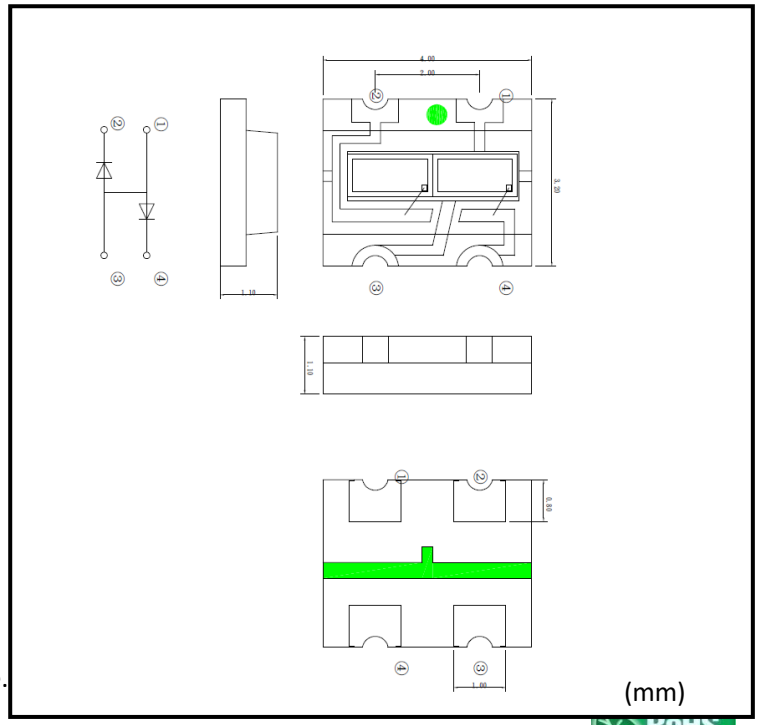
OSD2017

Silicon PIN Photodiode Array



(mm)

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, N on P photodiode mounted in a surface mount package.

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	Size		0.812*3.251			mm^2
Active area	A		1.448*0.635*2elements			mm^2
Gap	Gap	Distance of Element to element	0.09			mm
Short circuit Current	I_{SC}	Ev=1000lx fc=2856k* VR=5V		35		μA
Isc Temperature Coefficient	TC Isc	2856k		1.1		%/℃
Dark Current	Id	VR=10V			5	nA
Rise time	t_R	V_R=10V;λ=850nm;R_L=50Ω		10		ns
Temp coefficient of I_D	T_{CID}			0.18		times/℃
Forward voltage	VF	IF=10mA	0.5	-	1.3	V
Reverse breakdown voltage	$V_{(BR)R}$	I_R=100μA Ev=0lx	35			V
Junction Capacitance	C_J	V_R=0V f=1MHz		12		pF
		V_R=3V f=1MHz		4		
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
Angular Resp 50% Resp Pt	$\theta_{1/2}$			±65		Degrees

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

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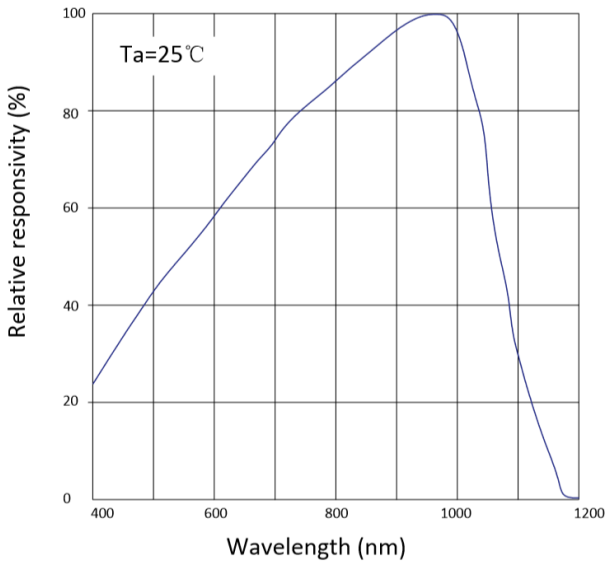
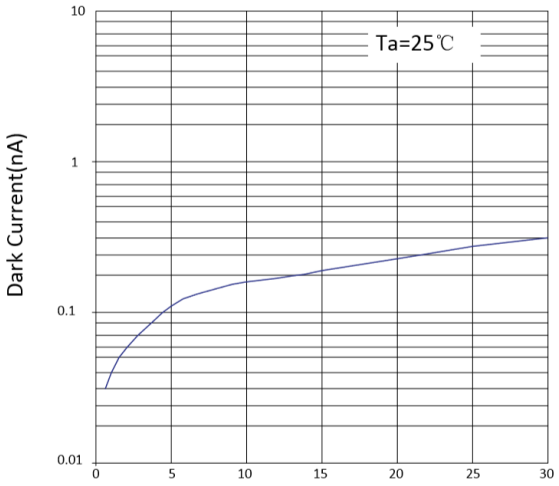
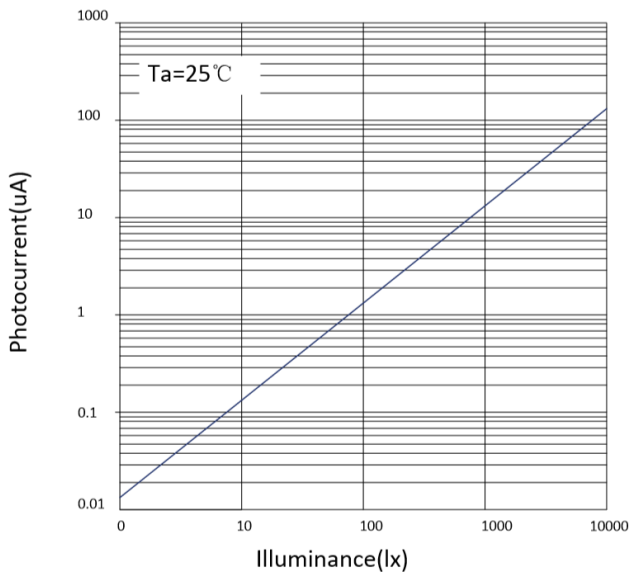
Spectral Responsivity



Dark Current-Reverse Voltage



Potocurrent-Illuminance



Directivity