

SiC UV Photodiode with 0,96mm² active area, two insulated pins

Order Code: SG01L18-ISO



Our SiC photodiodes are featured by extreme radiation hardness, low noise and a high visible blindness.



SG01L18-ISO

Features of the SG01L18-ISO :

- Broadband UVA-UVB-UVC Photodiode in TO18 hermetic metal housing
- Anode and Cathode with insulated pins, one additional ground pin
- Silicon Carbide Chip guarantees extreme radiation hardness
- Chip dimensions 1 × 1 mm² with 0.96 mm² active area
- non sensible for visible light ($S_{280nm} / S_{400nm} > 10^4$), no filters needed
- Chip manufacturer: Cree Research Inc., U.S.A.

SiC Photodiodes from our series SG01... are also available with these features

<i>Photodiode description</i>	<i>Order Code</i>
0,054mm ² SiC-Photodiode, TO18-housing with 2 Pins	SG01S
0,054mm ² SiC-Photodiode, TO39-housing with 2 Pins	SG01S-5
like SG01S aber Temperaturfest bis 170°C	SG01S-HT
like SG01S but with 3 Pins in a row, 2 pins insulated, 1 pin grounded	SG01S-ISO
like SG01S but only sensible in the UVC area	SG01S-C18
like SG01S-5 but only sensible in the UVC area	SG01S-C
special photodiode in TO18 for Erythema measurements, DIN5050	EryF*
0,22 mm ² SiC-Photodiode, TO18-housing with 2 pins	SG01M
0,22 mm ² SiC-Photodiode, TO39, only sensible in the UVC area	SG01M-C
0,22 mm ² SiC-Photodiode, TO39 with concentrating lens giving 4mm ² „virtual“ active area	SG01M-Lens
0,96 mm ² SiC Photodiode, TO39-housing with 2 Pins	SG01L-5
0,96 mm ² SiC Photodiode, TO18-housing with 2 Pins	SG01L-18
wie SG01L-5 but only sensible in the UVC area	SG01L-C
wie SG01S with short cap	SG01SS
wie SG01L-18 with 3 pins in 90°-orientation, 2 insulated, 1 ground	SG01L-18-ISO

Please also consider our product series

- UV-Sensor Probes
- UV-Monitors & Controllers
- UV-Handhelds

SiC UV Photodiode with 0,96mm² active area, two insulated pins

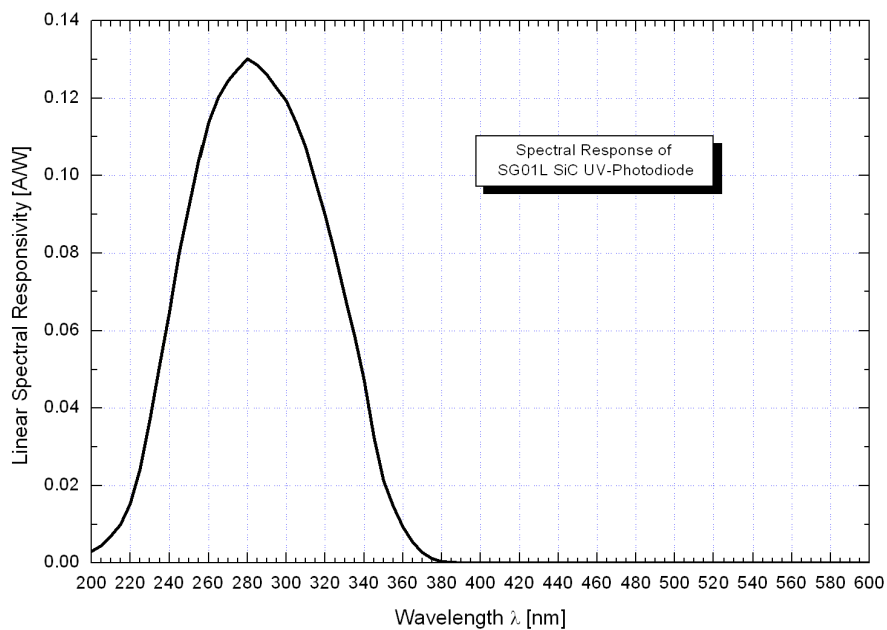
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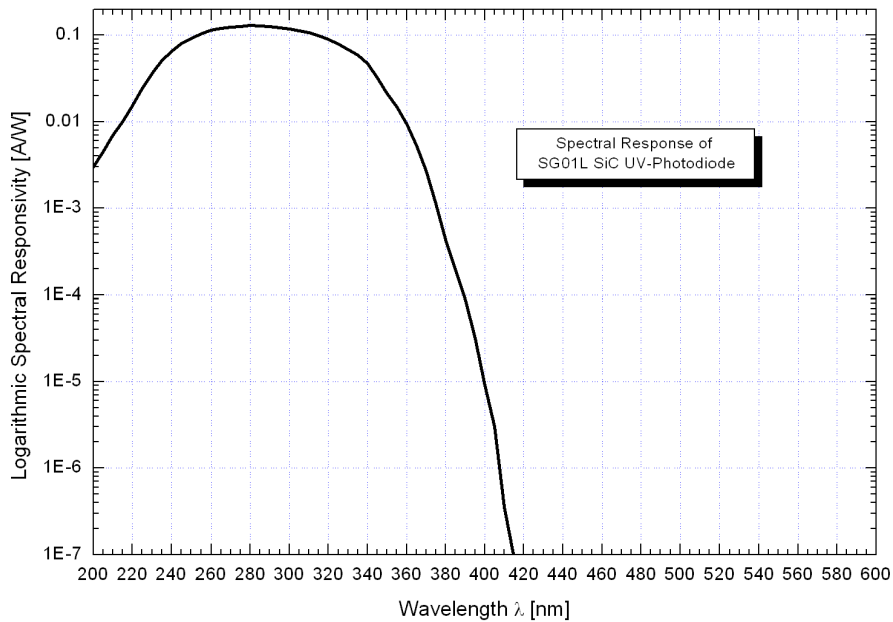
Technical Specification (T_a = 25 °C)

