

Ultraviolet selective thin film sensor

TW30DY2

Features

- Schottky-type photodiode
- Intrinsic visible blindness due to wide-bandgap semiconductor material
- Built-in filter glass for low sensitivity above 400nm
- Large photoactive area
- No focusing lens needed, therefore large usable incident angle
- Designed to operate in photovoltaic mode
- TO-39 metal package

Maximum Ratings

Parameter	Symbol	Value	Unit
Operating temperature range	T_{opt}	-20 ... +80	°C
Reverse voltage	V_{Rmax}	3	V
Forward current	I_{Fmax}	5	mA
Total power dissipation at 25°C	P_{tot}	5	mW

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General Characteristics

($T_a = 25\text{ °C}$)

Parameter	Symbol	Value	Unit
Active area	A	15,66	mm ²
Active area dimensions	L x W	5.4 x 2.9	mm ²
Max. viewing angle	α	app. 60	degree
Shunt resistance (dark)	R_s	100	M Ω
Dark current at 10mV reverse bias	I_d	100	pA
Open circuit voltage (200 μ W/cm ² , $\lambda=300$ nm)	V_0	>200	mV
Short circuit current (200 μ W/cm ² , $\lambda=300$ nm)	I_0	564	nA
Breakdown voltage (dark)	V_{BR}	> 3	V

Spectral Characteristics

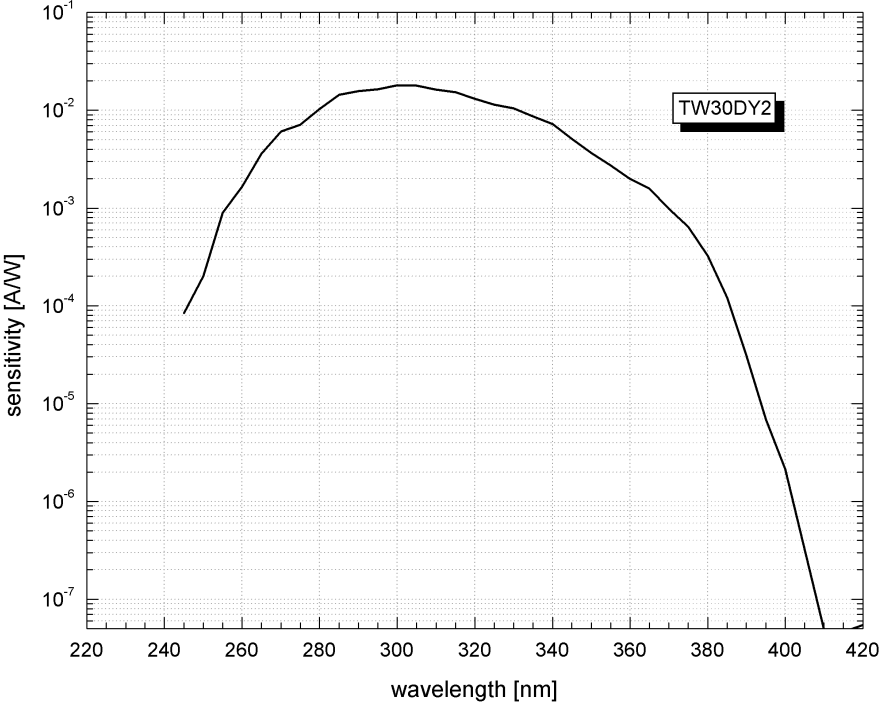
($T_a = 25\text{ °C}$)

Parameter	Symbol	typ. Value	Unit
Max. spectral sensitivity	S_{max}	18	mA W ⁻¹
Wavelength of max. spectral sensitivity	λ_{Smax}	300	nm
Range of spectral sensitivity ($S=0.1*S_{max}$)	-	260-362	nm
Visible blindness	$\frac{S_{max}}{S_{400nm}}$	10.000	

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Spectral Response



Pin Layout

