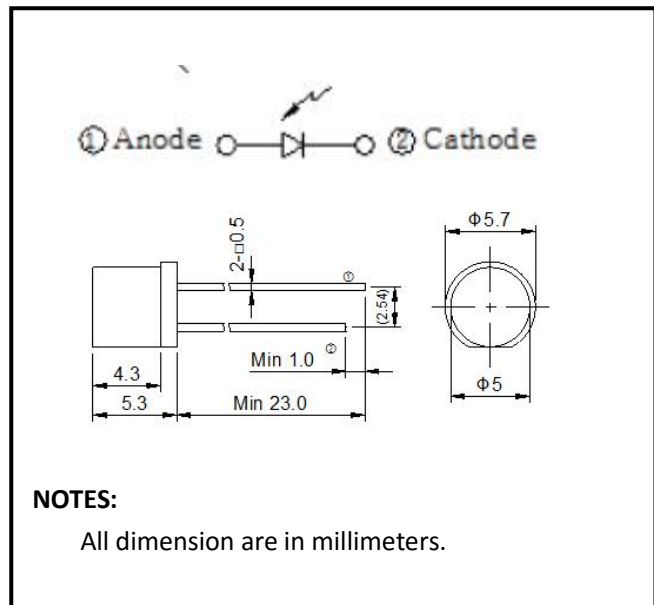
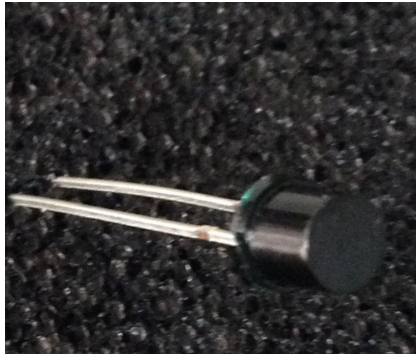


High speed Photodiode

OSX203



Description

The OSX203 is high speed, high sensitivity silicon Photodiode mounted in plastic flat top T1 3/4 package , permits wide angular response, daylight filter, reflow solderable.

Features

- * High speed response
- * Wide angular response
- * High reliability in demanding environments
- * Operating temperature is from -40 to +80°C
- * Storage temperature is from -40 to +100°C
- * soldering temperature is 260°C @Max.5 seconds at the position of 2mm from the PIN legs.

General Ratings

- * Type UV Silicon Photodiode
- * High linearity
- * Chip active area: Ø0.61mm
- * Low dark current

Applications

- * High speed photometry
- * pulse light detection
- * Fiber optic light monitoring
- * High speed switch
- * High speed optical communications

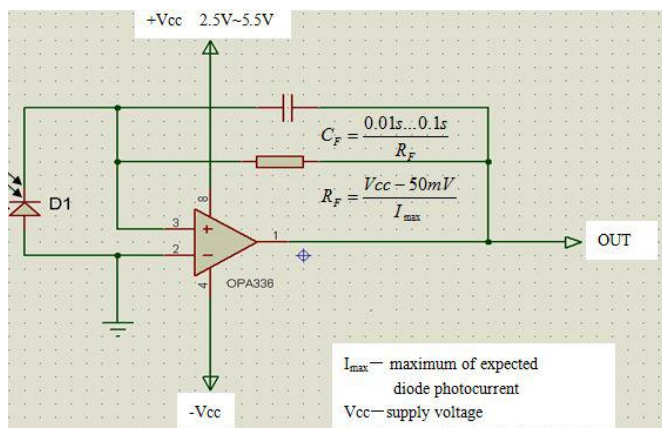
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Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Short circuit Current	I _{SC}	Ev=100lx fc=2856k*		9		μA
Isc Temperature Coefficient	TC I _{sc}	2856k		1.1		%/°C
Open Circuit Voltage	V _{oc}	Ev=100lx fc=2856k*		320		mV
Voc Temperature Coefficient	TC Voc	2856k		-2.2		mV/°C
Dark current	I _D	VR=10mV		0.30		nA
		VR=10V		1		
Rise time	t _R	V _R =5V;λ=850nm;R _L =50Ω		2		ns
Temp coefficient of I _D	T _{CI_D}			0.18		times/°C
Reverse breakdown voltage	V _{(BR)R}	I _R =100μA Ev=0lx	33			V
Junction Capacitance	C _J	V _R =0V f=1MHz		10.1		pF
		V _R =10V f=1MHz		3.1		
Photo sensitivity	S _R	850nm		0.15		A/W
		905nm		0.44		
Spectral Application Range	λ _{range}		700		1100	nm
Spectral Response-Peak	λ _p			940		nm
Shunt resistance	R _{sh}	V _R =10mV		0.33		GΩ
Rsh Temperature Coefficient	TC R _{sh}	Ev=100lx , VR=10mV		0.18		%/°C
Angular Resp 50% Resp Pt	θ _{1/2}			±75		Degrees
Noise Equivalent Power	NEP	V _R =10V λ=940nm		4.0×10 ⁻¹⁵		W/Hz ^{1/2}

