

Ultraviolet selective thin film sensor



TW30SY

Features

- Schottky-type photodiode
- Intrinsic visible blindness due to wide-bandgap semiconductor material
- 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}	0 to +60	°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	typ. Value	Unit
Active area	A	15.66	mm ²
Active area dimensions	L x W	5.4 x 2.9	mm
Shunt resistance (dark)	R _p	10	MΩ
Dark current at (10mV reverse bias)	I _d	100	pA
Open circuit voltage (200 μW / cm ² ; λ = 300 nm)	V ₀	120	mV
Short circuit current (200 μW / cm ² ; λ = 300 nm)	I ₀	620	nA
Breakdown voltage (dark)	V _{BR}	> 3	V

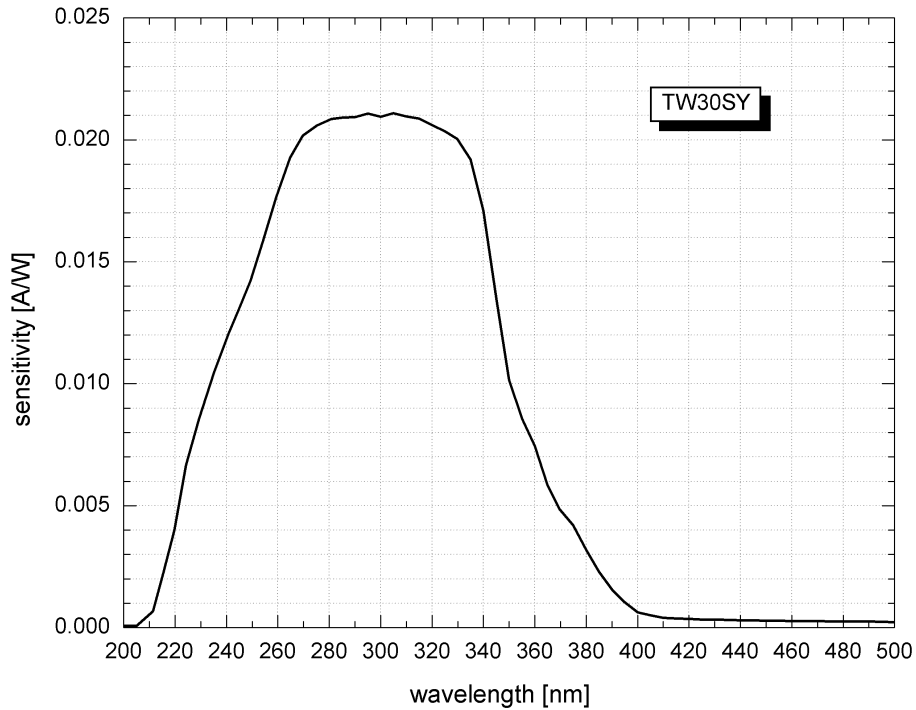
Spectral Characteristics

($T_a = 25\text{ °C}$)

Parameter	Symbol	typ. Value	Unit
Max. spectral sensitivity	S _{max}	20	mA·W ⁻¹
Wavelength of max. spectral sensitivity	λ _{Smax}	300	nm
Range of spectral sensitivity (S = 10 % of S _{max})	-	215 – 387	nm
Visible blindness	$\frac{S_{max}}{S_{400nm}}$	50	

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Spectral Response



Pin Layout

