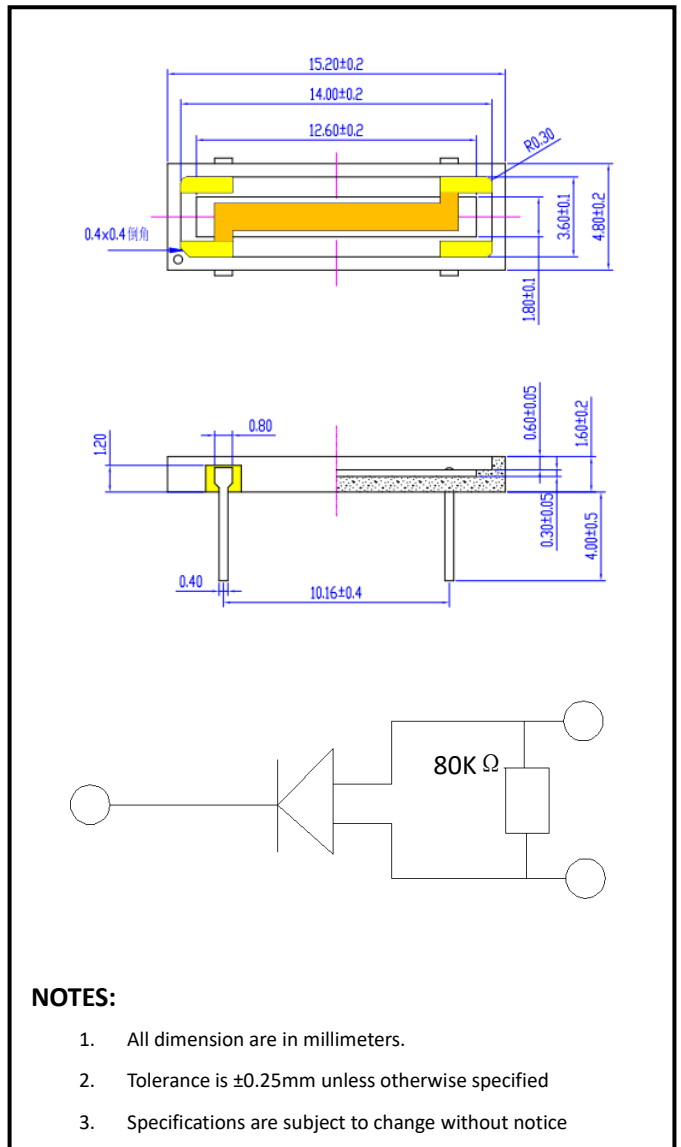
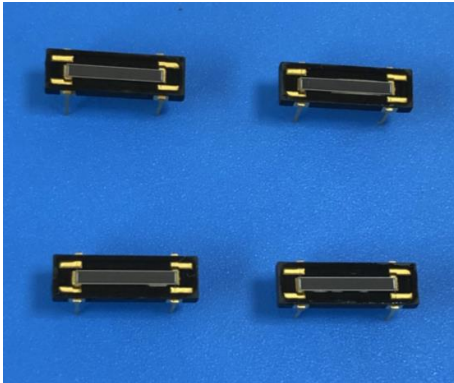


One Direction Position Sensing Detector PSD0110



Description

The PSD0110 is according to the Lateral Effect Photodiode principle. It is analogue device and displays excellent position resolution under better system signal to noise ratio.

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

- *10mm*1.0mm active area
- * High position resolution
- * Good responsibility for 650nm laser
- * High linearity
- * Low dark current

Applications

- *Laser beam focusing
- *Distance measurement
- *triangle distance measurement
- *Proximity sensor

NOTES:

1. All dimension are in millimeters.
2. Tolerance is ±0.25mm unless otherwise specified
3. Specifications are subject to change without notice

