

GENERAL PURPOSE PIN PHOTODIODES

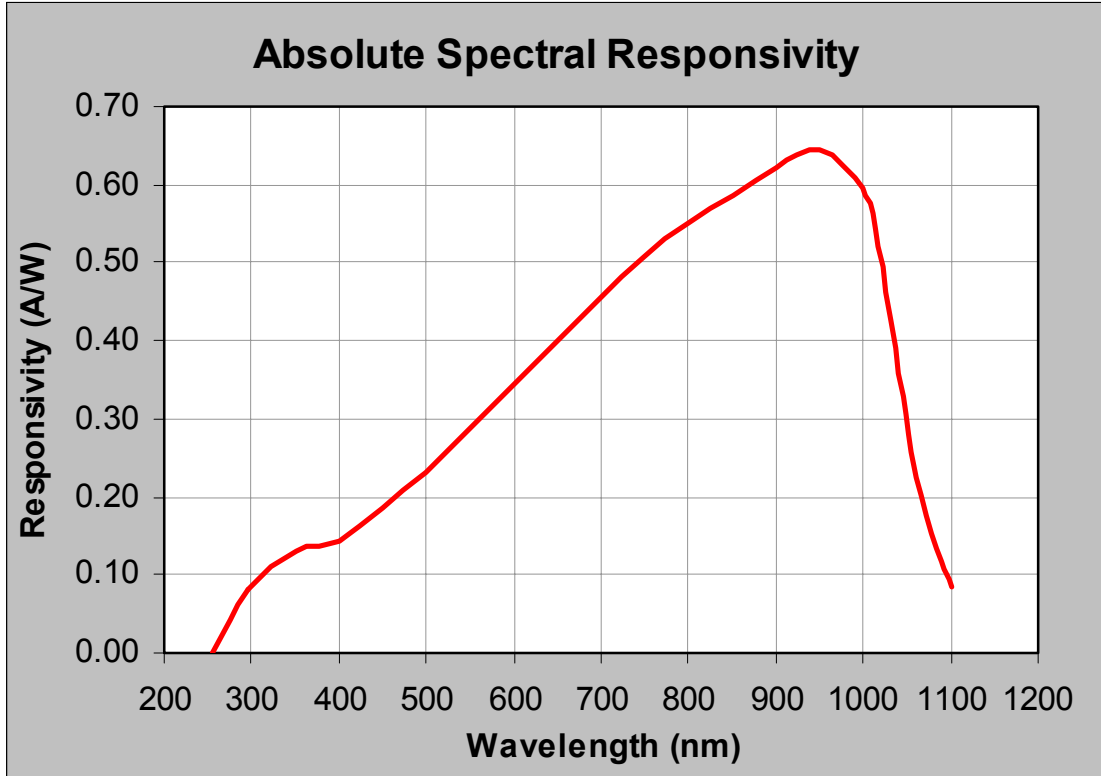
SPECIFICATIONS

Responsivity: 0.32 A/W min., 0.38 A/W typ. @ 632.8nm; 0.50 A/W min., 0.62 A/W typ. @ 900nm

Part Number	Total Area (mm ²)	Active Area (in)	Shunt Resistance ¹ Min. (M Ω)	Dark Current ¹ at 5V		Breakdown Voltage ² at 10 μ A Typ. (V)	Capacitance ³ Typ.		NEP ⁴ Typ. (W/ \sqrt Hz)	Max Linear Current ⁵ Typ. (mA)	Response Time ⁶ at 10V Typ. (ns)
				Typ. (nA)	Max. (nA)		at 0V (pF)	at 10V (pF)			
SD 057-11-21-015	1.67	0.051 x 0.051	800	0.5	2.0	50	28	6	2.8x10 ⁻¹⁴	0.17	7
SD 057-11-21-011	1.67	0.051 x 0.051	800	0.5	2.0	50	28	6	2.8x10 ⁻¹⁴	0.17	7
SD 076-11-21-011 isolated -211	2.91	0.105 x 0.043	450	0.9	3.5	50	50	10	3.2x10 ⁻¹⁴	0.29	8
SD 100-11-21-021 isolated -221	5.1	0.100 (dia.)	300	1.6	6.4	50	87	18	4.0x10 ⁻¹⁴	0.51	10
SD 125-11-21-021	7.95	0.111 x 0.111	180	2.5	10.0	50	135	28	5.2x10 ⁻¹⁴	0.80	15
SD 172-11-21-021 isolated -221	15.4	0.185 x 0.125	100	5.0	20.0	50	255	53	7.0x10 ⁻¹⁴	1.5	30
SD 200-11-21-041 isolated -241	20.3	0.200 (dia.)	70	6.5	26.0	50	345	71	8.6x10 ⁻¹⁴	2.03	32
SD 290-11-21-041 isolated -241	42.6	0.300 x 0.220	35	13.0	52.0	50	725	150	1.2x10 ⁻¹³	4.26	70
SD 445-11-21-305	100	0.394 x 0.394	15	30.0	120	50	1700	350	2.0x10 ⁻¹³	10.0	140

