

BLUE ENHANCED PIN PHOTODIODES

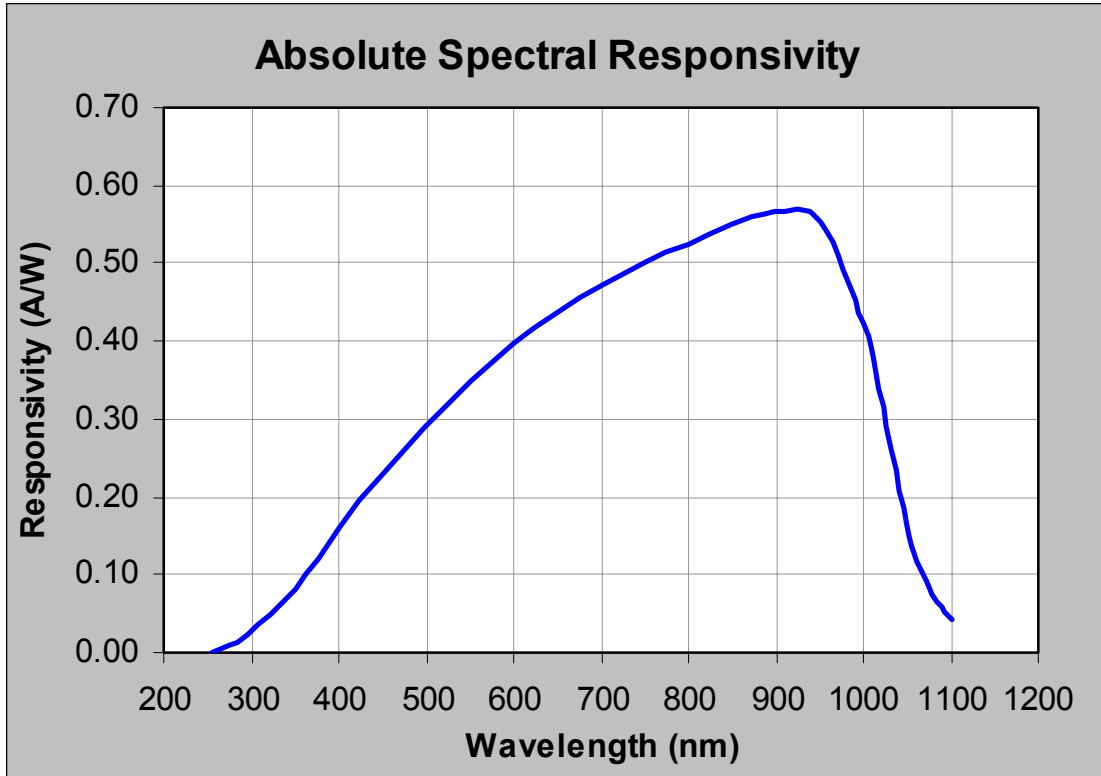
SPECIFICATIONS

Responsivity: 0.20 A/W min., 0.23 A/W typ. @ 450nm

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 041-12-22-011 isolated -211	0.85	0.040 x 0.033	1500	0.3	1.0	50	14	5	1.7x10 ⁻¹⁴	0.09	5
SD 076-12-22-011 isolated -211	2.91	0.105 x 0.043	450	0.9	3.5	50	50	15	3.6x10 ⁻¹⁴	0.29	11
SD 100-12-22-021 isolated -221	5.1	0.100 (dia.)	300	1.6	6.4	50	87	26	4.2x10 ⁻¹⁴	0.51	15
SD 172-12-22-021 isolated -221	15	0.185 x 0.125	100	5.0	20	50	255	75	6.4x10 ⁻¹⁴	1.5	30
SD 200-12-22-041 isolated -241	20.3	0.200 (dia.)	70	6.5	26	50	345	102	8.9x10 ⁻¹⁴	2.03	45
SD 290-12-22-041 isolated -241	42.6	0.300 x 0.220	35	13	52	50	725	213	1.2x10 ⁻¹³	4.26	70
SD 445-12-22-305	100	0.394 x 0.394	15	30	120	50	1700	500	1.9x10 ⁻¹³	10.0	200

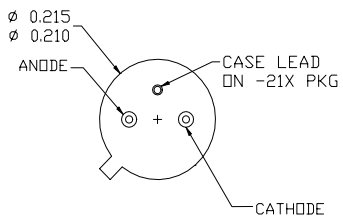
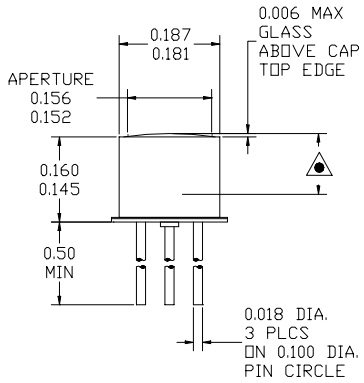
* All values at 23°C

- 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 minimum shunt resistance and 450 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 445-12-22-305, which is -20°C to 75°C.

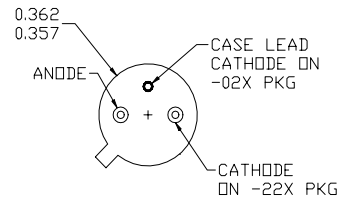
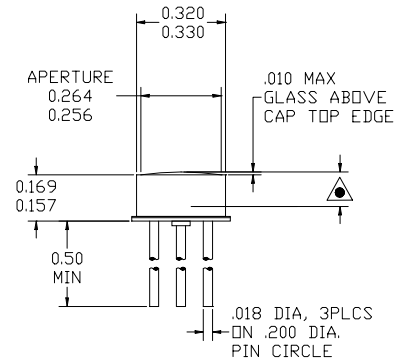


Dimensional Outlines

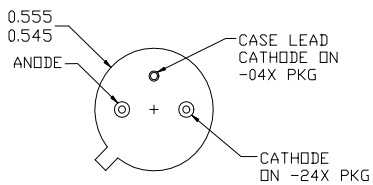
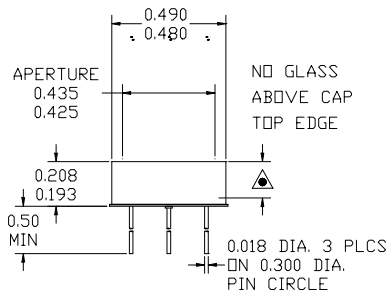
SD 041-12-22-011	.120 .095
SD 041-12-22-211	.100 .085
SD 076-12-22-011	.120 .095
SD 076-12-22-211	.100 .085



SD 100-12-22-021	.111 .095
SD 100-12-22-221	.098 .078
SD 172-12-22-021	.111 .095
SD 172-12-22-221	.098 .078



SD 200-12-22-041	.136 .095
SD 200-12-22-241	.111 .115
SD 290-12-22-041	.136 .095
SD 290-12-22-241	.111 .115



SD 445-12-22-305

