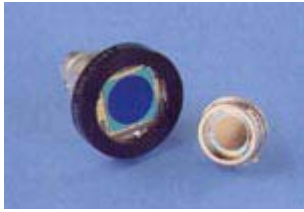


# General Purpose Silicon Sensors (Series 0)



Series 0 photodiodes are designed for operation at up to 30V reverse bias voltage for applications where low capacitance and high speed are important. These detectors are tailored for peak responsivity in the 780-950 nm range but are successfully used for pulsed applications throughout the spectral range from 430-1064 nm.

## Electrical / Optical Specifications

Characteristics measured at 22°C (±2) ambient, and a reverse bias of 30 volts, unless otherwise stated.

Type No.	Active Area		Responsivity A/W λ = 900 nm		Dark Current nA		NEP WHz <sup>-1/2</sup> λ = 900 nm Typ.	Capacitance pF		Risetime ns λ = 900 nm RL = 50 Ω Typ.	Package
	mm <sup>2</sup>	mm	Min	Typ.	Max.	Typ.		V <sub>r</sub> = 0 V Typ.	V <sub>r</sub> = 30V Max		
OSD1-0	1	1.13 dia	0.47	0.54	3	1	4.5 × 10 <sup>-14</sup>	12	3	10	1
OSD5-0	5	2.52 dia	0.47	0.54	10	5	1.0 × 10 <sup>-13</sup>	50	8	8	3
OSD15-0	15	3.8 × 3.8	0.47	0.54	15	8	1.3 × 10 <sup>-13</sup>	150	20	9	3
OSD35-0	35	5.9 × 5.9	0.47	0.54	30	12	1.6 × 10 <sup>-13</sup>	350	46	12	8
OSD50-0	50	7.98 dia	0.47	0.54	50	15	1.7 × 10 <sup>-13</sup>	500	65	13	9
OSD100-0	100	11.3 dia	0.47	0.54	70	30	2.5 × 10 <sup>-13</sup>	1000	130	19	13

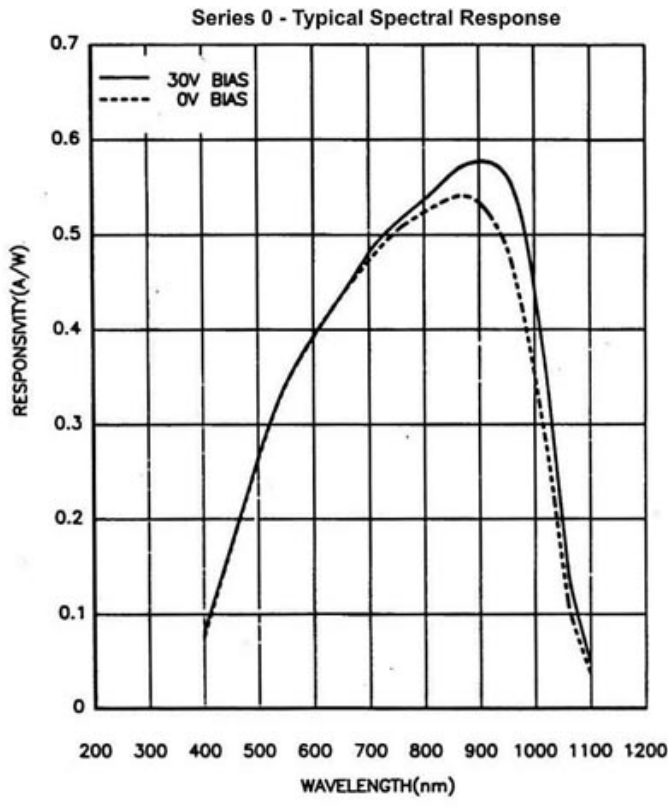
Type No.	Active Area (Total)			Responsivity A/W λ = 900 nm		Dark Current nA		NEP WHz <sup>-1/2</sup> λ = 900 nm Typ.	Capacitance pF		Risetime ns λ = 900 nm RL = 50 ω Typ.	Crosstalk % λ = 900 nm		Package
	mm <sup>2</sup>	mm	Sep. mm	Min.	Typ.	Max.	Typ.		V <sub>r</sub> = 0V Typ.	V <sub>r</sub> = 30V Max.		Max.	Typ.	
Q 7-0	7	2.99 dia	0.2	0.47	0.54	15	4	9.0 × 10 <sup>-14</sup>	20	4	10	5	1	7
QD50-0	50	7.98 dia	0.2	0.47	0.54	30	15	1.3 × 10 <sup>-13</sup>	125	18	9	5	1	10
QD100-0	100	11.3 dia	0.2	0.47	0.54	50	25	2.2 × 10 <sup>-13</sup>	250	30	10	5	1	11

