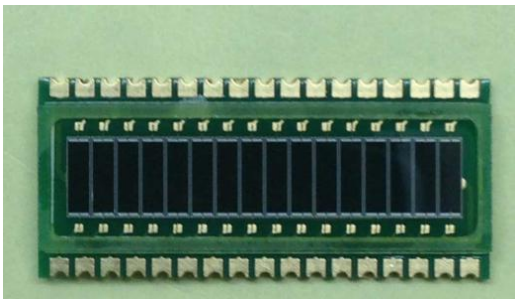
PSD0103-16A

One Direction

Position Sensing Detector

Array



Description

The PSD0103-16A is PSD array with 16 parallel Dimensional PSD chips.
It has low dark current, high linearly and high Speed for each segment.

Features

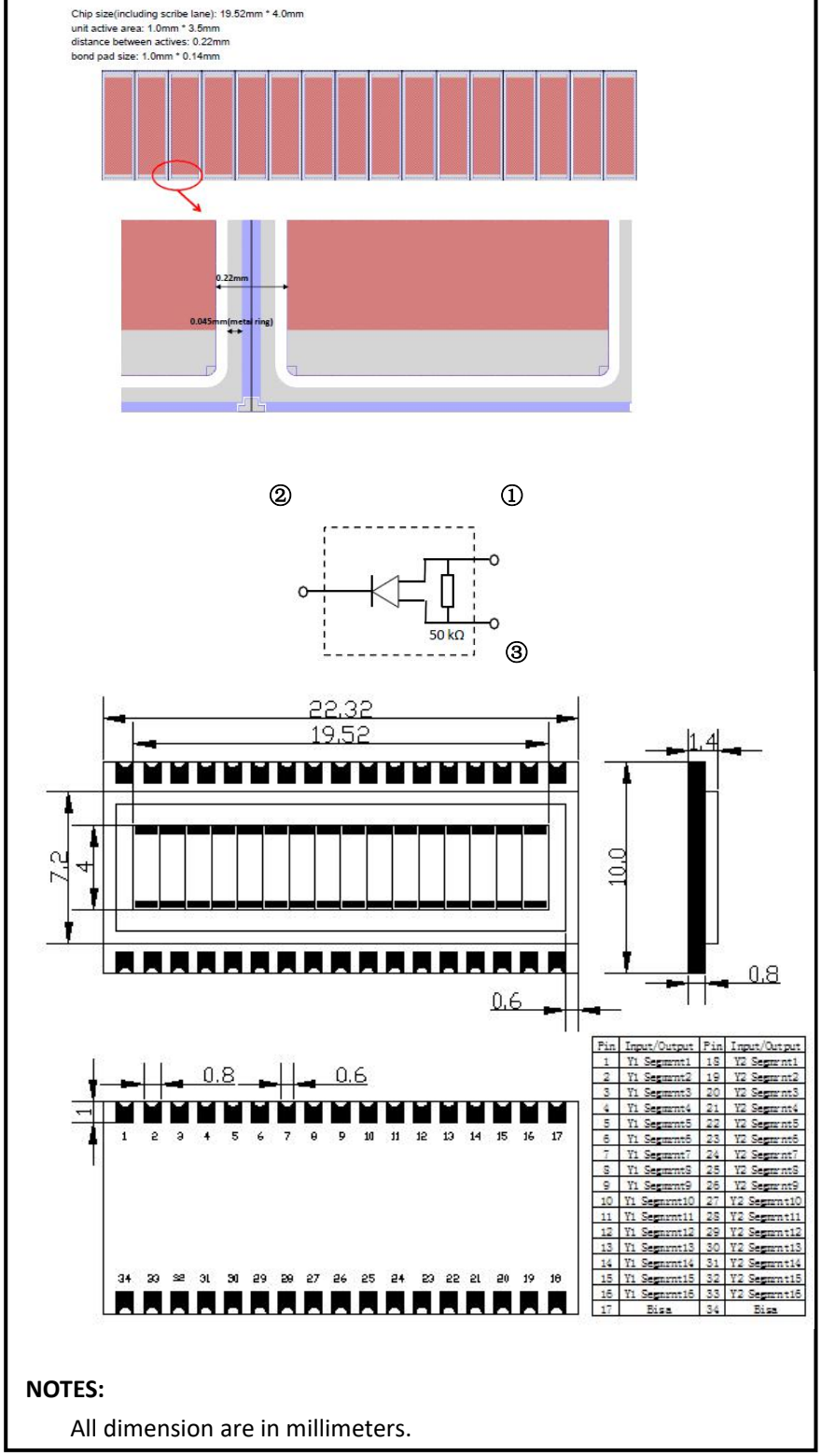
* High speed response
* Wide angular response
* Operating temperature is from -40 to +80℃
*Storage temperature is from -40 to +120℃

General Ratings

* Chip active area: 3.5*1.0mm

Applications

*Proximity sensor
* Laser beam focusing



Pin	Input/Output	Pin	Input/Output
1	Y1 Segment1	18	Y2 Segment1
2	Y1 Segment2	19	Y2 Segment2
3	Y1 Segment3	20	Y2 Segment3
4	Y1 Segment4	21	Y2 Segment4
5	Y1 Segment5	22	Y2 Segment5
6	Y1 Segment6	23	Y2 Segment6
7	Y1 Segment7	24	Y2 Segment7
8	Y1 Segment8	25	Y2 Segment8
9	Y1 Segment9	26	Y2 Segment9
10	Y1 Segment10	27	Y2 Segment10
11	Y1 Segment11	28	Y2 Segment11
12	Y1 Segment12	29	Y2 Segment12
13	Y1 Segment13	30	Y2 Segment13
14	Y1 Segment14	31	Y2 Segment14
15	Y1 Segment15	32	Y2 Segment15
16	Y1 Segment16	33	Y2 Segment16
17	Bias	34	Bias

NOTES:

All dimension are in millimeters.

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Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Light Current	I_o	Ev=1000lx VR=5V	30	45		μA
Isc Temperature Coefficient	TC Isc	2856k		0.18		%/℃
Reverse Voltage	VR	IR=10nA		30		V
Voc Temperature Coefficient	TC Voc	2856k		-2.2		mV/℃
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=1V f=1MHz		10		pF
		V_R=10V f=1MHz		7		
Spectral Application Range	λ_{range}		400		1100	nm
Spectral Response-Peak	λ_p			940		nm
Angular Resp 50% Resp Pt	$\theta_{1/2}$			±60		Degrees
Interelectrode resitance	Rs	Ev=0lx	30	50	70	kΩ
Noise limited resolution	Res.	λ=635nm, Po=0.5uW, Spot size= Φ0.5mm		0.05		um
Position detection error	Pe	λ=635nm, Po=0.5uW, Spot size= Φ0.5mm		±0.2	±1.0	%

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

■ Spectral response