

## SG01L-C

---



### **Features**

- UVC Photodiode with large photoactive area
- Optimally suited for weak UVC intensities
- Silicon Carbide based chip for extreme irradiation hardness
- Spectral response in accordance with DVGW W 294
- TO-39 metal package with  $1.0 \times 1.0 \text{ mm}^2$  SiC chip
- The chip is made by Cree Research Inc., U.S.A.
- Radiation-hard UVC interference filter is made in Germany

### **Maximum Ratings**

Parameter	Symbol	Value	Unit
Operating temperature range	$T_{\text{opt}}$	-25 ... +80	°C
Reverse voltage	$V_{\text{Rmax}}$	20	V



## SG01L-C

### General Characteristics

( $T_a = 25\text{ °C}$ )

Parameter	Symbol	Value	Unit
Filter aperture	D	3.6	mm
Active area	A	0.96	mm <sup>2</sup>
Dark current at 1 V reverse bias	$I_d$	5	fA
Capacitance	C	200	pF
Short circuit current for 1 mW/cm <sup>2</sup> @ 254 nm	$I_0$	ca. 520	nA

### Spectral Characteristics

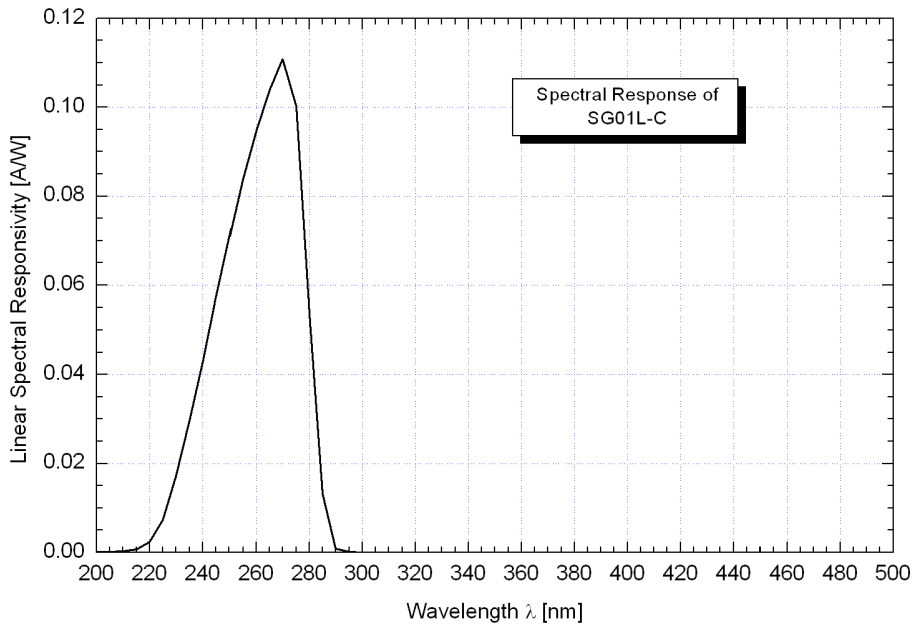
( $T_a = 25\text{ °C}$ )

Parameter	Symbol	Value	Unit
Max. spectral sensitivity	$S_{max}$	0.11	A W <sup>-1</sup>
Wavelength of max. spectral sensitivity	$\lambda_{Smax}$	270	nm
Range of spectral sensitivity ( $S=0.1*S_{max}$ )	-	230 - 285	nm

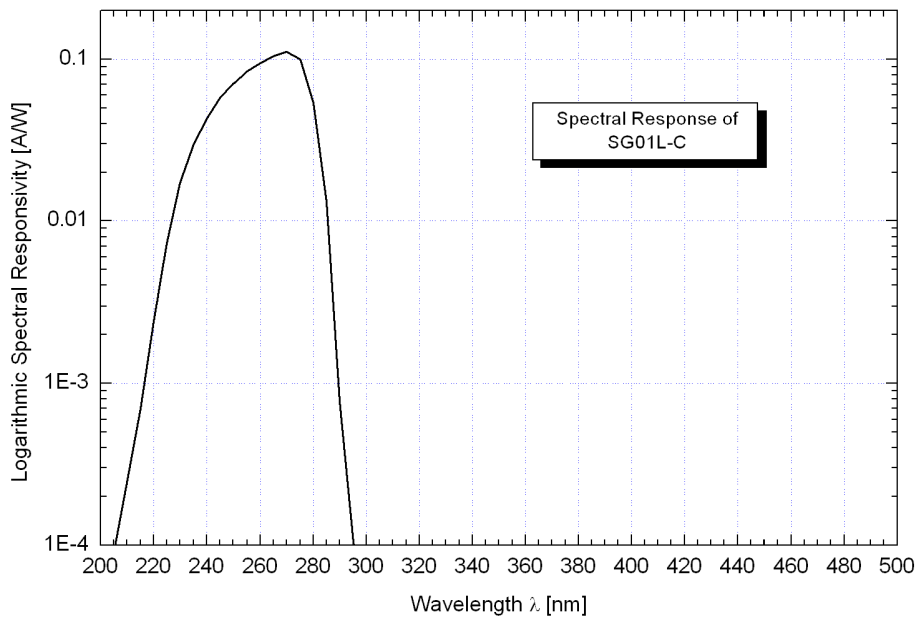


## SG01L-C

### Linear Spectral Response

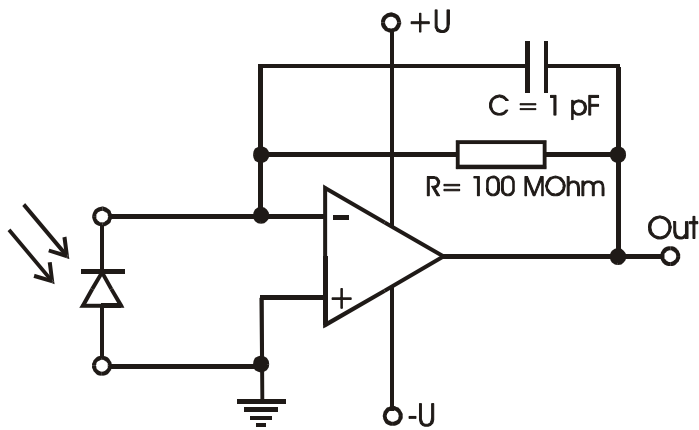


### Logarithmic Spectral Response



## SG01L-C

### Application Example



### Pin Layout

