

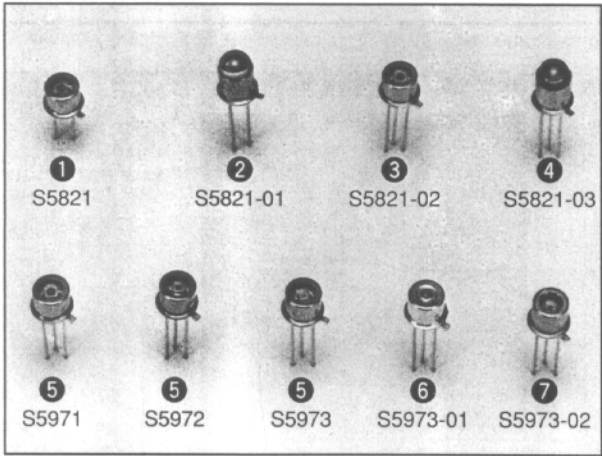
Si PIN Photodiodes (1)

Type No.	Dimensional Outline (P.46)/ Window Material *1	Package	Active Area Size (mm)	Effective Active Area (mm ²)	Spectral Response Range λ (nm)	Peak Sensitivity Wavelength λ_p (nm)	Photo Sensitivity S (A/W)				Short Circuit Current I _{sc} 100 lx (μ A)
							λ_p	660 nm	780 nm	830 nm	
S5821	①/K	TO-18	ϕ 1.2	1.1	320 to 1100	960	0.6	0.45	0.52	0.55	1.1
S5821-01	③/L										12
S5821-02	⑤/K										1.1
S5821-03	④/L										12
S5971	⑤/K		ϕ 0.8	0.5	320 to 1060	900	0.64	0.44	0.55	0.6	1.0
S5972											0.57
S5973			ϕ 0.4	0.12	320 to 1000	760	0.52		0.51	0.47	0.09
S5973-01											⑥/L
S5973-02	⑦/K					0.45	0.32 *2	0.42	0.37	0.06	

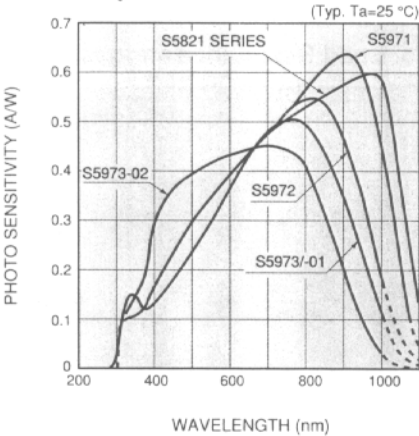
*1: Window material, K: borosilicate glass, L: lens type borosilicate glass

*2: $\lambda=410$ nm

NEW

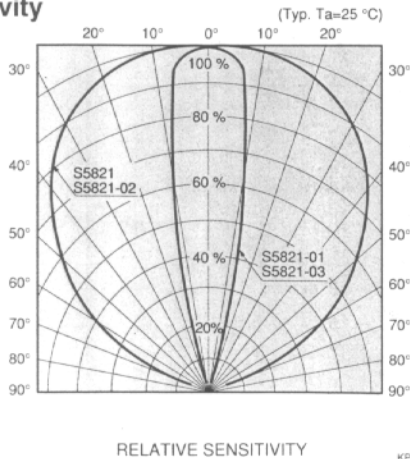


● Spectral Response



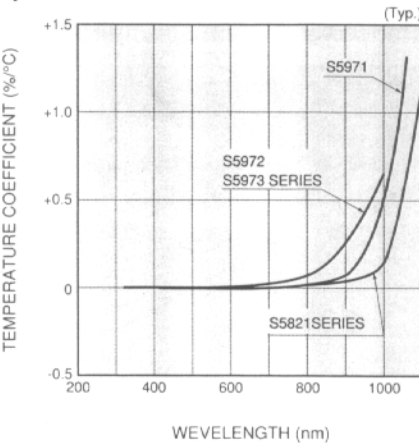
KPINB0055EC

● Directivity



KPINB0091EA

● Temperature Characteristics for Photo Sensitivity



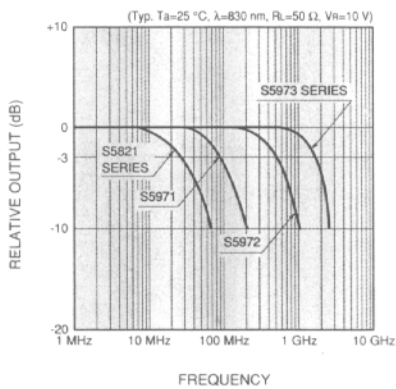
KPINB0059ED

(Unless otherwise noted, Typ. Ta=25 °C)

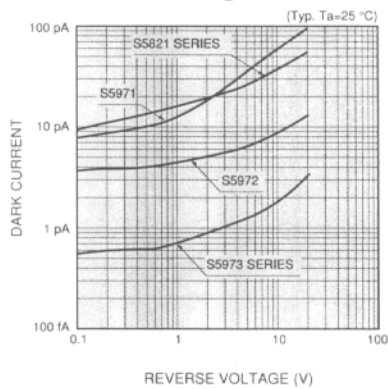
Dark Current I _D V _R =10 V (nA)		Temperature Coefficient of I _D (times/°C)	Cut-off Frequency f _c V _R =10 V (MHz)	Terminal Capacitance C _t V _R =10 V f=1 MHz (pF)	NEP (W/Hz ^{1/2})	Absolute Maximum Ratings				Type No.
						Reverse Voltage V _R Max.	Power Dissipation P	Operating Temperature T _{opr}	Storage Temperature T _{stg}	
Typ.	Max.					(V)	(mW)	(°C)	(°C)	
0.05	2	1.15	25	3	6.7×10^{-15}	20	50	-40 to +100	-55 to +125	S5821
										S5821-01
										S5821-02
										S5821-03
0.07	1		100	3	7.4×10^{-15}					S5971
0.01	0.5		500		3.1×10^{-15}					S5972
0.002	0.1		1.5 (GHz)	1.5	1.5×10^{-15}					S5973
										S5973-01
0.01^{*3}	0.1^{*3}		1.2 (GHz)^{*3}	1.6^{*3}	3.1×10^{-15}					S5973-02