* Ev: Illuminance by CIE standard light source A (tungsten lamp)

Application Circuit:



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OTRON ELECTRONIC TECHNOLOGY CO.LTD

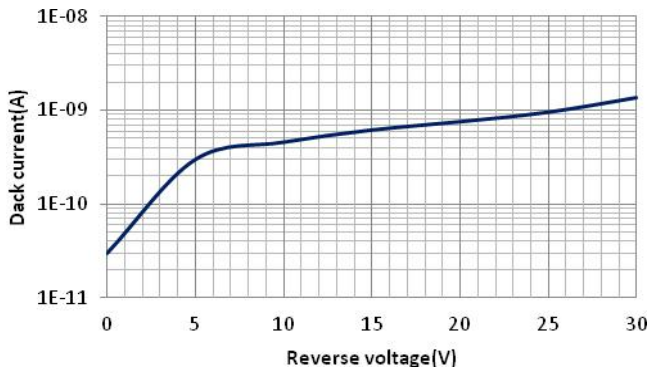
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FAX:+86-21-54971823

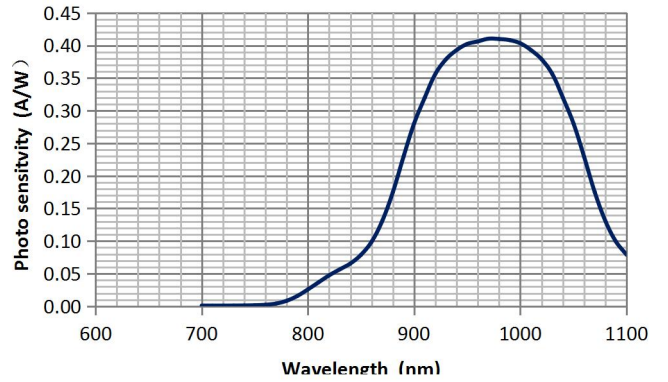
EMAIL:sales@otronsensor.com

[Http://www.otronsensor.com](http://www.otronsensor.com)

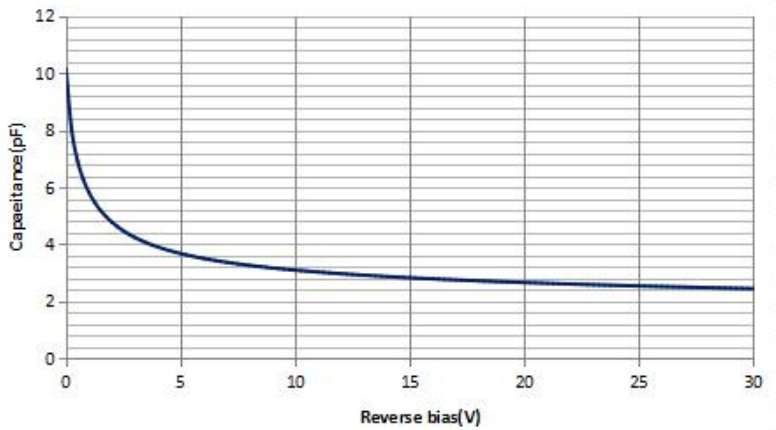
■ Dark current vs. reverse voltage



■ Spectral response



■ Capacitor vs. reverse voltage





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