



## VUV photodiode

Model: ST-VUV1

### General Features:

- SiC-based vacuum ultraviolet (VUV) photodiode
- Excellent stability under high fluence VUV exposure
- Photovoltaic mode operation
- Visible blind and low dark current
- High detection efficiency for 193 nm VUV radiation
- TO-46 metal housing with sapphire window

**Applications:** VUV radiation flux measurement, 193 nm excimer laser monitoring

### Specifications:

Parameters	Symbol	Value	Unit
<b>Maximum ratings</b>			
Operation temperature range	$T_{opt}$	-20-80	°C
Storage temperature range	$T_{sto}$	-55-90	°C
Soldering temperature (3 s)	$T_{sol}$	260	°C
Maximum reverse voltage	$V_{r-max}$	-20	V
<b>Electro-Optical characteristics (25 °C)</b>			
Chip size	A	1	mm <sup>2</sup>
Responsivity (@ 193 nm)	R	50	mAW
Dark current ( $V_r = -5$ V)	$I_d$	< 100	pA
Shunt resistance (@ ±10mV)	$R_{sh}$	>10	G
Capacitance (@ 0 V and 1 MHz)	$C_p$	27	pF