Type No.	No. of Elements	Array Dimensions				Responsivity A/W λ = 900 nm		Dark Current nA		NEP WHz <sup>-1/2</sup> λ = 900 nm Typ.	Capacitance pF		Risetime ns λ = 900 nm RL = 50 Ω Typ.	Package
		Area mm <sup>2</sup>	Width mm	Lgth. mm	Sep. mm	Min.	Typ.	Max.	Typ.		V <sub>r</sub> = 0V Typ.	V <sub>r</sub> = 30V Max.		
LD2A-0	2	1.00	2.00	0.5	0.05	0.47	0.54	5	1	4.5 × 10 <sup>-14</sup>	12	3	15	4
LD2B-0	2	2.02	1.42	1.42	0.45	0.47	0.54	10	2	6.3 × 10 <sup>-14</sup>	22	4	11	4
LD20-0	20	3.6	4.0	0.9	0.05	0.47	0.54	25	4	9.0 × 10 <sup>-14</sup>	37	7	10	16
LD35-0	35	4.42	4.6	0.96	0.03	0.47	0.54	30	5	1.0 × 10 <sup>-13</sup>	45	8	10	17
..... <b>Matrix Arrays</b> (Values given are per element unless otherwise stated).....														
MD25-0	5 × 5	7.99	2.7	1.7	0.1	0.47	0.54	200	4	8.6 × 10 <sup>-14</sup>	92	15	9	18

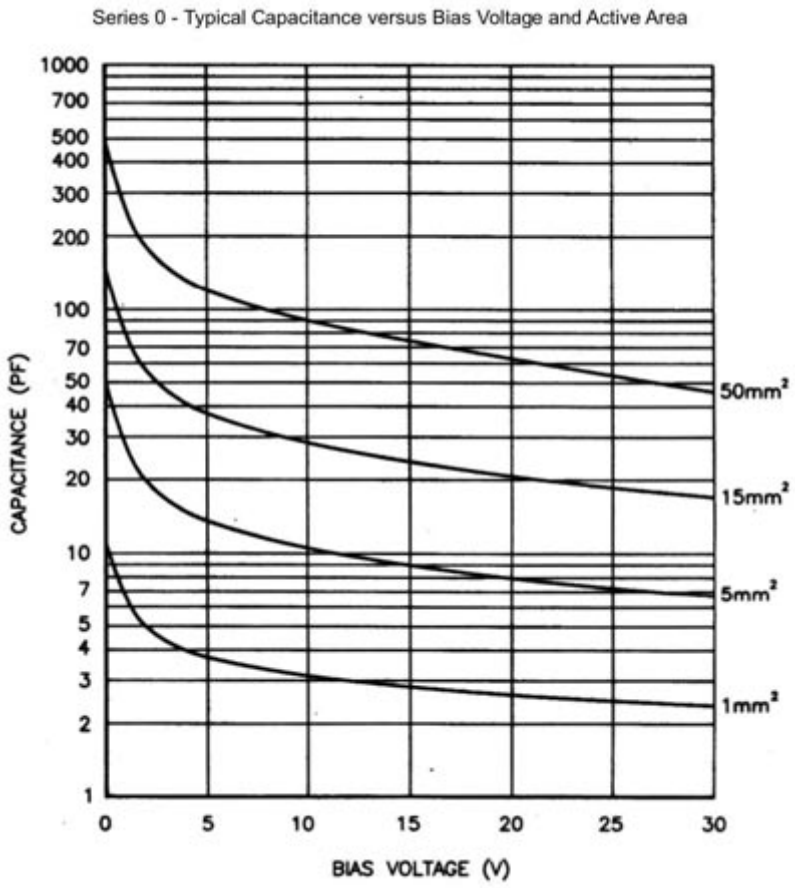
Note: Recommended operating voltage range 0 to 30 volts, for all Series 0 Detectors.

Highlighted items are Centronic standard products generally available from stock

# Series 0 Spectral Response Graph



# Capacitance versus Bias Voltage



Due to our policy of continued development, specifications are subject to change without notice.