



Features

- Operating Temperature up to 170°C
- Broad Band UVA-UVB-UVC Photodiode
- Optimally suited for UVC high radiation control
- Silicon Carbide based chip for extreme irradiation hardness
- Intrinsic visible blindness due to wide-bandgap semiconductor material
- TO-18 metal package with 0,054 mm² active chip area
- The chip is manufactured by Cree Research Inc., U.S.A.

Eigenschaften

- Einsatztemperatur bis 170°C
- Breitband UVA-UVB-UVC Photodiode
- Optimale Eignung für Messung starker UVC-Strahlung
- Siliziumcarbide-Chip garantiert extreme Strahlungsfestigkeit
- hohe intrinsische Unempfindlichkeit gegenüber dem sichtbaren Licht durch Halbleitermaterial mit hoher Bandlücke
- TO-18 Metallgehäuse mit 0,054 mm² aktiver Chipfläche
- Chiphersteller: Cree Research Inc., U.S.A.

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Maximum Ratings

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

General Characteristics ($T_a = 25\text{ °C}$)

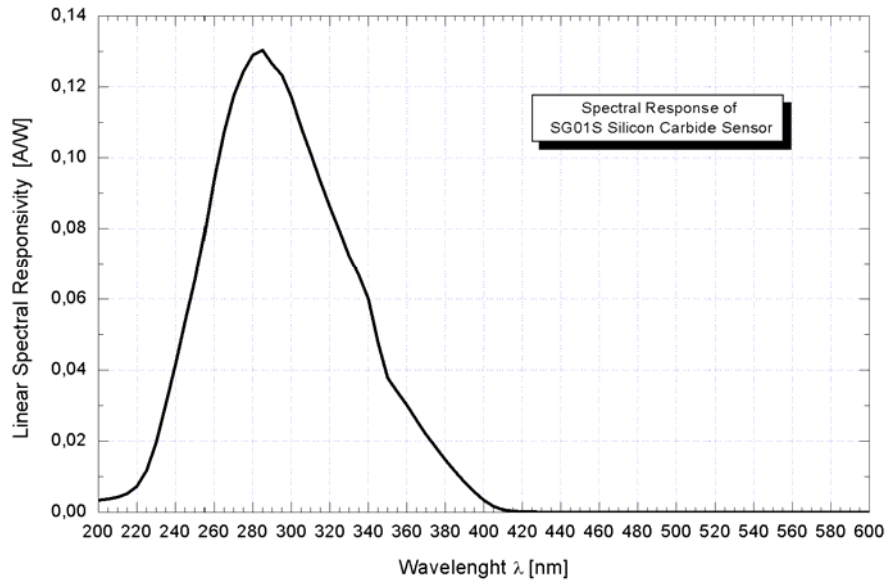
| Parameter | Symbol | Value | Unit |
|--|--------|--------|-----------------|
| Active area | A | 0.054 | mm ² |
| Dark current at 1 V reverse bias | I_d | 1 | fA |
| Capacitance | C | 21 | pF |
| Short circuit current at bright sun | I_0 | ca. 70 | nA |

Spectral Characteristics ($T_a = 25\text{ °C}$)

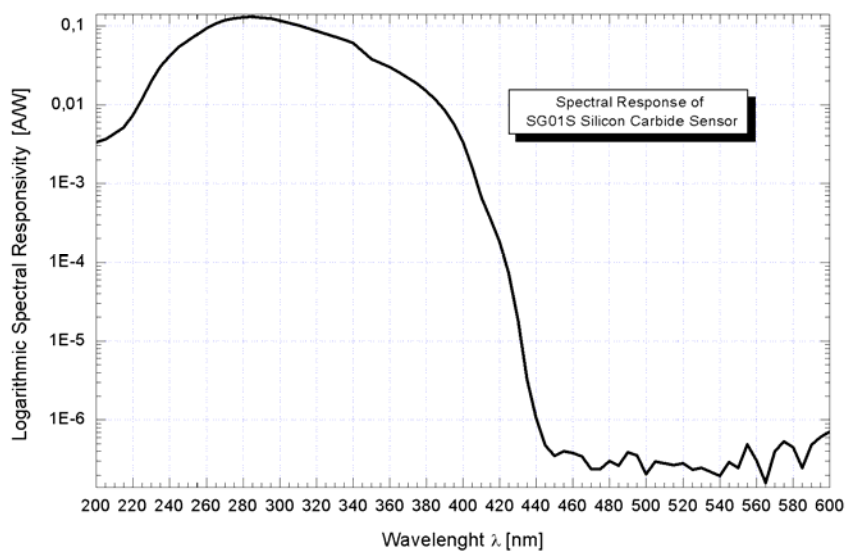
| Parameter | Symbol | Value | Unit |
|--|------------------|-----------|-------------------|
| Max. spectral sensitivity | S_{max} | 0,13 | A W ⁻¹ |
| Wavelength of max. spectral sensitivity | λ_{Smax} | 285 | nm |
| Range of spectral sensitivity ($S=0.1*S_{max}$) | - | 210 - 380 | nm |

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Linear Spectral Response



Logarithmic Spectral Response

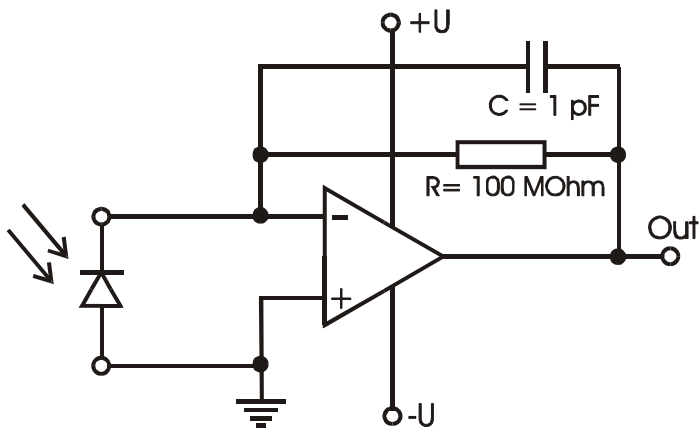


Ultraviolet selective SiC based UV sensor



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Application Example



Pin Layout

Ultraviolet selective SiC based UV sensor



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