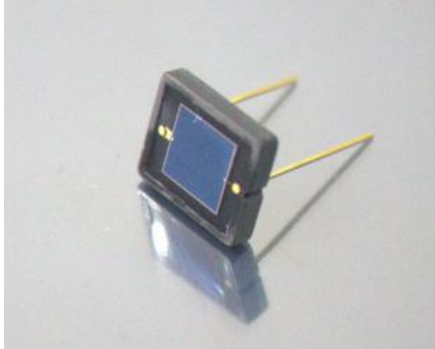


Silicon PIN Photodiode

OSD36-IC



Descri

The OSD36-IC is high-output, high sensitivity silicon Photodiode mounted in ceramic stem package, With resin coating , permits wide angular response.

Features

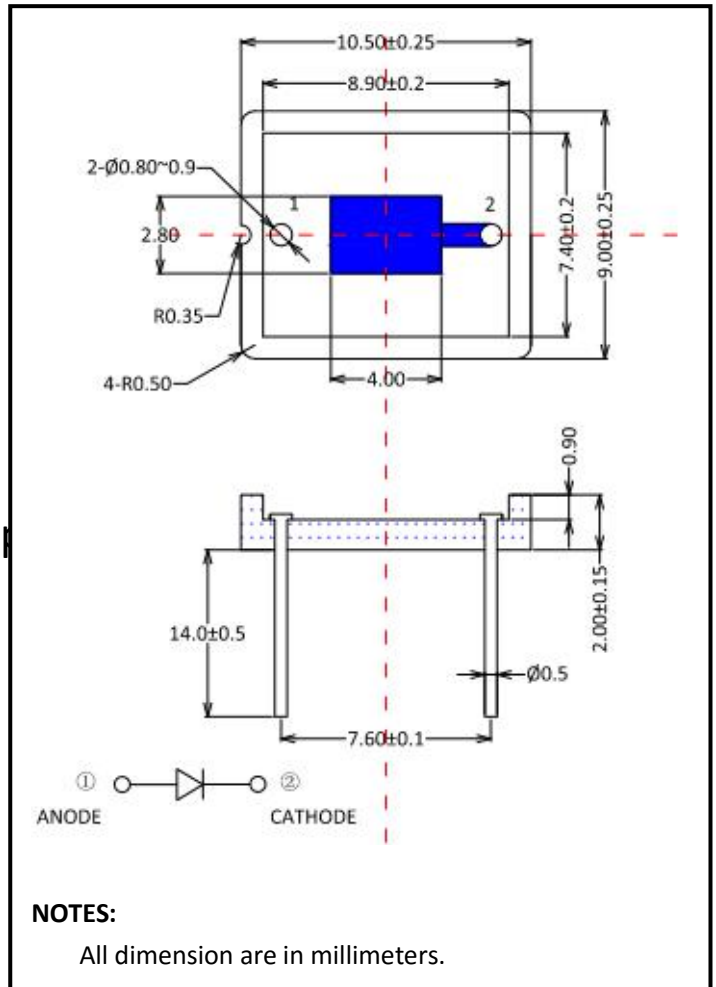
- * High speed response
- * Wide angular response
- * Operating temperature is from -40 to +80°C
- * Storage temperature is from -40 to +100°C
- * soldering temperature is 260°C @Max.5 seconds at the position of 2mm from the PIN legs.

General Ratings

- * Type Silicon Photodiode
- * High linearity
- * Chip active area: 6.0mm*6.0mm
- * Low dark current

Applications

- * Analytical instruments
- * Precision photometry
- * Fluorescence detector
- * IR/ Laser light Monitoring
- * Optical measurement equipment
- * Medical equipment
- * Spectrophotometry/CT scan



