

TOCON_ABC3

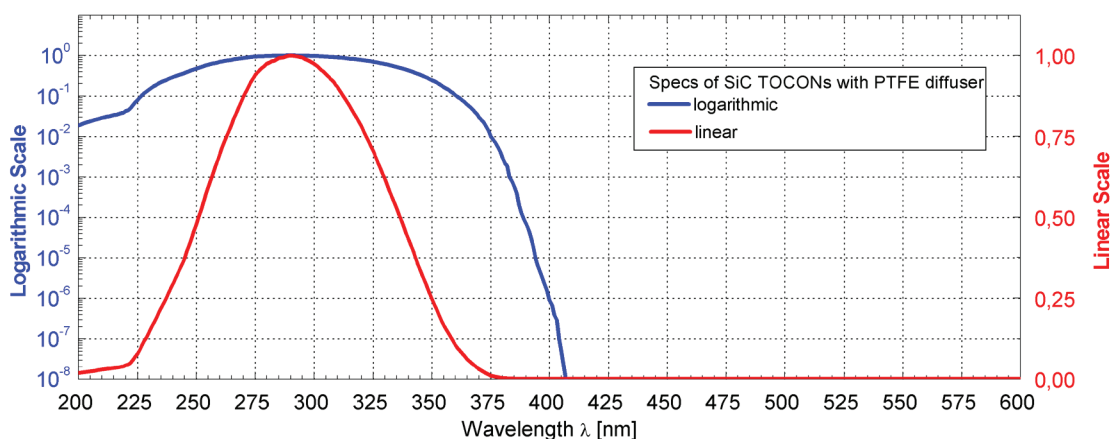
Broadband SiC based UV photodetector with integrated amplifier



SPECIFICATIONS

Parameter	Symbol	Value	Unit
Spectral Characteristics			
Typical Responsivity at Peak Wavelength	S_{max}	2,8	mV/nW/cm ²
Wavelength of max. Spectral Responsivity	λ_{max}	290	nm
Responsivity Range ($S=0,1*S_{max}$)	–	227 ... 360	nm
Visible Blindness ($S_{max}/S_{>405nm}$)	VB	$> 10^{10}$	–
General Characteristics (T=25°C, V_{supply} =+5 V)			
Supply Voltage	V _{Supply}	2,5 ... 5	V
Saturation Voltage	V _{Sat}	V _{Supply} - 5%	V
Dark Offset Voltage	V _{Offset}	700	μV
Temperature Coefficient at Peak	T _c	< -0,3	%/K
Current Consumption	I	150	μA
Bandwidth (-3 dB)	B	15	Hz
Risetime (10-90%)	t _{rise}	0,182	s
<i>(other risetimes on request)</i>			
Maximum Ratings			
Operating Temperature	T _{opt}	-25 ... +85	°C
Storage Temperature	T _{stor}	-40 ... +100	°C
Soldering Temperature (3s)	T _{sold}	300	°C

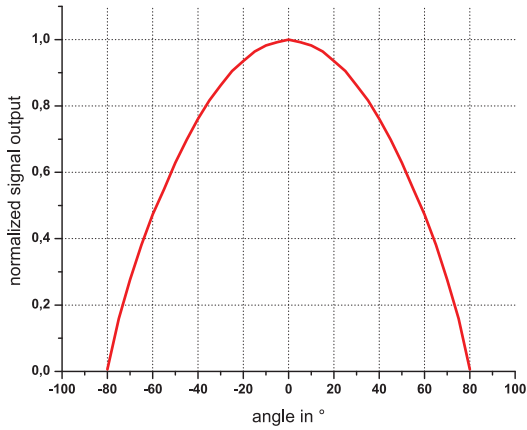
NORMALIZED SPECTRAL RESPONSIVITY



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FIELD OF VIEW

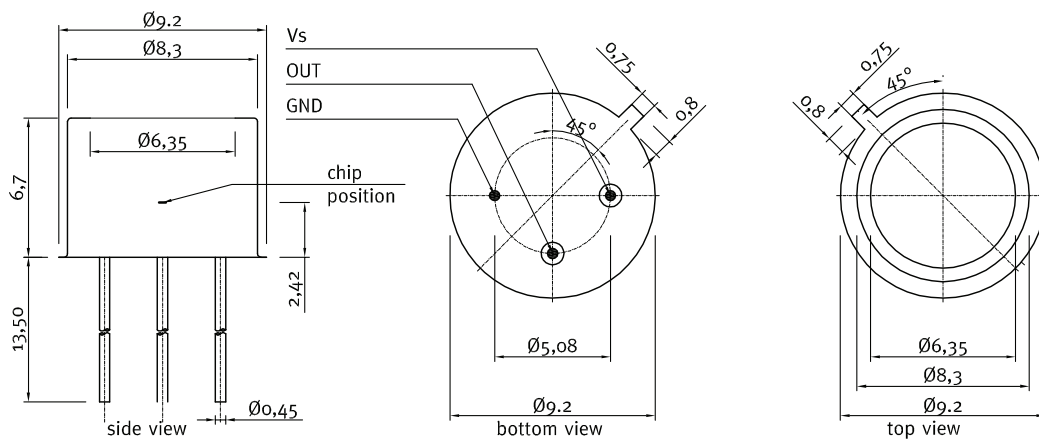


Measurement Setup:

lamp aperture diameter: 10 mm
distance lamp aperture to second aperture: 17 mm
second aperture diameter: 10 mm
distance second aperture to detector: 93 mm

pivot level = top surface of the detector window

DRAWING



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APPLICATION NOTE FOR TOCONs

The TOCONs need a supply voltage of $V_{\text{supply}} = 2,5 \dots 5V_{\text{DC}}$ and can be directly connected to a controller or voltmeter. Please note that the theoretic maximum signal output is always a little less (approx. 5%) than the supply voltage. To learn more about perfect use of the TOCONs please refer to the TOCON FAQ list published at www.sglux.com.

CAUTION! Wrong wiring leads to destruction of the device.

For easy setup of the device please ask for a TOCON starter kit.



Miniature steel housing with M12x1 thread for the TOCON series

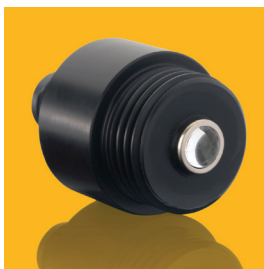
- Optional feature for all TOCON detectors
- Robust stainless steel M12x1 thread body, length 32 mm
- Integrated sensor connector (Binder 4-Pin plug) with 2m connector cable
- Easy to mount and to connect



Miniature PTFE housing with M12x1 thread for the TOCON series

- Optional feature for all TOCON detectors without concentrator lens
- Teflon (PTFE) M12x1 thread body, length 31 mm
- Wide field of view, dirt-repellant, water proof at wet side (IP 68)
- Integrated sensor connector (Binder 4-Pin plug) with 2m connector cable
- Easy to mount and connect, cleanable

The PTFE housing reduces the signal output by approx. 95%. Please consider this while selecting the TOCON's sensitivity range.



Plastic probes

- Optional feature for all TOCON detectors
- UV probes in small plastic housings with a TOCON inside
- Customized housings available
- Easy to mount and to connect
- Integrated sensor connector (Binder 4-Pin plug)
- Cable available



Water pressure proof TOCON housing

- Optional feature for all TOCON detectors without concentrator lens
- G1/4" thread, 10 bar water pressure proof
- Customized housings available
- Easy to mount and to connect
- Integrated sensor connector (Binder 5-Pin plug)
- Cable available