*3: V_R=3.3 V

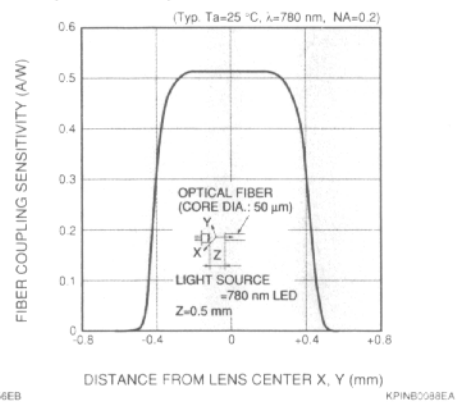
● Frequency Response



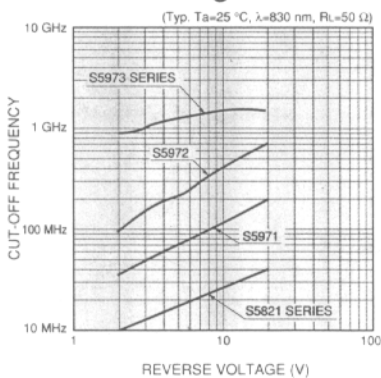
● Dark Current vs. Reverse Voltage



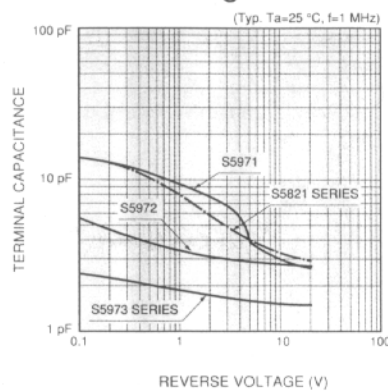
● Fiber Coupling Characteristic (S5973-01) X and Y Directions



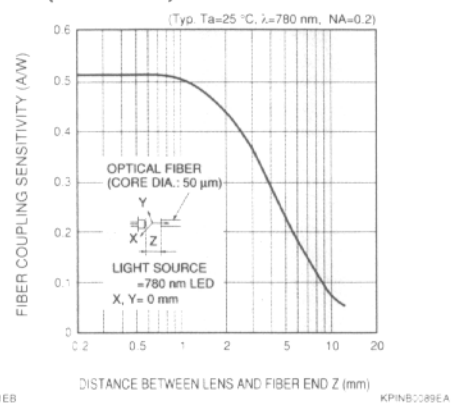
● Cut-off Frequency vs. Reverse Voltage



● Terminal Capacitance vs. Reverse Voltage

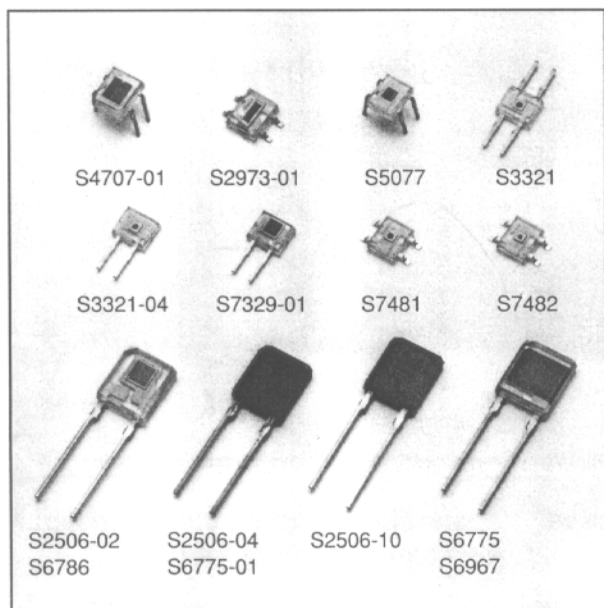


● Fiber Coupling Characteristic (S5973-01) Z Direction

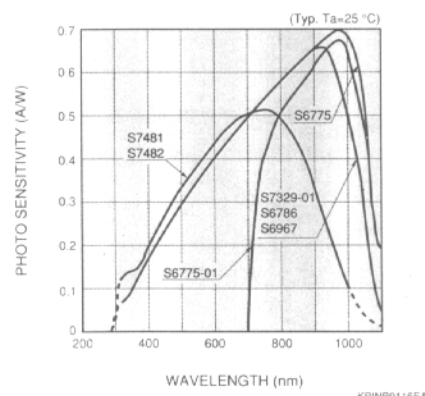
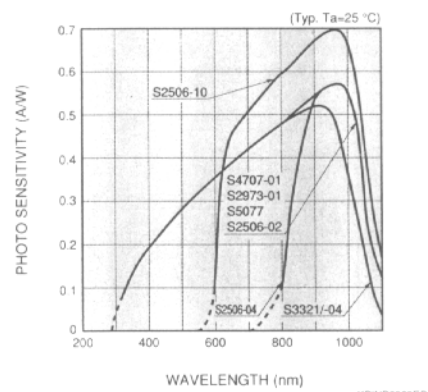


Si PIN Photodiodes (2)

