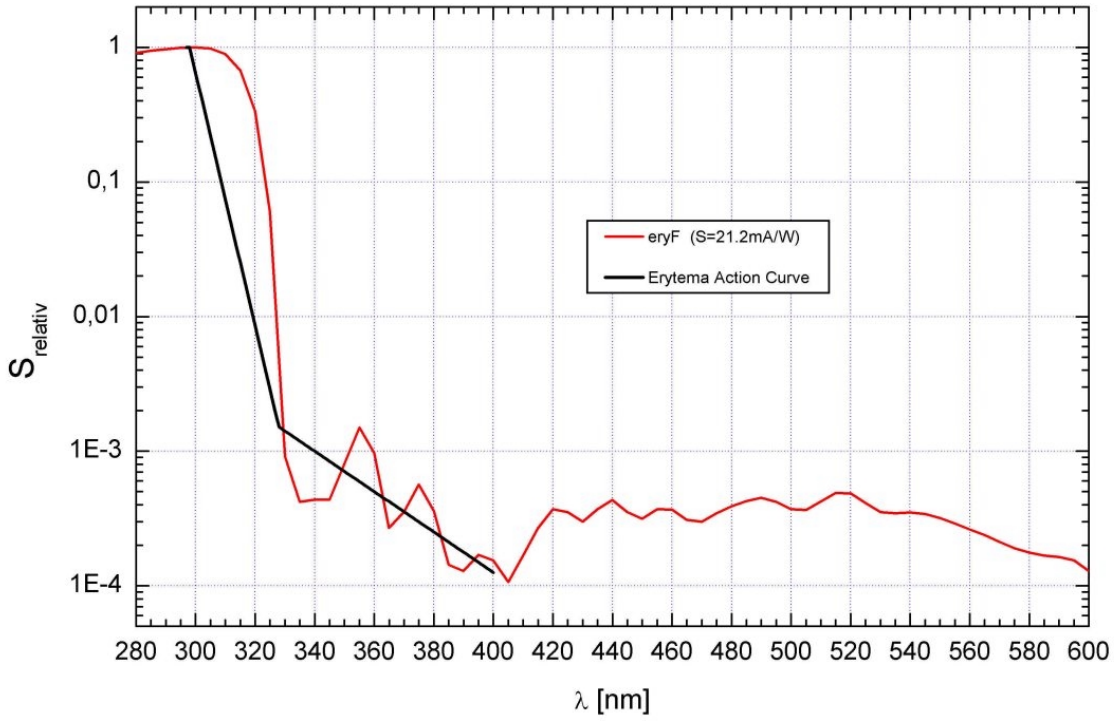
Spectral Characteristics

(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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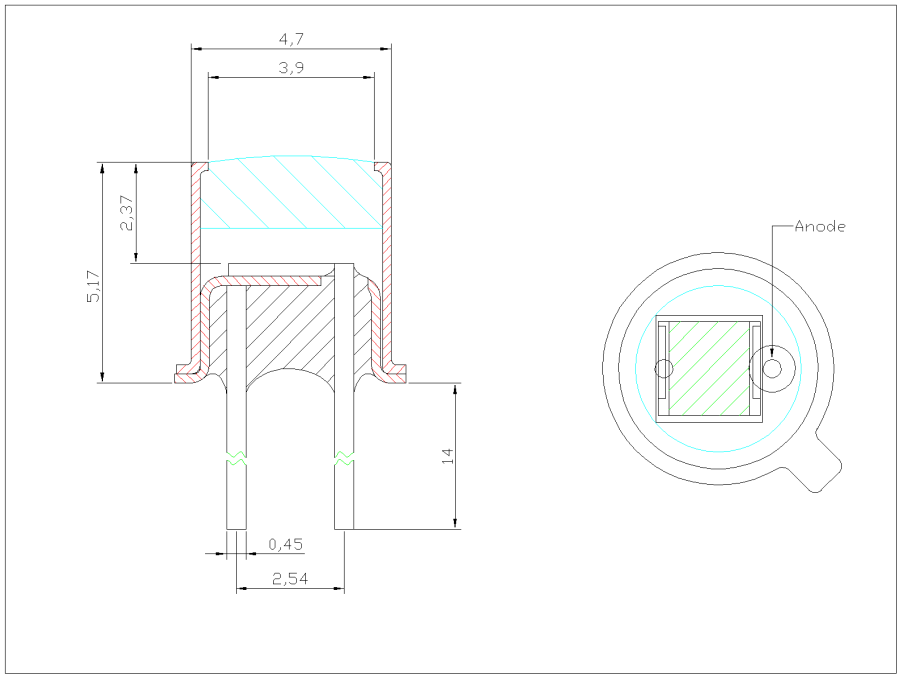
Pin Layout



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