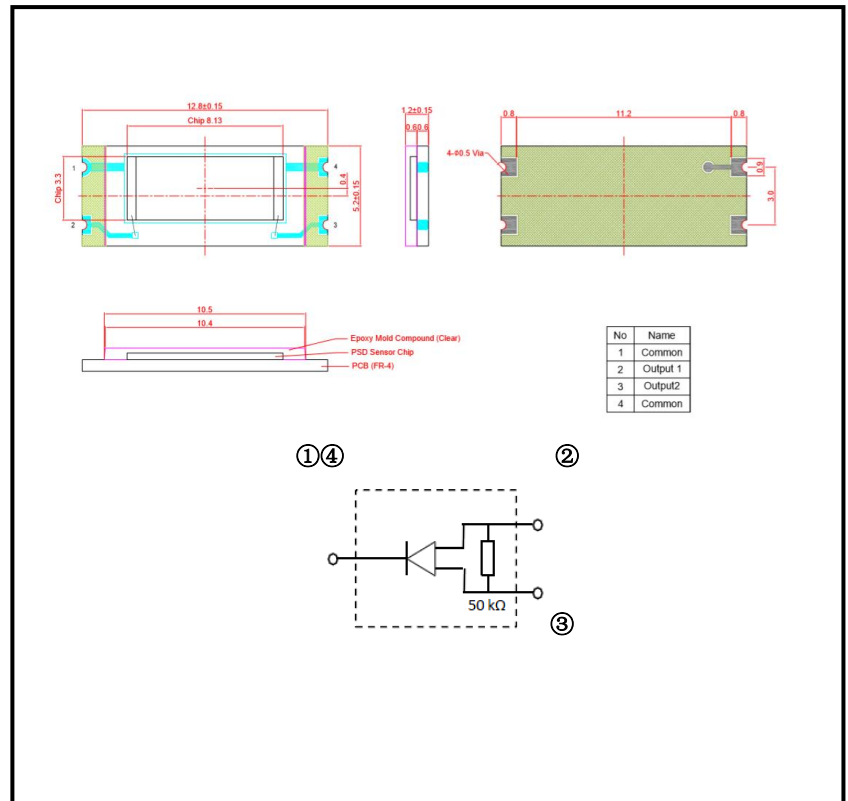
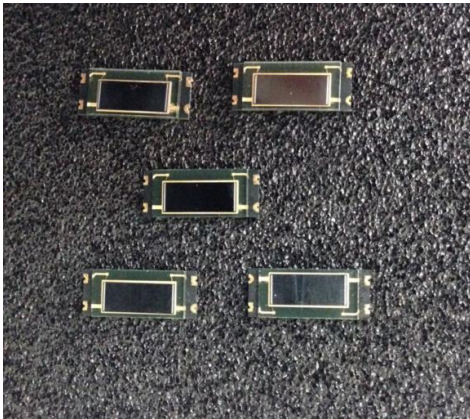


One Direction Position Sensing Detector PSD0308



Description

The PSD0308 is according to the lateral effect photodiode principle. It is analogue device and displays excellent position resolution under better system signal to noise ration.

It has low dark current, high linearly in the biased mode. It can also detect the optical power and position of the light sourcing at the same time.

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 +120°C

General Ratings

- * High linearity
- * Low dark current

Applications

- * Proximity sensor
- * Laser beam focusing

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

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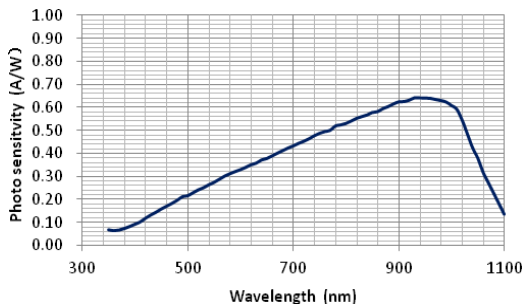


Absolute Maximum Ratings (Ta=25°C)

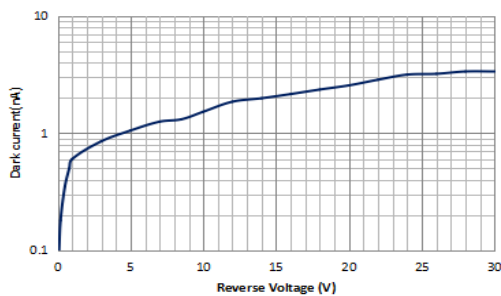
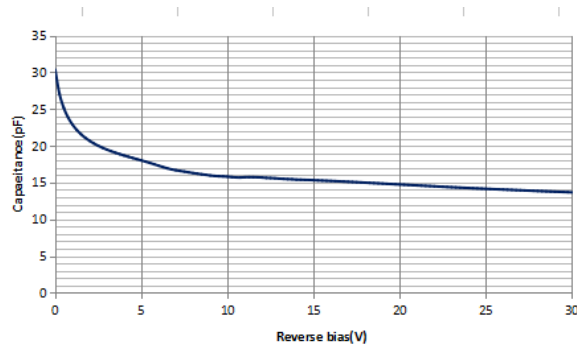
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	S		3.302*8.128			mm ²
Active area	A		3.048*7.62			mm ²
Light Current	I _o	Ev=1000lx VR=5V	200	250		μA
Isc Temperature Coefficient	TC Isc	2856k		0.18		%/°C
Reverse Voltage	VR	IR=10nA		30		V
Voc Temperature Coefficient	TC Voc	2856k		-2.2		mV/°C
Dark current	I _D	VR=1V		10		nA
Rise time	t _R	V _R =1V;λ=850nm;R _L =1kΩ		2		μs
Junction Capacitance	C _J	V _R =0V f=1MHz		30.37		pF
		V _R =10V f=1MHz		15.8		
Spectral Application Range	λ _{range}		400		1100	nm
Spectral Response-Peak	λ _p			940		nm
Angular Resp 50% Resp Pt	θ _{1/2}			±60		Degrees
Interelectrode resistance	R _s	Ev=0lx	30	50	70	kΩ
Noise limited resolution	Res.	λ=635nm, Po=0.5uW, Spot size= φ 0.5mm		0.05		um
Position detection error	Pe	λ=635nm, Po=0.5uW, Spot size= φ 0.5mm		±0.2	±1.0	%

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

■ Spectral response



■ Reverse bias voltage Vs Capacitor



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