Type No.	Dimensional	Package	Active Area	Effective	Spectral	Peak	Photo Sensitivity S (A/W)				Short Circuit Current I _{sc} 100 lx (μA)	
	Outline (P.52, 53)		Size	Active Area	Response Range λ (nm)	Sensitivity Wavelength λ _p (nm)	λ _p	660 nm	780 nm	830 nm		
S4707-01	53	Plastic	2.4 × 2.8	6.6	320 to 1100	960	0.56	0.4	0.48	0.5	6.6	
S2973-01	54		1 × 3	3							3.3	
S5077	52		1.1 × 1.1	1.2							1.65	
S3321	50		φ0.8	0.5	320 to 1060	900	0.53				0.7	
NEW S3321-04	58										0.75	
NEW S7329-01	59		2 × 2	4	320 to 1100	960	0.65	0.45	0.55	0.6	4.2	
S2506-02	60		2.77 × 2.77	7.7			320 to 1100	0.56	0.4	0.48	0.5	7.3
S2506-04							800 to 1100		—	—	0.25	4.1
NEW S2506-10							600 to 1100		0.7			7.8
S6786					320 to 1060	900	0.65	0.45	0.55	0.6	7.5	
S6775			5.5 × 4.8	26	320 to 1100	960	0.7				30	
S6775-01					700 to 1100		0.68	—	0.48	0.54	21	
S6967					320 to 1060	900	0.65	0.45	0.55	0.6	26	
NEW S7481	55		φ0.8	0.5	320 to 1000	760	0.5	0.48	0.5	0.45	0.48	
NEW S7482			φ0.6	0.28							0.25	



● Spectral Response



(Unless otherwise noted, Typ. Ta=25 °C)

Dark Current I _D (nA)		Temperature Coefficient of I _D T _{CD}	Cut-off Frequency f _c	Terminal Capacitance C _t f=1 MHz	NEP	Absolute Maximum Ratings				Type No.						
						Reverse Voltage V _R Max.	Power Dissipation P	Operating Temperature T _{opr}	Storage Temperature T _{stg}							
Typ.	Max.	(times/°C)	(MHz)	(pF)	(W/Hz ^{1/2})	(V)	(mW)	(°C)	(°C)							
0.08 ^{*2}	5 ^{*2}	1.15	20 ^{*2}	14 ^{*2}	9.0 × 10 ^{-15*2}	20	100	-25 to +85	-40 to +100	S4707-01						
0.01 ^{*2}	1 ^{*2}			25 ^{*2}	3.2 × 10 ^{-15*2}		S2973-01									
0.004 ^{*2}	2 ^{*2}		40 ^{*2}	10 ^{*2}	2.0 × 10 ^{-15*2}		50			S5077						
0.025 ^{*3}	1 ^{*3}		80 ^{*3}	3 ^{*3}	5.3 × 10 ^{-15*3}					S3321						
0.1 ^{*3}			60 ^{*3}	12 ^{*3}	8.7 × 10 ^{-15*3}					S3321-04						
0.1 ^{*1}	10 ^{*1}		25 ^{*1}	15 ^{*1}	1.0 × 10 ^{-14*1}	35	150			-25 to +85	-40 to +100	S2506-02				
					8.1 × 10 ^{-15*1}							S2506-04				
0.3 ^{*2}	5 ^{*2}		60 ^{*2}	15 ^{*2}	1.5 × 10 ^{-14*2}		50					S2506-10				
0.5 ^{*2}	10 ^{*2}		15 ^{*2}	40 ^{*2}	1.8 × 10 ^{-14*2}							S6786				
0.5 ^{*2}	5 ^{*2}		50 ^{*2}	50 ^{*2}	1.9 × 10 ^{-14*2}							S6775				
0.01 ^{*4}	0.3 ^{*4}		500 ^{*4}	6 ^{*4}	2.0 × 10 ^{-14*2}	20						S6775-01				
			600 ^{*4}	3 ^{*4}	3.6 × 10 ^{-15*4}							S6967				
												S7481				
												S7482				

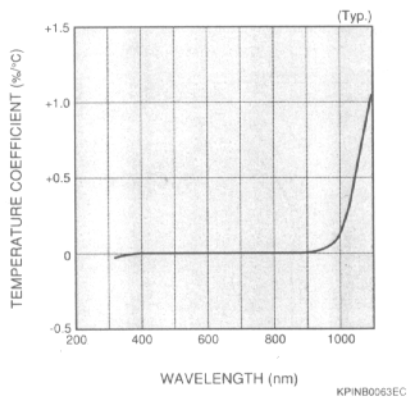
*1: $V_R=12$ V

*2: $V_R=10$ V

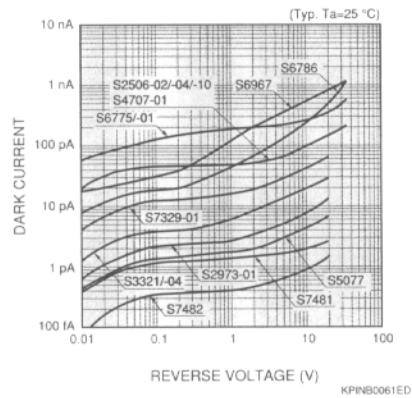
*3: $V_R=5$ V

*4: $V_R=2.5$ V

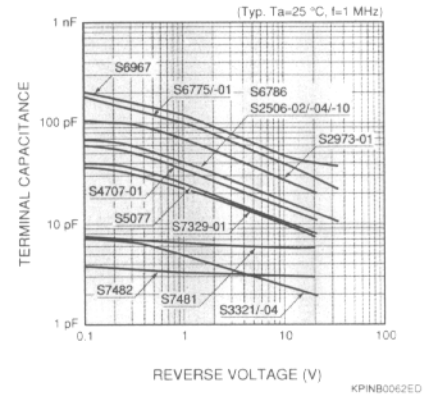
● Temperature Characteristic for Photo Sensitivity (S2506-02)