Parameter	Symbol	Wert	Einheit
Operating Temperature	T _{opt}	-25 ... +70	°C
Reverse Voltage	V _{Rmax}	20	V
active area	A	0,96	mm ²
dark current at 1V bias	I _d	5	fA
Capacitance	C	200	pF
current at medium radiation	I ₀	ca. 800	nA
max. of spectral sensitivity	S _{max}	0,13	AW-1
wavelength of max. sensitivity	λ _{Smax}	280	nm
sensitivity range (S=0.1*S _{max})	–	220 - 360	nm

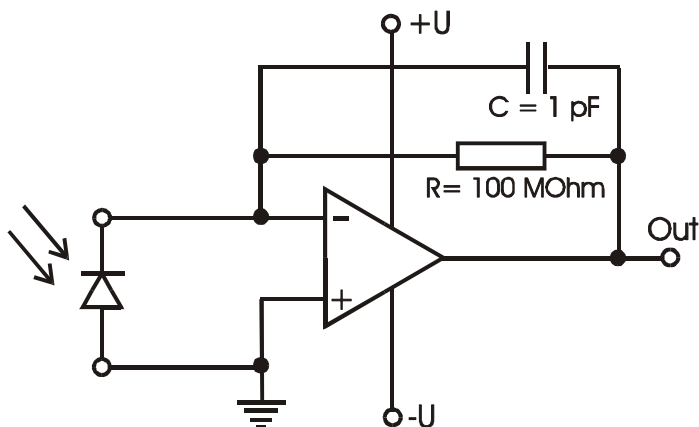
linear spectral response



logarithmic spectral response



Circuit example using OPA336

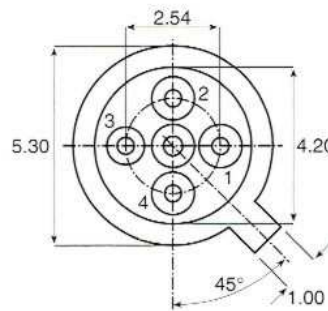
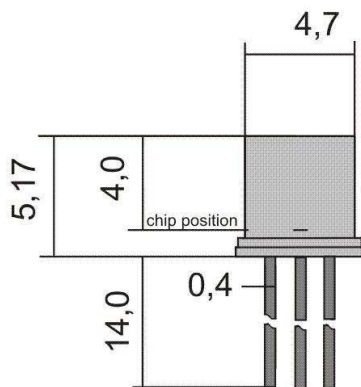


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Dimensions and pin layout



- top view
1 Cathode
2 Anode
3 Ground
4 pin not present