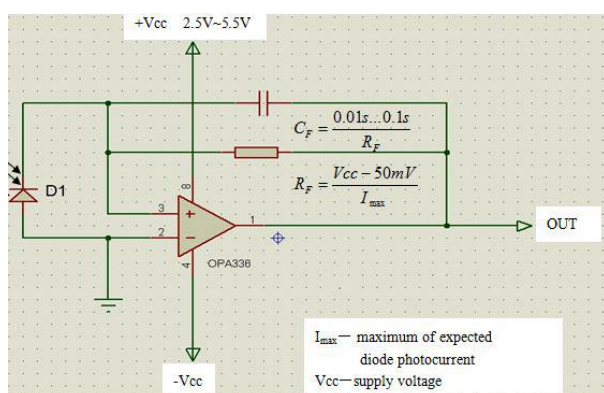
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Absolute Maximum Ratings (Ta=25°C)

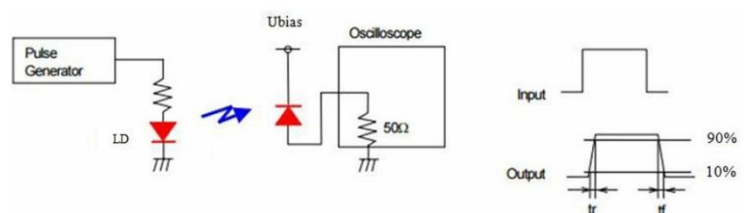
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	Size		6.0*6.0			mm ²
Active area	A		5.706*5.706			mm ²
Short circuit Current	I _{sc}	Ev=100lx fc=2856k*		152		μA
Isc Temperature Coefficient	TC Isc	2856k		1.1		%/°C
Open Circuit Voltage	Voc	Ev=100lx fc=2856k*		249		mV
Voc Temperature Coefficient	TC Voc	2856k		-2.2		mV/°C
Dark current	I _D	VR=10mV		100		pA
		VR=10V		1000		
Rise time**	t _R	V _R =0V;λ=850nm;R _L =50Ω,f=1MHz		2		us
		V _R =10V;λ=850nm;R _L =50Ω,f=1MHz		25		ns
Temp coefficient of I _D	T _{CID}			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		271		pF
		V _R =10V f=1MHz		55		
Photo sensitivity	S _R	650nm		0.38		A/W
		940nm		0.64		
Spectral Application Range	λ _{range}		400		1100	nm
Spectral Response-Peak	λ _p			940		nm
Shunt resistance	R _{sh}	VR=10mV		0.1		GΩ
Rsh Temperature Coefficient	TC Rsh	Ev=100lx , VR=10mV		0.18		%/°C
Angular Resp 50% Resp Pt	θ _{1/2}			±60		Degrees
Noise Equivalent Power	NEP	V _R =10V λ =940nm		2.39×10 ⁻¹⁴		W/Hz ^{1/2}
Specific Detectivity	D*	V _R =10V λ =940nm		2.51×10 ¹³		cm(Hz/W) ^{1/2}

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

Typical application circuit



** Response time measurement Circuit:



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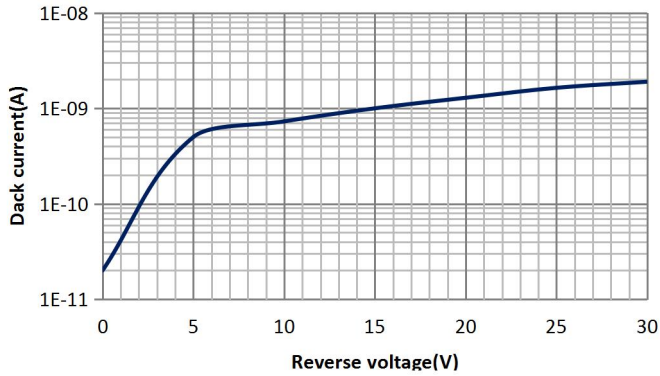
FAX:+86-21-54971823

