SiC UV Photodiode with 0.96mm^2 active area, two insulated pins

SG01L18-ISO

Our SiC photodiodes feature extreme radiation hardness, low noise and a high visible blindness.

Features:

- 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 mm^2 with 0.96 mm^2 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 SG01XXX are also available with these features

Photodiode description	*Order Code*
0.054mm^2 SiC-Photodiode, TO18-housing with 2 Pins	SG01S
0.54mm^2 SiC-Photodiode, TO39-housing with 2 Pins	SG01S-5
like SG01S aber Temperaturfest bis 170℃	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*
0.2 mm^2 SiC-Photodiode, TO18-housing with 2 pins	SG01M
0.2 mm^2 SiC-Photodiode, TO39, only sensible in the UVC area	SG01M-C
0.2 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
like SG01L-5 but only sensible in the UVC area	SG01L-C
like SG01S with short cap	SG01SS
like SG01L-18 with 3 pins in 90°-orientation, 2 ins ulated, 1 ground	SG01L-18-ISO

Please also consider our product series

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

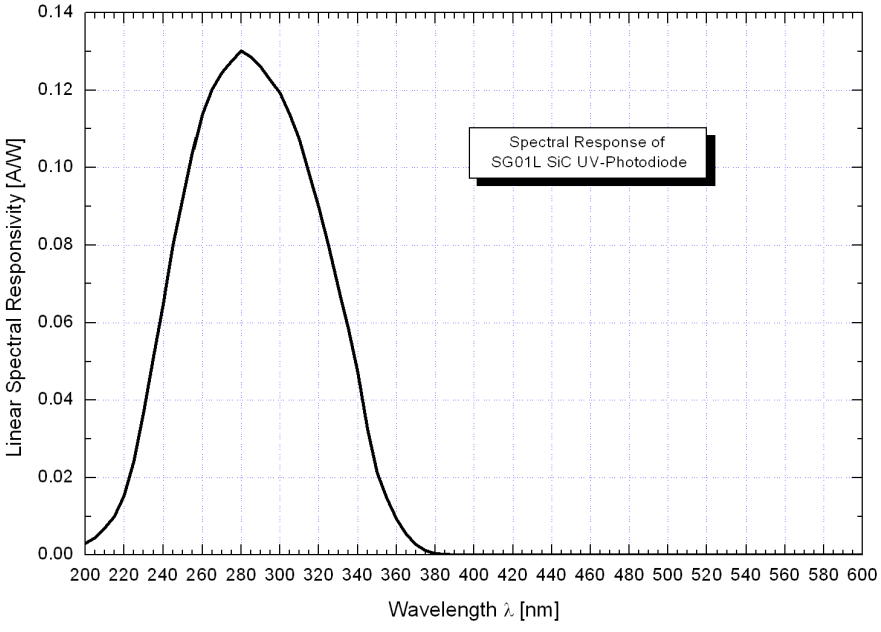
For price, delivery, and to place orders, please contact Scitec in England at
Scitec Instruments Ltd, Bartles Industrial Estate, North Street, Redruth, Cornwall, TR15 HR
Tel. +44 1209 314608, Fax +44 1209 314609
or visit our website: www.scitec.uk.com

SG01L18-ISO

Technical Specification (Ta = 25 ℃)

Parameter	Symbol	Wert	Einheit
Operating Temperature	T_{opt}	-25 ... +70	℃
Reverse Voltage	V_{Rmax}	20	V
Active area	A	0.96	mm2
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



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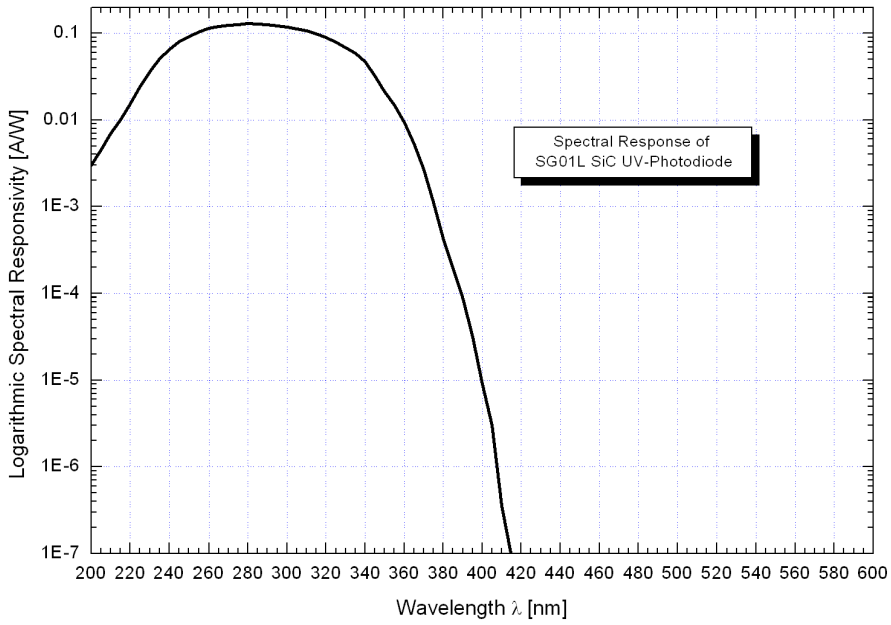
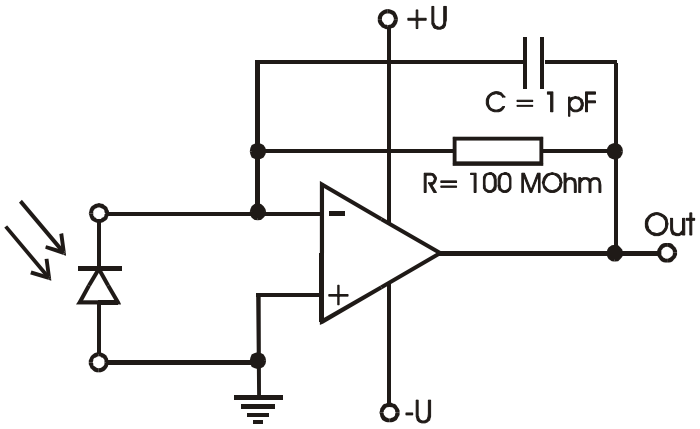
Logarithmic spectral response



Circuit example using OPA336



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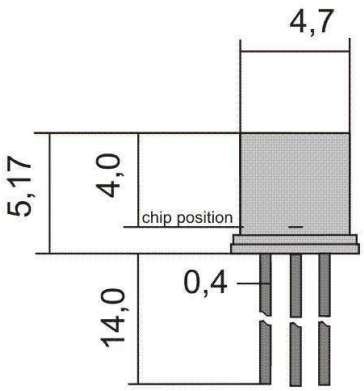
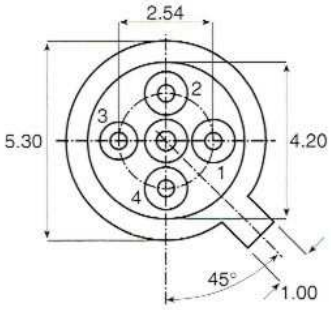
Dimensions and pin layout





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

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