



### **Features**

- Special UV-index sensor, precision up to +/- 0.5 UVI
- Optimally suited for accurate sun-UV dosimetry
- Also suited for sun tanning bank dosimetry
- Silicon Carbide based chip for radiation hardness
- Intrinsic visible blindness due to wide-bandgap semiconductor material
- TO-18 metal package with integrated filter glass
- 0,054 mm<sup>2</sup> active chip area
- The chip is manufactured by Cree Research Inc., U.S.A.

### **Eigenschaften**

- Spezieller UV-Index Sensor mit einer Genauigkeit bis zu +/- 0.5 UVI
- Optimale Eignung für präzise Messung des Sonnen-UV
- Auch geeignet zur Überwachung von Solarien
- Siliziumkarbid-Chip garantiert hohe Strahlungsfestigkeit
- Inhärente Unempfindlichkeit gegenüber dem sichtbaren Licht durch das Halbleitermaterial mit hoher Bandlücke
- TO-18 Metallgehäuse mit integriertem Filterglas
- 0,054 mm<sup>2</sup> aktive Chipfläche
- Chiphersteller: Cree Research Inc., U.S.A.

# UV-index sensor based on SiC



**EryF\***

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## EryF\*

### Maximum Ratings

Parameter	Symbol	Value	Unit
Operating temperature range	$T_{opt}$	-25 ... +70	°C
Reverse voltage	$V_{Rmax}$	20	V

### General Characteristics

( $T_a = 25\text{ °C}$ )

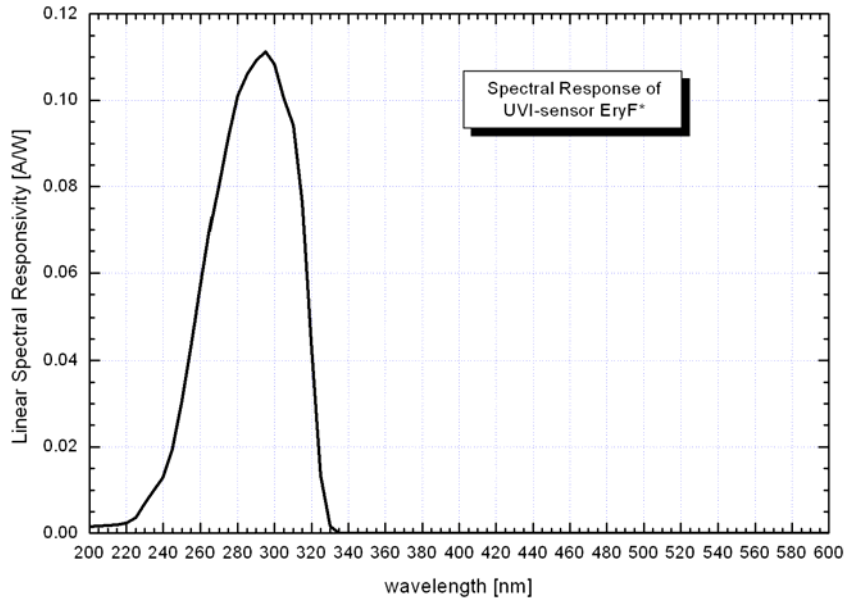
Parameter	Symbol	Value	Unit
Active area	A	0.054	mm <sup>2</sup>
Dark current at 1 V reverse bias	$I_d$	1	fA
Capacitance	C	21	pF
Short circuit current at bright sun	$I_0$	ca. 7	nA

### Spectral Characteristics

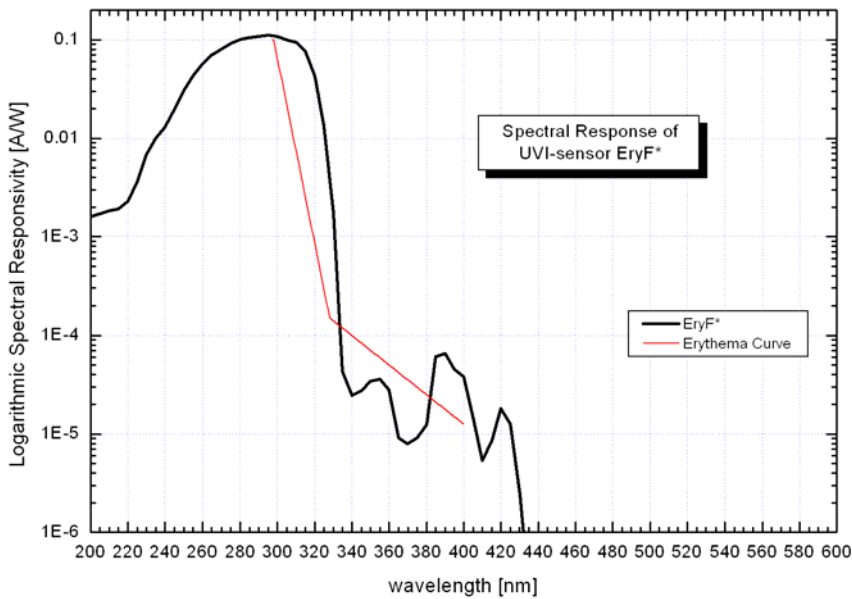
( $T_a = 25\text{ °C}$ )

Parameter	Symbol	Value	Unit
Max. spectral sensitivity	$S_{max}$	0.11	A W <sup>-1</sup>
Wavelength of max. spectral sensitivity	$\lambda_{Smax}$	295	nm
Range of spectral sensitivity ( $S=0.1 \cdot S_{max}$ )	-	235 - 325	nm

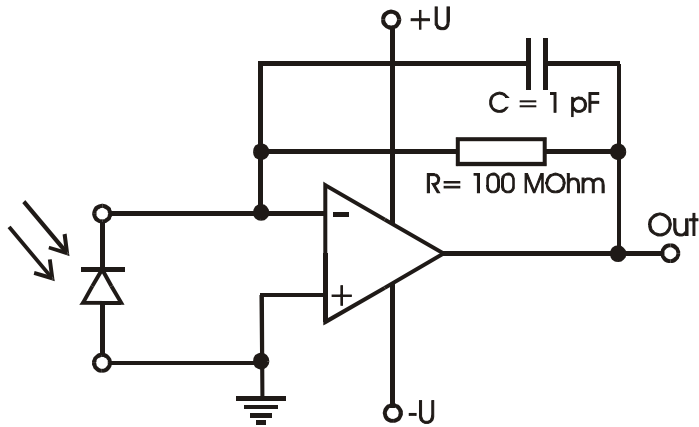
### Linear Spectral Response



### Logarithmic Spectral Response



### Application Example



### Pin Layout

Grounded pin: Anode  
Isolated pin: Cathode