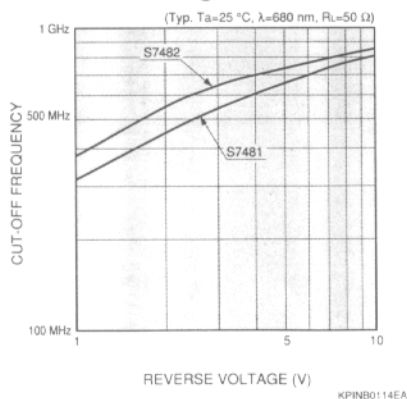
● Dark Current vs. Reverse Voltage



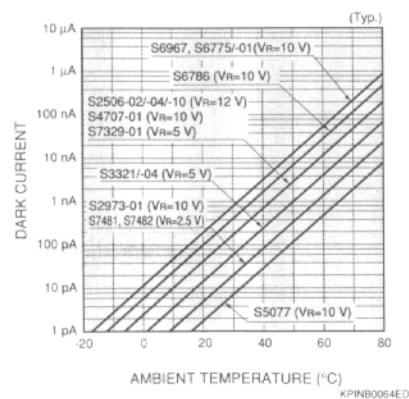
● Terminal Capacitance vs. Reverse Voltage



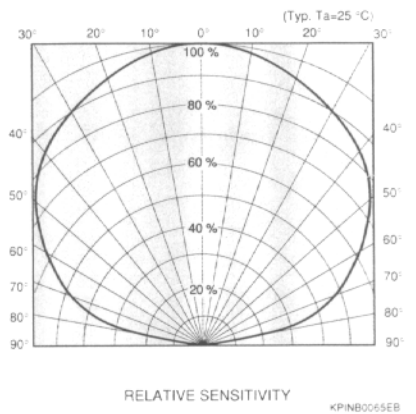
● Cut-off Frequency vs. Reverse Voltage



● Dark Current vs. Ambient Temperature



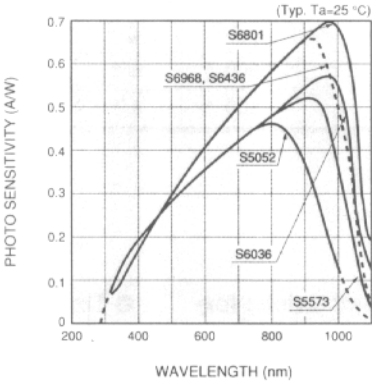
● Directivity (S2506-02)



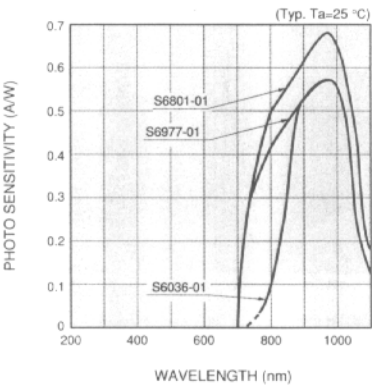
Si PIN Photodiodes (3)

Type No.	Dimensional	Package	Active Area Size (mm)	Effective Active Area (mm ²)	Spectral Response Range λ (nm)	Peak Sensitivity Wavelength λp (nm)	Photo Sensitivity S (A/W)				Short Circuit Current Isc 100 lx (μA)
	Outline (P.53, 54)						λp	660 nm	780 nm	830 nm	
S5052	㉑	Plastic with lens	φ3.0	7.0	320 to 1000	800	0.46	0.4	0.45	0.45	2.3
S5573					320 to 1060	900	0.53		0.46	0.5	4.5
S6977-01					700 to 1100		—		0.37	0.45	3
S6036	㉒		φ7.0	38.4	320 to 1100	960	0.56	0.4	0.48	0.5	30
S6036-01					800 to 1100			—	—	0.25	17
S6436					320 to 1060			900	0.65	0.45	0.55
S6801	320 to 1100		960	0.7	120						
S6801-01	㉓			φ14.0	153.9	700 to 1100	0.68	—	0.48	0.54	85
S6968			320 to 1060			900	0.65	0.45	0.55	0.6	104

