

UV ENHANCED PIN PHOTODIODES

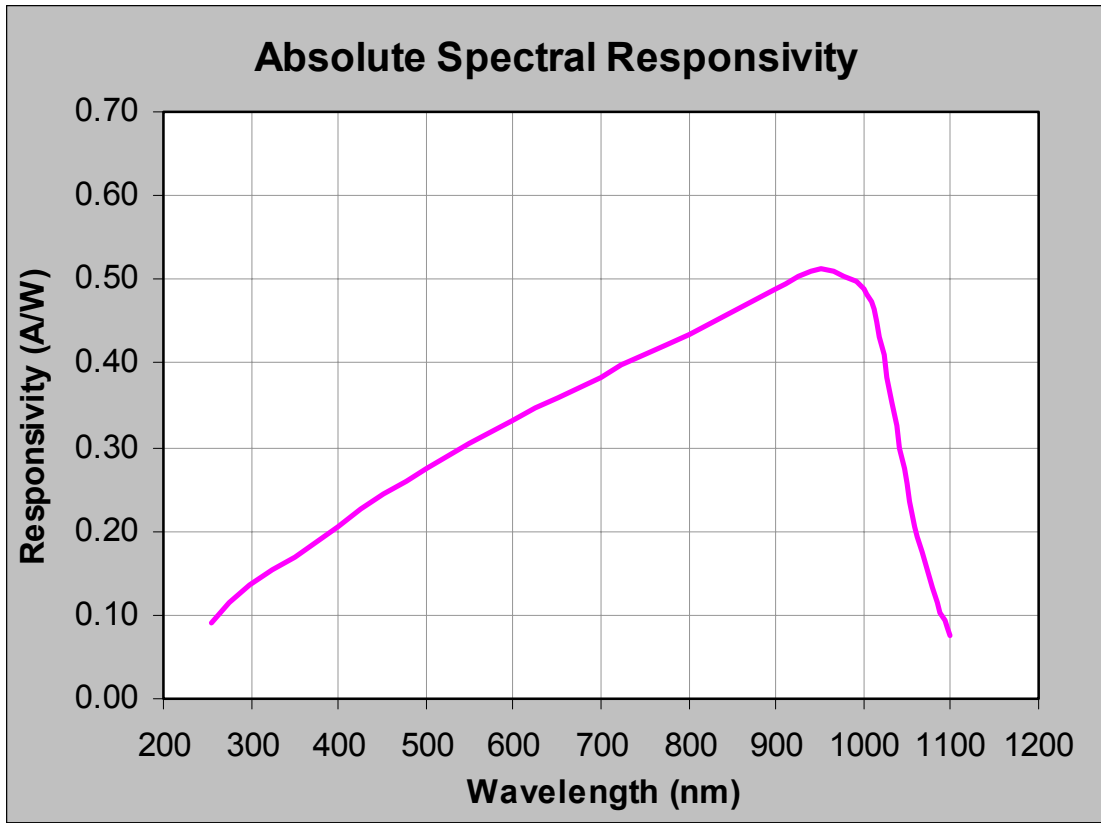
SPECIFICATIONS

Responsivity: 0.10 A/W min., 0.18 A/W typ. @ 365nm

Part Number	Total Area (mm ²)	Active Area (in)	Shunt Resistance ¹ Min. (MΩ)	Dark Current ¹ at 5V		Breakdown Voltage ² at 10μA Typ. (V)	Capacitance ³ Typ.		NEP ⁴ Typ. (W/√Hz)	Max Linear Current ⁵ Typ. (mA)	Response Time ⁶ at 5V Typ. (ns)
				Typ. (nA)	Max. (nA)		at 0V (pF)	at 5V (pF)			
SD 172-13-23-222	15	0.185 x 0.125	105	4.4	19	10	255	75	7.2x10 ⁻¹⁴	1.5	30
SD 200-13-23-242	20.3	0.200 (dia).	77	6.0	30	10	345	102	8.9x10 ⁻¹⁴	2.03	45
SD 290-13-23-242	42.6	0.300 x 0.220	36	12.5	50	10	723	215	1.3x10 ⁻¹³	4.86	70
SD 445-13-23-305	100	0.394 x 0.394	15	30	120	10	1700	500	1.9x10 ⁻¹³	10.0	200

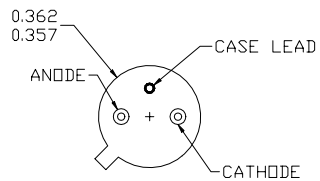
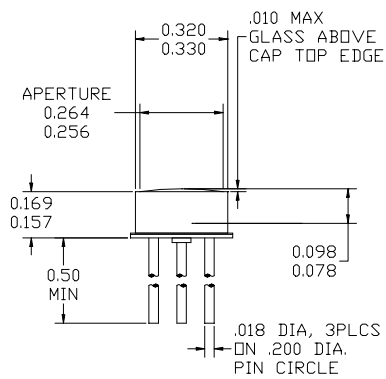
* All values at 23°C

- Dark Current and Shunt Resistance vary with temperature as follows; for T≠23°C, $I_{DT} = I_{D23} * 1.09^{\Delta T}$, $R_{SHT} = R_{SH23} * 0.9^{\Delta T}$, where $\Delta T = (T - 23)$ and I_{D23} and R_{SH23} are values at 23°C.
- Typical values listed. Minimum value shall be 50% of typical.
- Typical values listed. Maximum value shall be 20% higher than the typical.
- Test conditions are $V_B = -10mV$, and 365 nm.
- In photovoltaic mode. Maximum linear current specifies the level at which the output current characteristic deviates more than 10% from the straight line. The short circuit current saturates at approximately 10 times this level.
- Response Time (transition time between 10% and 90% of the output signal amplitude) measured at 670 nm with a 50Ω load. Shorter wavelengths will result in faster rise and fall times.
Storage and Operating Temperature Range for all photodiodes is -40°C to 110°C, except for the SD 445-13-23-305, which is -20°C to 75°C.

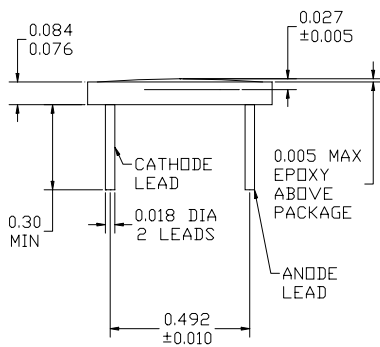
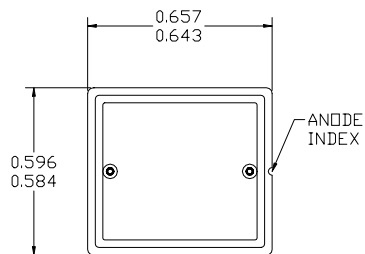


Dimensional Outlines

SD 172-13-23-222



SD 445-13-23-305



SD 200-13-23-242

SD 290-13-23-242

