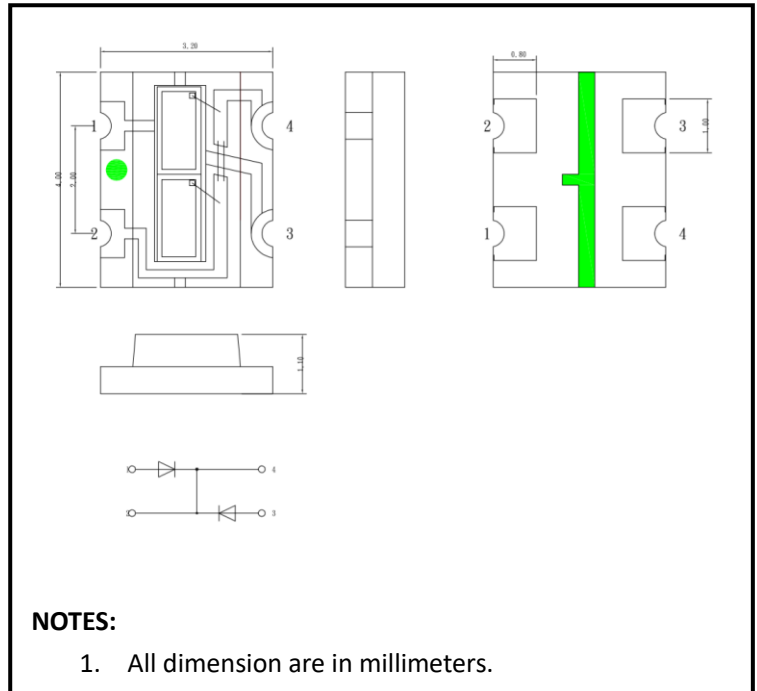


## Silicon PIN Photodiode Array



### Description

The OSD2017(2 cell) is a PIN photo diode array with 0.09mm gap of each element, for Nulling Operation, centering or electro measuring small positional changes, mounted in a surface mount package.

### Absolute Maximum Ratings (Ta=25 °C)

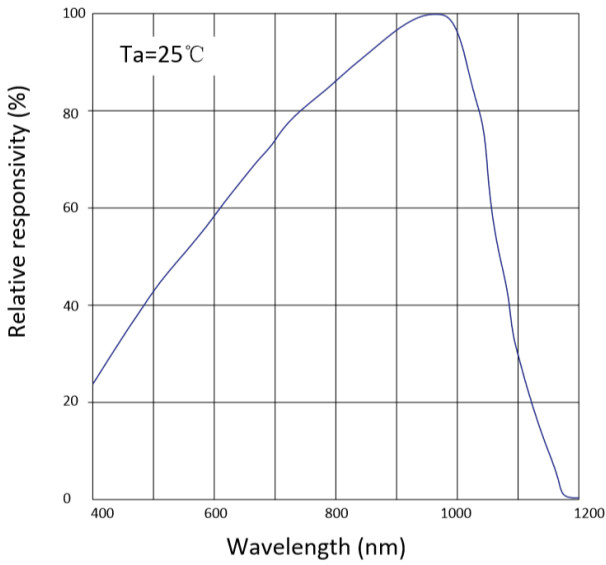


Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	Size		0.81*3.30			mm <sup>2</sup>
Active area	A		1.44*0.63*2elements			mm <sup>2</sup>
Gap	Gap	Distance of Element to element	0.099			mm
Short circuit Current	I <sub>sc</sub>	Ev=1000lx fc=2856k* VR=5V		35		μA
Isc Temperature Coefficient	TC I <sub>sc</sub>	2856k		1.1		%/°C
Dark Current	I <sub>d</sub>	VR=10V			5	nA
Rise time	t <sub>r</sub>	V <sub>R</sub> =10V;λ=850nm;R <sub>L</sub> =50Ω		10		ns
Temp coefficient of I <sub>d</sub>	T <sub>CI<sub>d</sub></sub>			0.18		times/°C
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =10mA	0.5	-	1.3	V
Reverse breakdown voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =100μA Ev=0lx	35			V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V f=1MHz		12		pF
		V <sub>R</sub> =3V f=1MHz		4		
Photo sensitivity	S <sub>R</sub>	650nm		0.38		A/W
		940nm		0.64		
Spectral Application Range	λ <sub>range</sub>		400		1100	nm
Spectral Response-Peak	λ <sub>p</sub>			940		nm
Angular Resp 50% Resp Pt	θ <sub>1/2</sub>			±65		Degrees