● Spectral Response

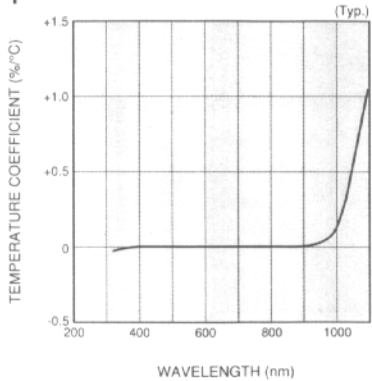


KPINB0098EB

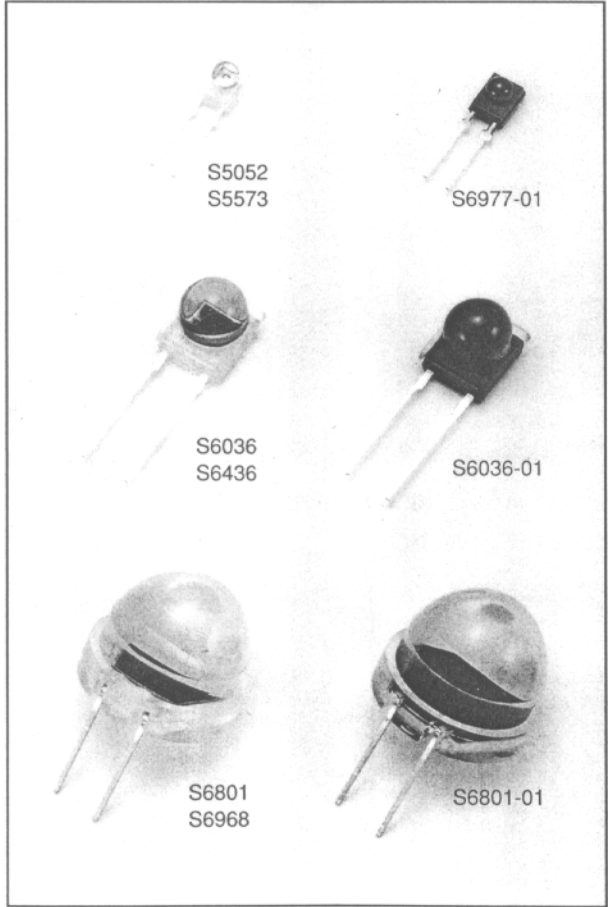


KPINB0117EA

● Temperature Characteristic for Photo Sensitivity (S6036)



KPINB0099EA



(Unless otherwise noted, Typ. Ta=25 °C)

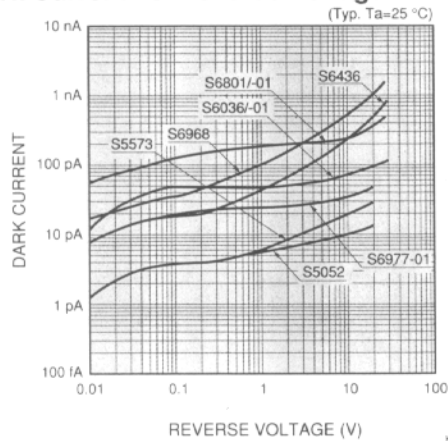
Dark Current I _D (nA)		Temperature Coefficient of I _D T _{CD} (times/°C)	Cut-off Frequency f _c (MHz)	Terminal Capacitance C _t f=1 MHz (pF)	NEP (W/Hz ^{1/2})	Absolute Maximum Ratings				Type No.
						Reverse Voltage V _R Max. (V)	Power Dissipation P (mW)	Operating Temperature T _{opr} (°C)	Storage Temperature T _{stg} (°C)	
Typ.	Max.									
0.02 ^{*3}	0.3 ^{*3}	1.15	200 ^{*3}	4 ^{*3}	5.5 × 10 ^{-15*}	20	50	-25 to +85	-40 to +100	S5052
0.025 ^{*3}	1 ^{*3}		60 ^{*3}	3 ^{*3}	5.3 × 10 ^{-15*}					S5573
0.05 ^{*3}	2 ^{*3}		20 ^{*3}	2.5 ^{*3}	7.2 × 10 ^{-15*}					S6977-01
0.1 ^{*1}	10 ^{*1}		25 ^{*1}	15 ^{*1}	1.0 × 10 ^{-14*}	35	150			S6036
0.3 ^{*2}	5 ^{*2}		60 ^{*2}	15 ^{*2}	1.5 × 10 ^{-14*}					S6036-01
0.5 ^{*2}	10 ^{*2}		15 ^{*2}	40 ^{*2}	1.8 × 10 ^{-14*}		50			S6436
0.5 ^{*2}	5 ^{*2}				50 ^{*2}					50 ^{*2}
					2.0 × 10 ^{-14*}					S6801-01
										S6968

*1: V_R=12 V

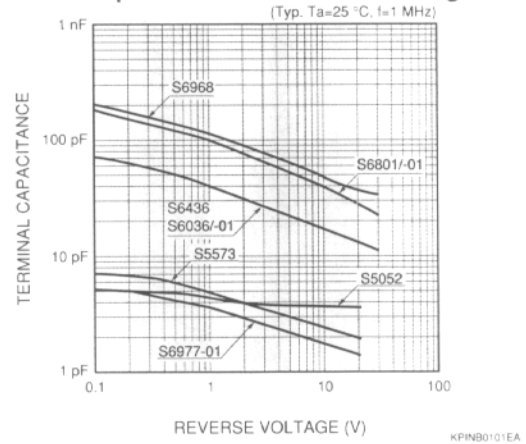
*2: V_R=10 V

*3: V_R=5 V

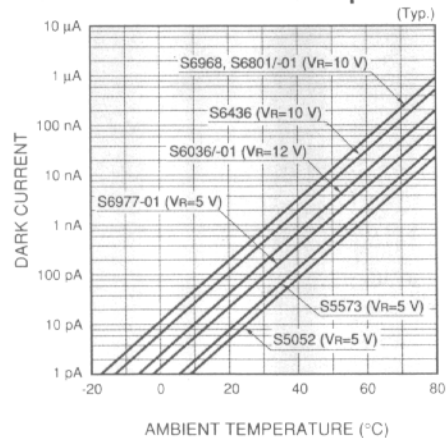
● Dark Current vs. Reverse Voltage



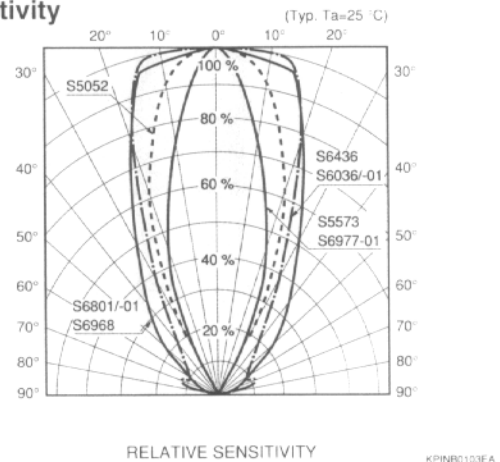
● Terminal Capacitance vs. Reverse Voltage



