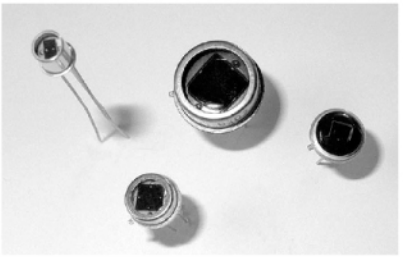
Photo Detectors

Features

- Human Eye Response
- TO Can Packages

Applications

- Photometry / Radiometry
- Medical Instrumentation
- Analytical Chemistry



Series E photodiodes are Blue-enhanced detectors with high quality color-correcting filters. The resulting spectral response approximates that of the human eye. In addition to the Series E photodiodes listed, We can provide other photodiodes in this catalog with a variety of optical filters.

Model Number	Active Area		Responsivity nA Lux^{-1}		Dark Current (nA)		NEP (WHz$^{-1/2}$)	Capacitance (pF)		Shunt Resistance Megaohms*		Reverse Voltage (DC)	Spectral Curve	Temp. Range (℃)		Package Style
	Area (mm^2)	Dimensions (mm)					550nm VR=0							Operating	Storage	
			min.	typ.	max.	typ.	typ.	Vr=0V max.	Vr=12V max.	min.	typ.	max.				
OSD-E Series																
OSD1-E	1	1.0 x 1.0	1	2.2	1	0.2	1.5 x 10^{-14}	35	7	250	1000		1			TO-18
OSD3-E	3	2.5 x 1.2	3	6.6	2	0.5	1.8 x 10^{-14}	80	20	100	700		1			TO-18
OSD5-E	5	2.5 dia.	5	11	2	0.5	1.9 x 10^{-14}	130	35	100	600	15	1	-25 ~ +85	-40 ~ +120	TO-5
OSD15-E	15	3.8 x 3.8	15	33	10	2	5.2 x 10^{-14}	390	80	50	80		1			TO-5
OSD60-E	100	11.3 dia	30	56	30	8	1.2 x 10^{-13}	2500	520	2	10		2			TO-8

Characteristics measured at 22℃ (±2) and a reverse bias of 12 volts unless otherwise stated.
* Shunt Resistance measured at +/- 10mV.

Unit Conversion Table for Illuminance

The Series E photodiodes have been color corrected to provide a phototopic eye response. These devices can be used as low illuminance monitors, i.e. visible light measurement instruments and adjusting brightness of visible display.

Lux lx (lm/m^2)	Phot Ph (lm/cm^2)	Foot-candle fc (lm/ft^2)	Watt per square cm* W/cm^2
1	1.000 x 10^{-4}	9.290 x 10^{-2}	5.0 x 10^{-6}
1.000 x 10^4	1	9.290 x 10^2	9.290 x 10^{-2}
1.076 x 10^1	1.076 x 10^{-3}	1	5.0 x 10^{-5}
2.0 x 10^5	1.0 x 10^1	1.9 x 10^4	1

*Total irradiance (measured value) by the CIE standard light source "A".

CIE Curve vs. E Type Parts