EMAIL:sales@otron-sensor.com

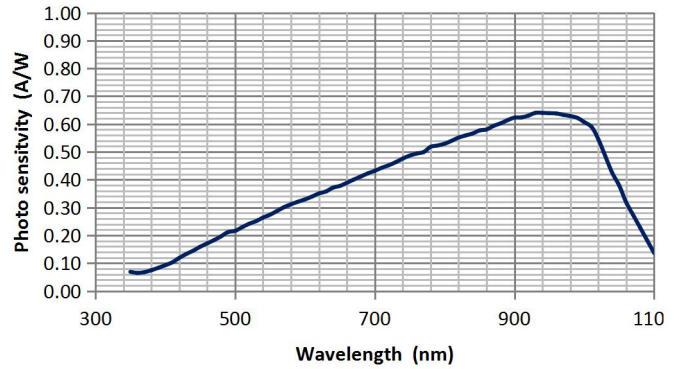
[Http://www.otron-sensor.com](http://www.otron-sensor.com)



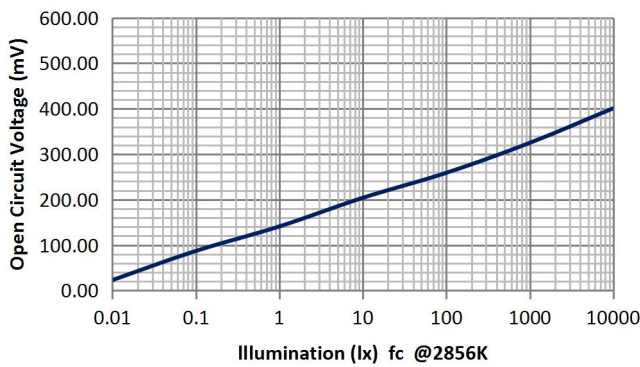
■ Dark current vs. reverse voltage



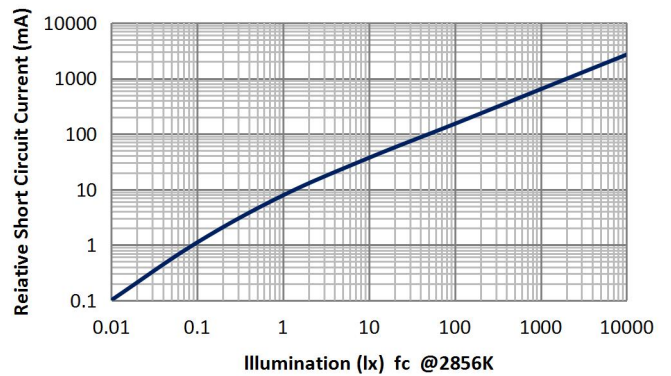
■ Spectral response



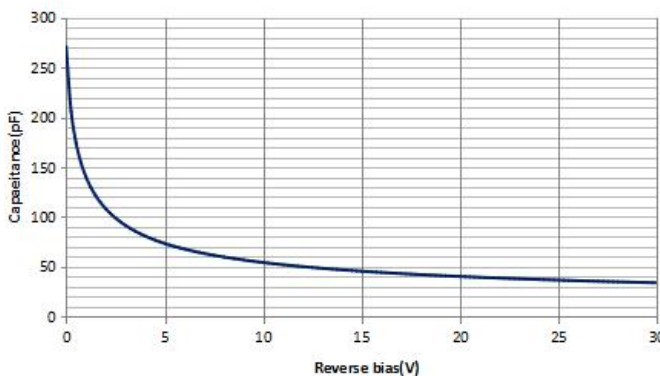
■ Open circuit Voltage vs Illumination



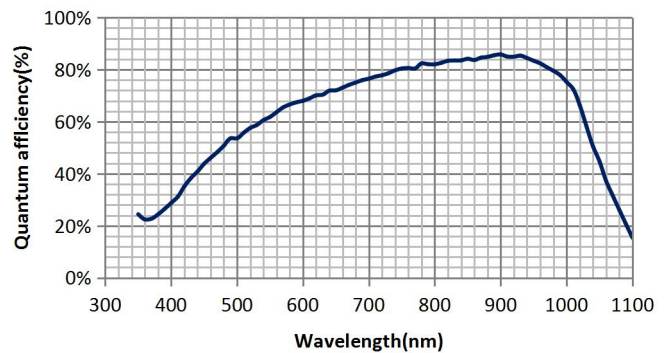
■ Relative Short Circuit Current vs. Illumination



■ Relative Junction Capacitance VS. Voltage



■ Quantum efficiency



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