

SG01L-18



Features

- Broad band UVA-UVB-UVC photodiode in TO18 metal package
- Silicon Carbide based chip for extreme radiation hardness
- Chip dimensions of $1 \times 1 \text{ mm}^2$ with 0.96 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.

Maximum Ratings

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



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General Characteristics

(T_a = 25 °C)

Parameter	Symbol	Value	Unit
Active area	A	0.96	mm ²
Dark current at 1 V reverse bias	I _d	5	fA
Capacitance	C	200	pF
Short circuit current at bright sun	I ₀	ca. 800	nA

Spectral Characteristics

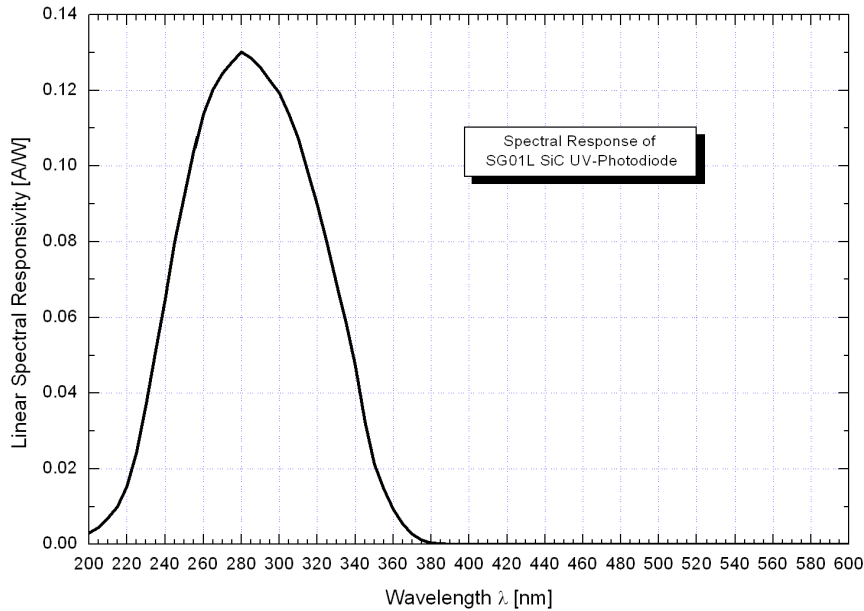
(T_a = 25 °C)

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

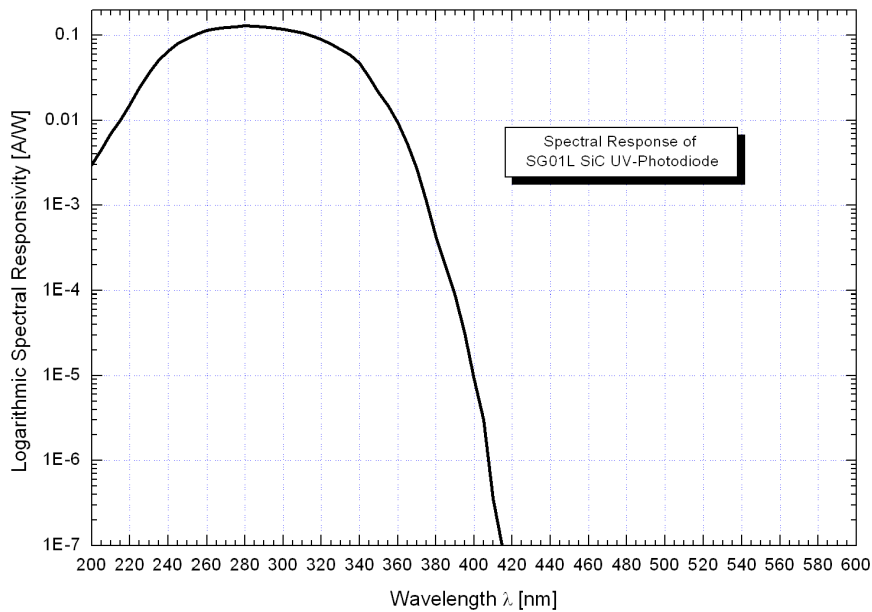


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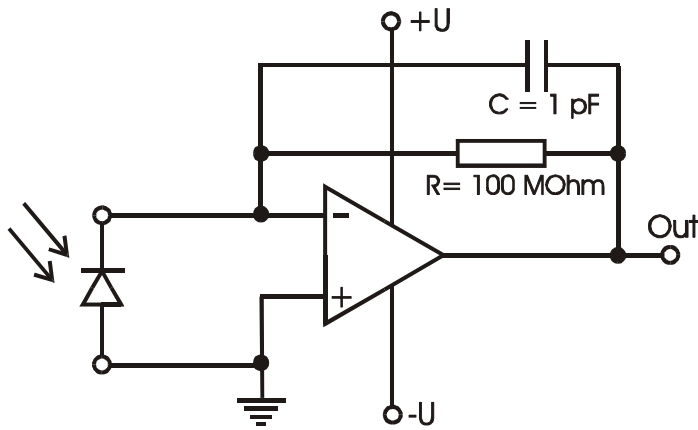
Linear Spectral Response



Logarithmic Spectral Response



Application Example



Pin Layout

