



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
Maximum ratings			
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
Electro-Optical characteristics (25 °C)			
Chip size	A	1	mm ²
Responsivity (@ 193 nm)	R	50	mA/W
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