

High Linearity Position Sensing Detector

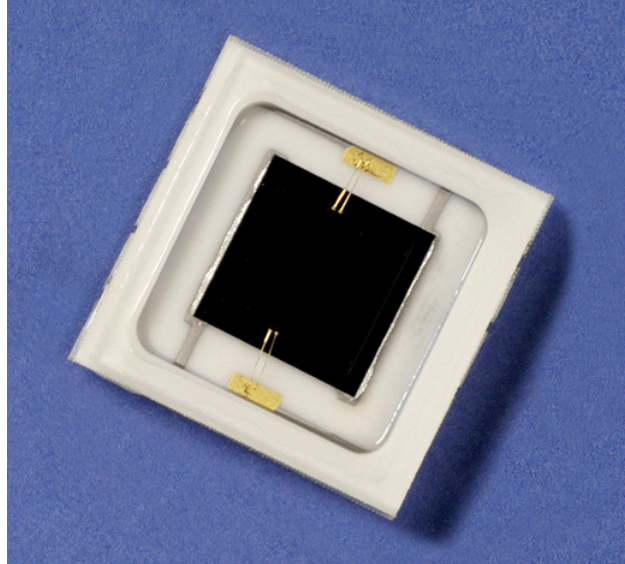
Part Number: S2-0184
Description: 2L4_SU71

The SiTek 2L4 PSD functions according to the Lateral Effect Photodiode principle. It is an analogue device and therefore displays excellent position resolution. The resolution is determined by the system signal-to-noise ratio.

The 2L4 is operated in the biased mode.

Typical applications include: distance and height measurement, alignment, position and motion measurements and vibration studies.

Special UV- or YAG-enhanced and Nuclear versions are available.



Parameter	Symbol	Min.	Typ.	Max.	Unit
Active area			4 x 4		mm ²
Position non-linearity			0,3	0,8	%(±)
Detector resistance	R _{det}	7	10	16	kΩ
Dark current	I _d		50	200	nA
Noise current	I _{noise}		1,3	2,5	pA/√Hz
Responsivity	r		0,63		A/W
Capacitance	C _j		20	25	pF
Rise time (10-90%)	t _r		80	160	ns
Reverse voltage (bias)	V _r	5	15	20	V
Thermal drift			40	200	ppm/°C
Maximum ratings					
Reverse voltage	V _{R-max}			30	V
Operating temperature	T _{oper}			70	°C
Storage temperature	T _{stg}			100	°C

Test conditions: Room temperature 23°C. Reverse voltage 15 V. Light-source wavelength 940 nm.
Position non-linearity and thermal drift are valid within 80% of the detector length.

Package: SMD package, 12,7 x 12,7 mm², with protective window.