● Dark Current vs. Ambient Temperature



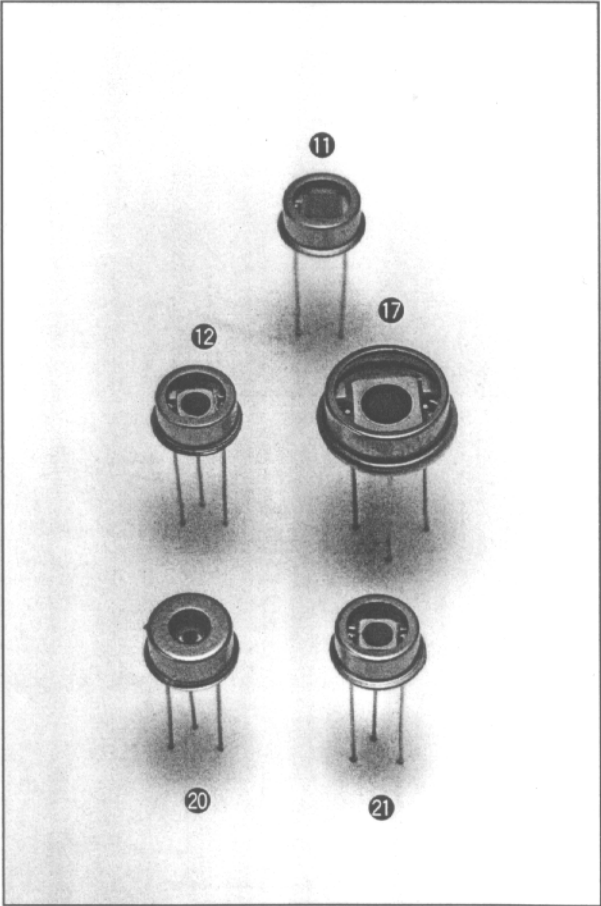
● Directivity



Si PIN Photodiodes (4)

Type No.	Dimensional Outline (P.47, 48)/ Window Material *1	Package	Active	Effective	Spectral Response Range λ (nm)	Peak Sensitivity Wavelength λ_p (nm)	Photo Sensitivity S (A/W)				Short Circuit Current I_{sc} 100 lx (μ A)
			Area Size (mm)	Active Area (mm ²)			λ_p	660 nm	780 nm	830 nm	
S1223	⑪/K	TO-5	2.4 × 2.8	6.6	320 to 1100	960	0.6	0.45	0.52	0.54	6.3
S1223-01			3.6 × 3.6	13							13
S3071	⑰/K	TO-8	φ5.0	19.6	320 to 1060	920	0.6	0.47	0.54	0.56	17
S3072	⑫/K	TO-5	φ3.0	7.0							6.5
S3883	⑳/K	TO-5	φ1.5	1.7	320 to 1000	840	0.6	0.45	0.58	0.6	1.4
S3399	㉑/K		φ3.0	7.0							5.6

*1: Window material, K: borosilicate glass

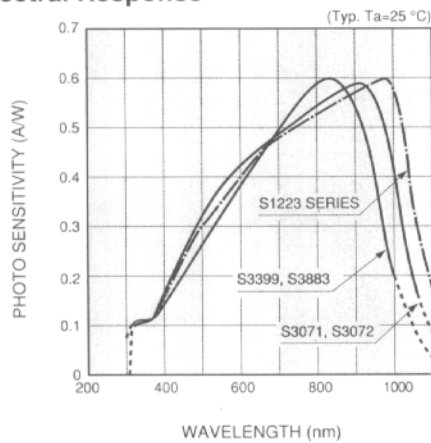


(Unless otherwise noted, Typ. Ta=25 °C)

Dark Current I _D (nA)		Temperature Coefficient of I _D T _{AD}	Cut-off Frequency f _c	Terminal Capacitance C _t f=1 MHz	NEP	Absolute Maximum Ratings				Type No.
						Reverse Voltage V _R Max.	Power Dissipation P	Operating Temperature T _{opr}	Storage Temperature T _{stg}	
Typ.	Max.	(times/°C)	(MHz)	(pF)	(W/Hz ^{1/2})	(V)	(mW)	(°C)	(°C)	
0.1 ^{*2}	10 ^{*2}	1.15	30 ^{*2}	10 ^{*2}	9.4 × 10 ⁻¹⁵ ^{*2}	30	100	-40 to +100	-55 to +125	S1223
0.2 ^{*2}	10 ^{*2}		20 ^{*2}	20 ^{*2}	1.3 × 10 ⁻¹⁴ ^{*2}					S1223-01
0.5 ^{*3}	10 ^{*3}	1.15	40 ^{*3}	18 ^{*3}	2.1 × 10 ⁻¹⁴ ^{*3}	50	50			S3071
0.3 ^{*3}	10 ^{*3}		45 ^{*3}	7 ^{*3}	1.7 × 10 ⁻¹⁴ ^{*3}					S3072
0.05 ^{*2}	1.0 ^{*2}	1.12	300 ^{*2}	6 ^{*2}	6.7 × 10 ⁻¹⁵ ^{*2}	30	50			S3883
0.1 ^{*4}	1.0 ^{*4}		100 ^{*4}	20 ^{*4}	9.4 × 10 ⁻¹⁵ ^{*4}					S3399