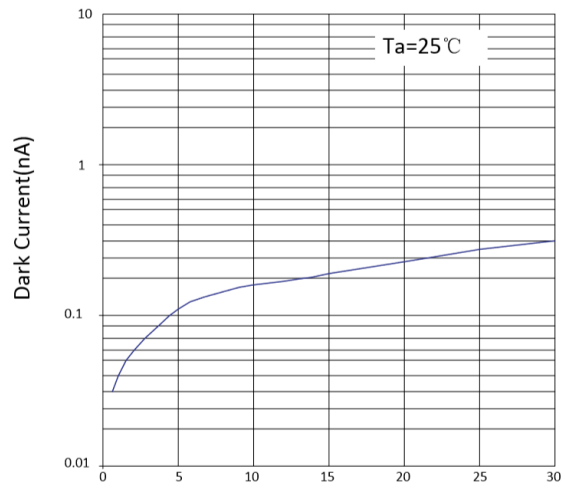
\* Ev: Illuminance by CIE standard light source A (tungsten lamp)



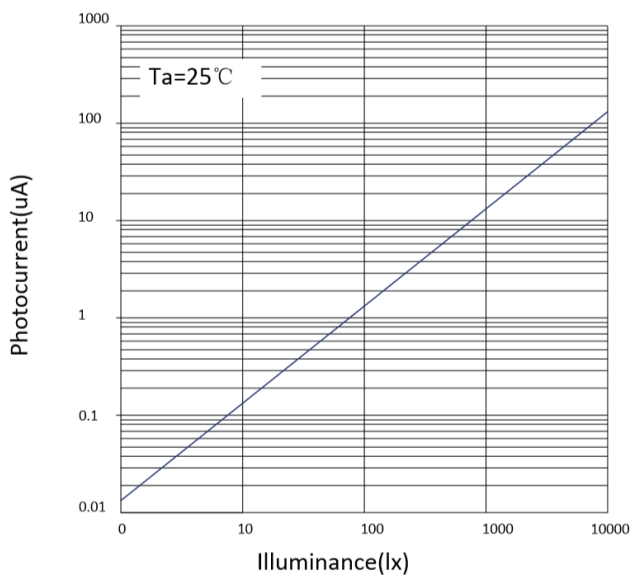
Spectral Responsivity



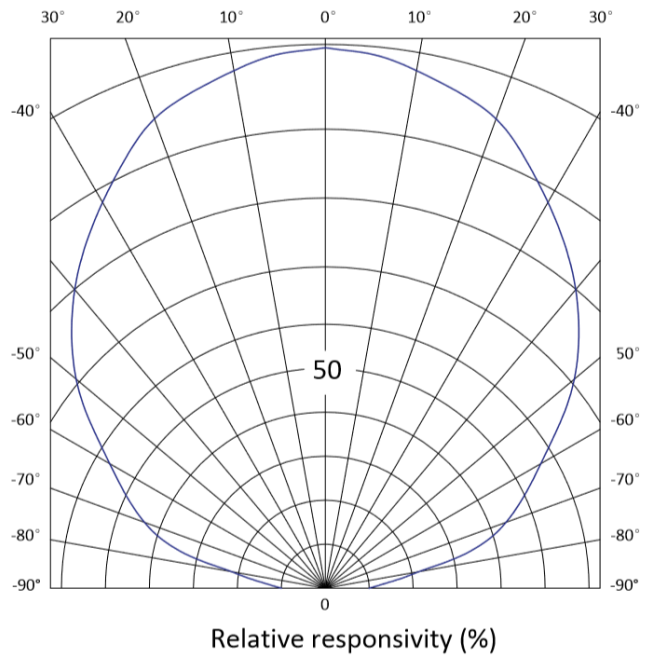
Dark Current-Reverse Voltage



Photocurrent-Illuminance



Directivity



Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice

OTRON ELECTRONIC TECHNOLOGY CO., LTD

TEL:+86-21-54971821

FAX:+86-21-54971823

EMAIL: [frank.shuai@e-otron.com](mailto:frank.shuai@e-otron.com)

<http://www.e-otron.com>