



Features

- Broad band UVA-UVB-UVC photodiode in TO18 metal package
- Silicon Carbide based chip for extreme radiation hardness
- Chip dimensions of $0.5 \times 0.5 \text{ mm}^2$ with 0.22 mm^2 active area
- Intrinsic visible blindness due to wide-bandgap semiconductor material
- Completely insensitive to the visible ($S_{280\text{nm}} / S_{400\text{nm}} > 10^4$) without filters
- The chip is manufactured by Cree Research Inc., U.S.A.

Eigenschaften

- Breitband UVA-UVB-UVC Photodiode im TO18 Metallgehäuse
- Siliziumkarbidchip garantiert extreme Strahlungsfestigkeit
- Chipabmessungen von $0.5 \times 0.5 \text{ mm}^2$ mit 0.22 mm^2 aktiver Fläche
- hohe intrinsische Unempfindlichkeit gegenüber dem sichtbaren Licht durch Halbleitermaterial mit hoher Bandlücke
- Vollständig unempfindlich für sichtbares Licht ($S_{280\text{nm}} / S_{400\text{nm}} > 10^4$) ohne Filtereinsatz
- 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 | 0.22 | mm ² |
| Dark current at 1 V reverse bias | I_d | 2 | fA |
| Capacitance | C | 80 | pF |
| Short circuit current at bright sun | I_0 | ca. 180 | nA |

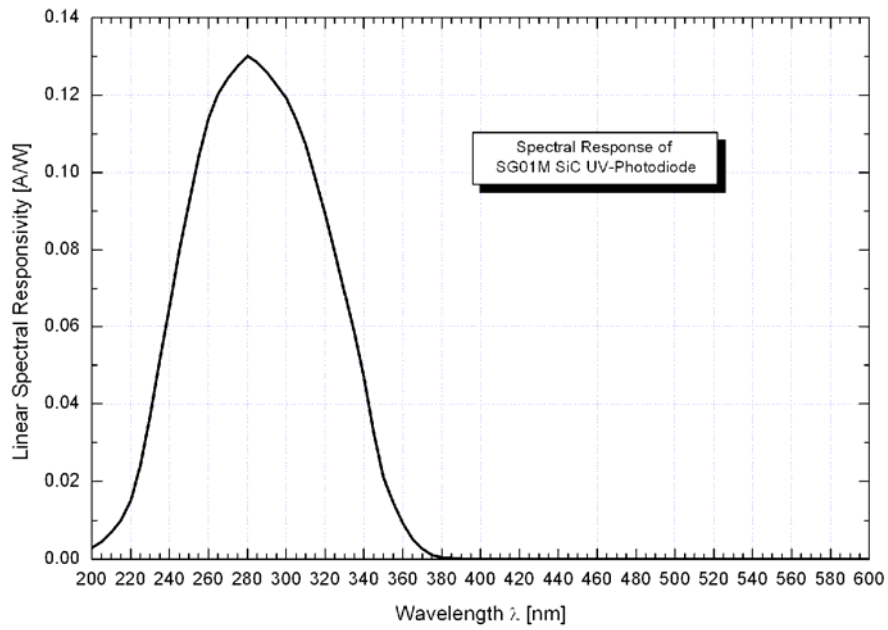
Spectral Characteristics

($T_a = 25\text{ °C}$)

| Parameter | Symbol | Value | Unit |
|--|------------------|-----------|-------------------|
| Max. spectral sensitivity | S_{max} | 0.13 | A W ⁻¹ |
| Wavelength of max. spectral sensitivity | λ_{Smax} | 280 | nm |
| Range of spectral sensitivity ($S=0.1*S_{max}$) | - | 220 - 360 | nm |

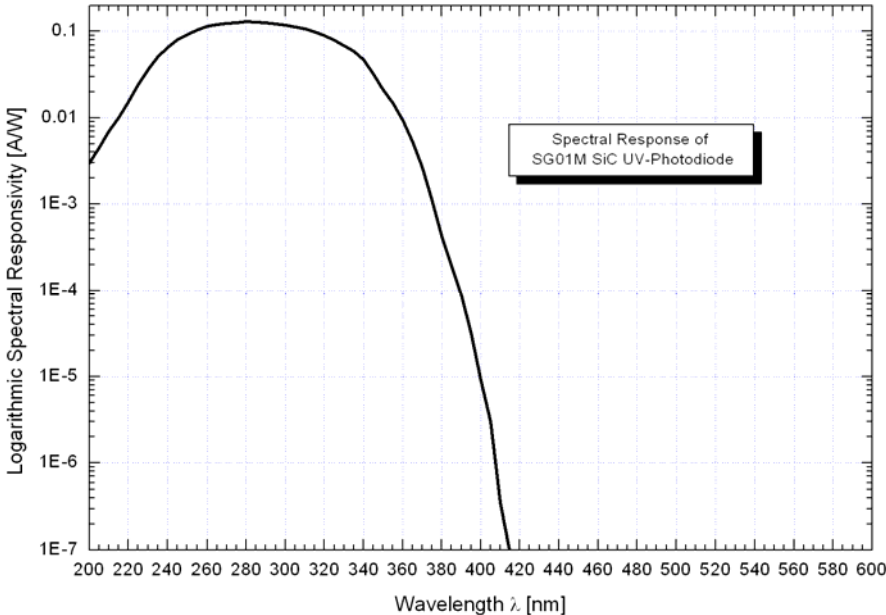
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Linear Spectral Response



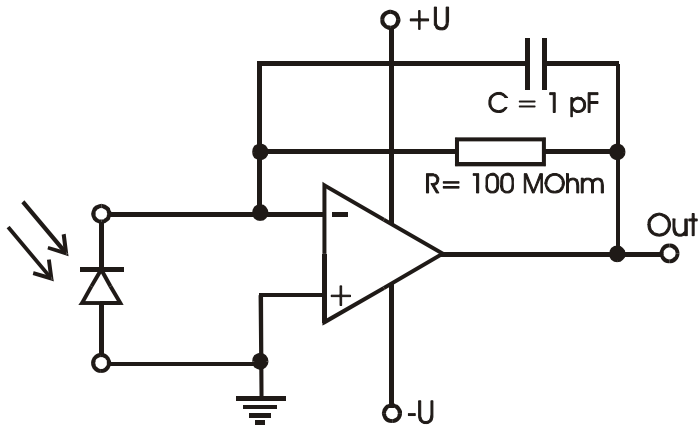
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Logarithmic Spectral Response



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Application Example



Pin Layout