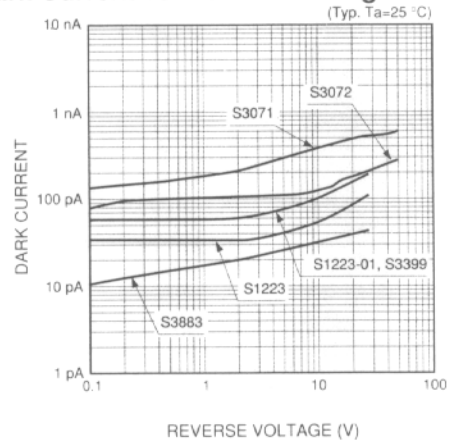
*2: V_R=20 V*3: V_R=24 V*4: V_R=10 V

● Spectral Response



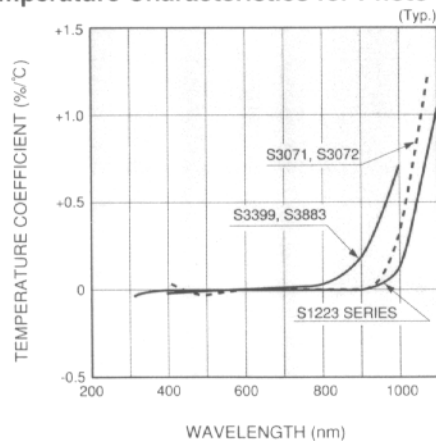
KPINB0066B

● Dark Current vs. Reverse Voltage



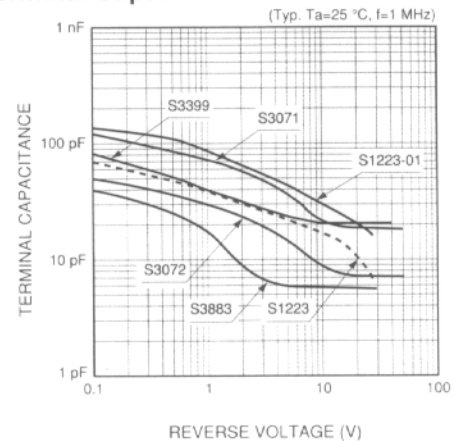
KPINB0067B

● Temperature Characteristics for Photo Sensitivity



KPINB0070EC

● Terminal Capacitance vs. Reverse Voltage



KPINB0071EB

Si PIN Photodiodes (5)

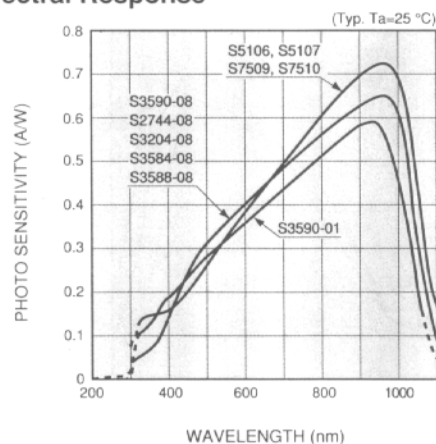
Type No.	Dimensional Outline (P.49, 50)/ Window Material *1	Package	Active Area Size (mm)	Effective Active Area (mm ²)	Spectral Response Range λ (nm)	Peak Sensitivity Wavelength λ_p (nm)	Photo Sensitivity S (A/W)				Short Circuit Current I_{sc} 100 lx (μ A)
							λ_p	660 nm	780 nm	830 nm	
S5106	31/R	Ceramic Chip-carrier	5 × 5	25	320 to 1100	960	0.72	0.45	0.57	0.62	27
S5107	32/R		10 × 10	100							110
NEW S7509	33/R	Ceramic	2 × 10	20	320 to 1100	960	0.72	0.45	0.57	0.62	22
NEW S7510	34/R		6 × 11	66							72
S3590-01	35/R	Ceramic	10 × 10	100	320 to 1060	920	0.56	0.26 *2	0.31 *3	0.51	90
S3590-08			10 × 10	100	320 to 1100	960	0.66	0.30 *2	0.36 *3	0.59	100
S2744-08	36/R		10 × 20	200							200
S3204-08	37/R		18 × 18	324							340
S3584-08	38/R		28 × 28	784							780
S3588-08	39/R		3 × 30	90							90

*1: Window material, R: resin coating

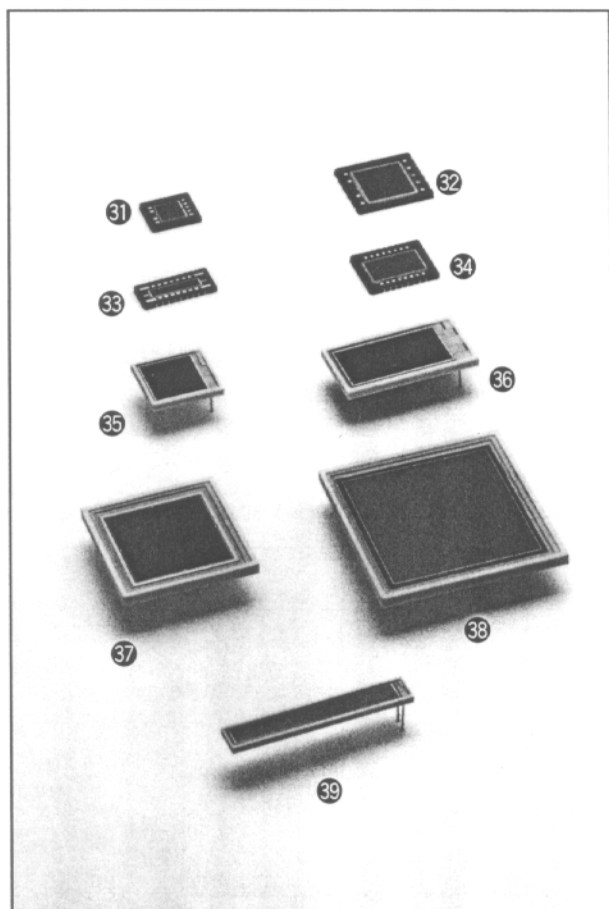
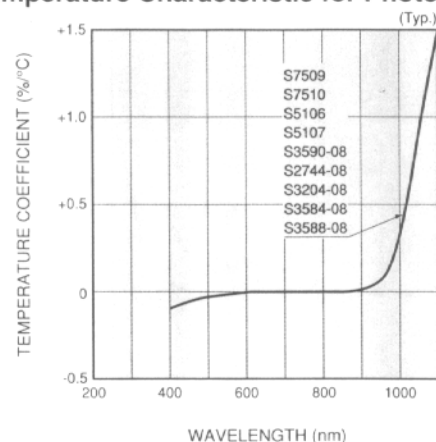
*2: BGO 480 nm