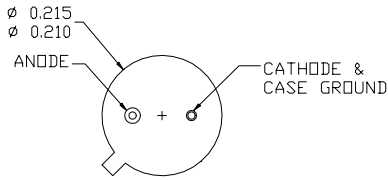
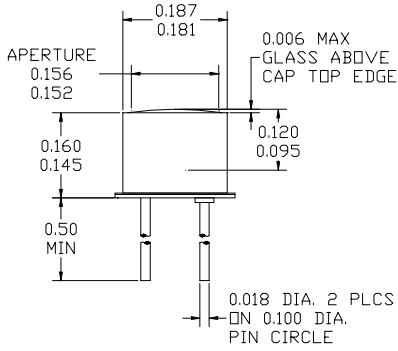
* All values at 23°C

- Dark Current and Shunt Resistance vary with temperature as follows; for T \neq 23°C, I_{DT} = I_{D23} * 1.09 ^{Δ T}, R_{SHT} = R_{SH23} * 0.9 ^{Δ T}, where Δ 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 = -5V, and 950 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 50 Ω 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 057-11-21-015 and SD 445-11-21-305, which is -20°C to 75°C.

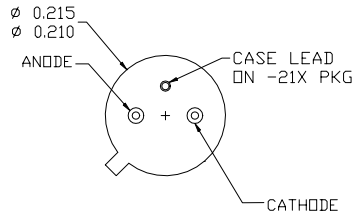
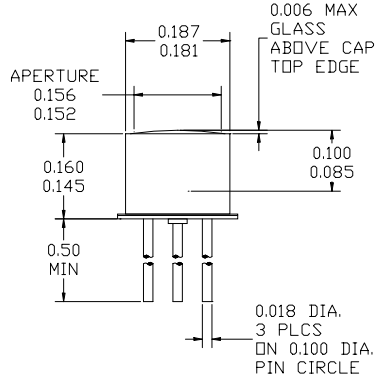


Dimensional Outlines

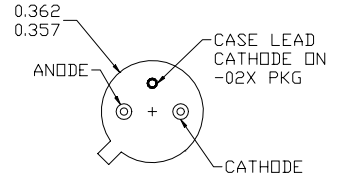
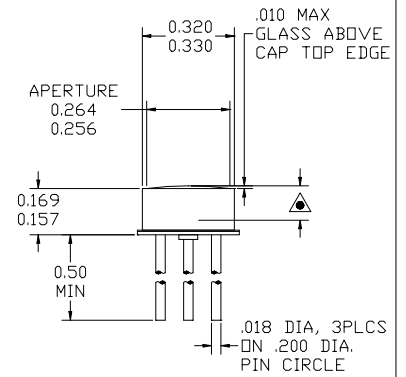
SD 057-11-21-011
SD 076-11-21-011



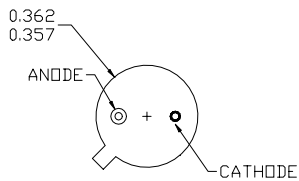
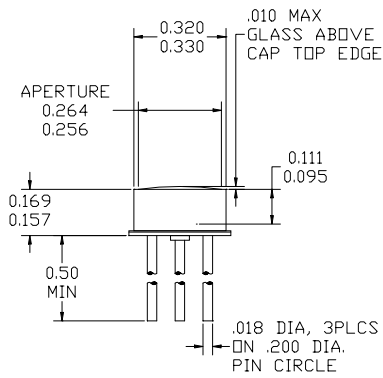
SD 076-11-21-211



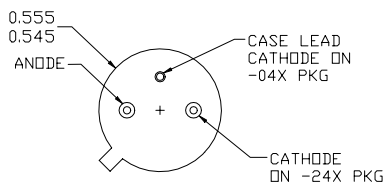
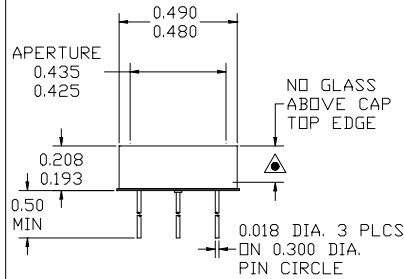
SD 100-11-21-021 .111
.095
SD 100-11-21-221 .098
.078
SD 172-11-21-021 .111
.095
SD 172-11-21-221 .098
.078



SD 125-11-21-021



SD 200-11-21-041 .136
.095
SD 200-11-21-241 .111
.115
SD 290-11-21-041 .136
.095
SD 290-11-21-241 .111
.115



SD 445-11-21-305