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: otron.sensor@gmail.com

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

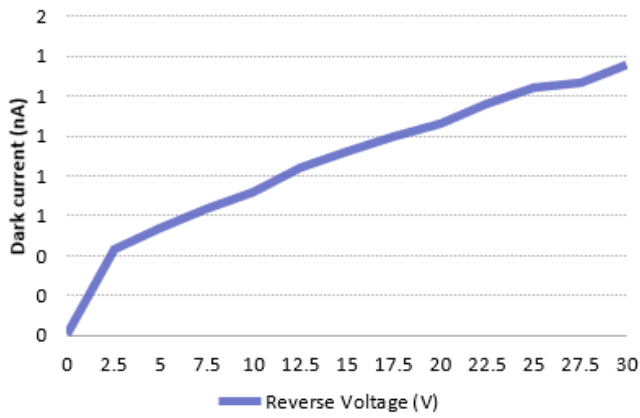


Absolute Maximum Ratings (Ta=25°C)

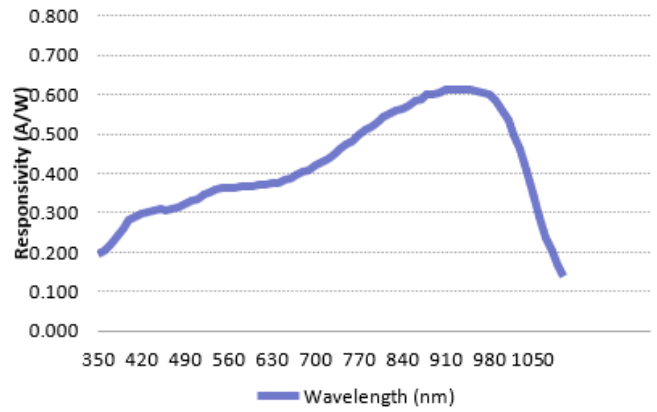
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Active area	A			1.0*10		mm ²
Dark current	I _D	V _R =0V		0.006		nA
		V _R =5V		0.54		nA
Rise time	t _R	V _R =10V;λ=850nm;R _L =50Ω		0.5		us
Thermal drift				20	100	ppm/°C
Reverse breakdown voltage	V _{(BR)R}	I _R =10μA Ev=0lx		15	30	V
Junction Capacitance	C _J	V _R =0V f=1MHz		50		pF
		V _R =10V f=1MHz		5.2		
Photo sensitivity	S _R	650nm		0.27		A/W
		940nm		0.51		A/W
Position detection error		λ =650nm;P=0.5μW,spot dia.0.5mm		±0.2	±0.3	%
Noise lim. resolution		λ =650nm;P=0.5μW,spot dia.0.5mm		0.5		μm
Spectral Application Range	λ _{range}		400		1100	nm
Spectral Response-Peak	λ _p			940		nm
Shunt resistance	R _{sh}	V _R =100mV		80		KΩ

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

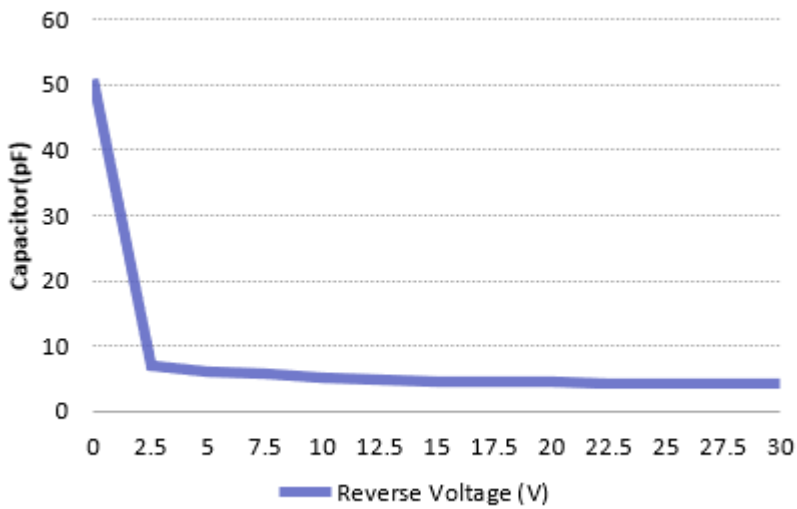
■ Dark current vs. reverse voltage



■ Spectral response



■ Relative Junction Capacitance



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: otron.sensor@gmail.com

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