*3: Csl (TI) 540 nm

● Spectral Response



● Temperature Characteristic for Photo Sensitivity



(Unless otherwise noted, Typ. Ta=25 °C)

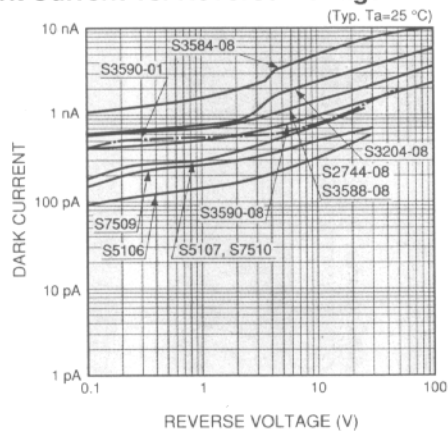
Dark Current I _D (nA)		Temperature Coefficient of I _D T _{CD}	Cut-off Frequency f _c	Terminal Capacitance C _t f=1 MHz	NEP	Absolute Maximum Ratings				Type No.
						Reverse Voltage V _R Max.	Power Dissipation P	Operating Temperature T _{opr}	Storage Temperature T _{stg}	
Typ.	Max.	(times/°C)	(MHz)	(pF)	(W/Hz ^{1/2})	(V)	(mW)	(°C)	(°C)	
0.4 *4	5 *4	1.15	20 *4	40 *4	1.6 × 10 ⁻¹⁴ *4	30	50	-40 to +100	-40 to +125	S5106
0.9 *4	10 *4		10 *4	150 *4	2.4 × 10 ⁻¹⁴ *4					S5107
0.5 *4	5 *4		20 *4	40 *4	1.7 × 10 ⁻¹⁴ *4					S7509
1.0 *4	10 *4		15 *4	80 *4	2.5 × 10 ⁻¹⁴ *4					S7510
1.5 *5	5 *5	1.12	35 *5	75 *5	3.9 × 10 ⁻¹⁴ *5	50	100	-20 to +60	-20 to +80	S3590-01
2 *6	6 *6		40 *6	40 *6	3.8 × 10 ⁻¹⁴ *6	100				S3590-08
3 *6	10 *6		25 *6	85 *6	4.7 × 10 ⁻¹⁴ *6					S2744-08
6 *6	20 *6		20 *6	130 *6	6.6 × 10 ⁻¹⁴ *6					S3204-08
10 *6	30 *6		10 *6	300 *6	8.6 × 10 ⁻¹⁴ *6					S3584-08
3 *6	10 *6		40 *6	40 *6	4.7 × 10 ⁻¹⁴ *6					S3588-08

*4: V_R=10 V

*5: V_R=30 V

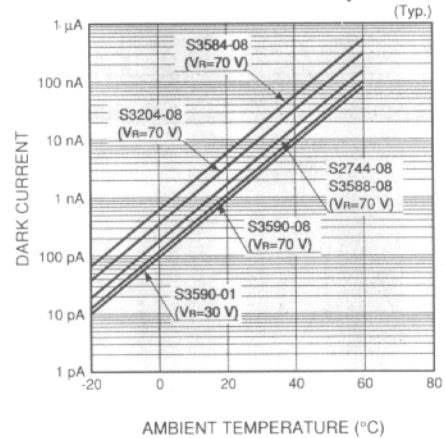
*6: V_R=70 V

● Dark Current vs. Reverse Voltage



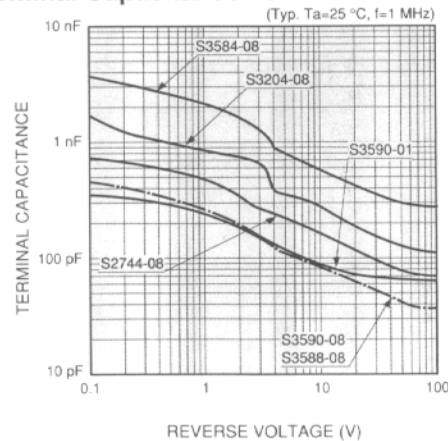
KPINB0094EB

● Dark Current vs. Ambient Temperature



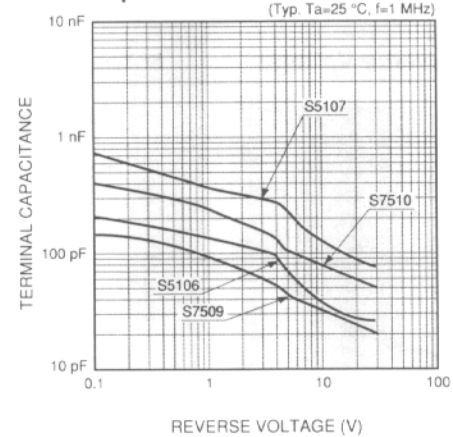
KPINB0072EC

● Terminal Capacitance vs. Reverse Voltage



KPINB0095EC

● Terminal Capacitance vs. Reverse Voltage



KPINB0128EA