

Si PIN photodiode S6036 series

φ7 mm lens plastic package



S6036 series is Si PIN photodiode molded into a plastic package with a φ7 mm lens. Two types are available: S6036 of clear plastic package and S6036-01 of visible-cut package.

Features

- Plastic package with φ7 mm lens
- High-speed response: 25 MHz Typ. ($V_R=12$ V, $\lambda=850$ nm)
- High sensitivity: 0.56 A/W ($\lambda=\lambda_p$)
- Directivity: $\pm 25^\circ$ (half angle)
- S6036-01: visible-cut type

Applications

- Spatial light transmission
- Optical communications
- Optical data link
- High-speed optical measurement
- Optical switches
- Laser radars

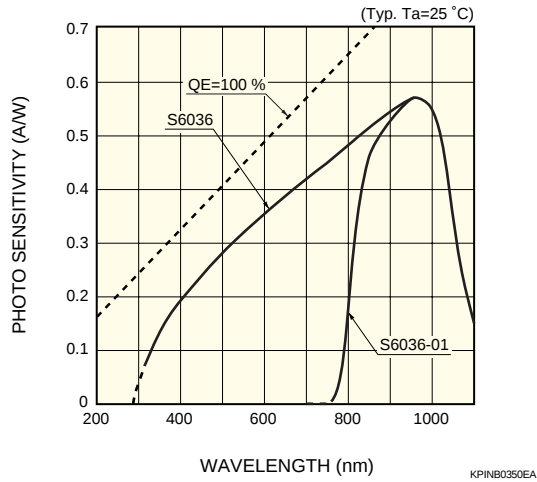
■ Absolute maximum ratings

Parameter	Symbol	Value	Unit
Reverse voltage	V_R Max.	35	V
Operating temperature	T_{opr}	-25 to +85	°C
Storage temperature	T_{stg}	-40 to +100	°C

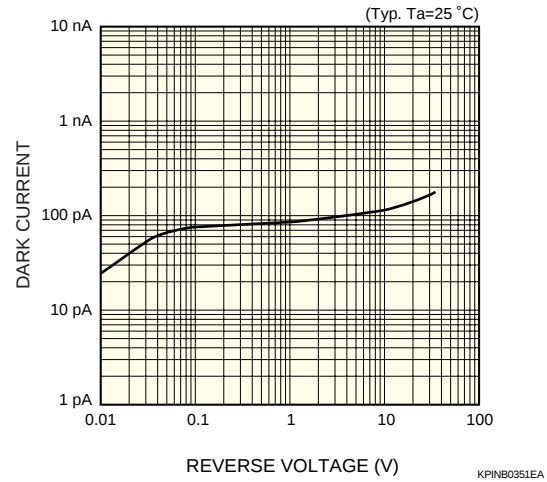
■ Electrical and optical characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Condition	S6036			S6036-01			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Spectral response range	λ		-	320 to 1100	-	-	760 to 1100	-	nm
Peak sensitivity wavelength	λ_p		-	960	-	-	960	-	nm
Photo sensitivity	S	$\lambda=\lambda_p$	0.51	0.56	-	0.51	0.56	-	A/W
Short circuit current	I_{sc}	100 lx, 2856 K	24	30	-	13	17	-	μA
Dark current	I_D	$V_R=12$ V	-	0.1	10	-	0.1	10	nA
Temperature coefficient of dark current	T_{CID}		-	1.15	-	-	1.15	-	times/°C
Cut-off frequency	f_c	$V_R=12$ V, $R_L=50\ \Omega$ $\lambda=850$ nm, -3 dB	10	25	-	10	25	-	MHz
Terminal capacitance	C_t	$V_R=12$ V, $f=1$ MHz	-	15	30	-	15	30	pF
Half angle	-		-	±25	-	-	±25	-	degree

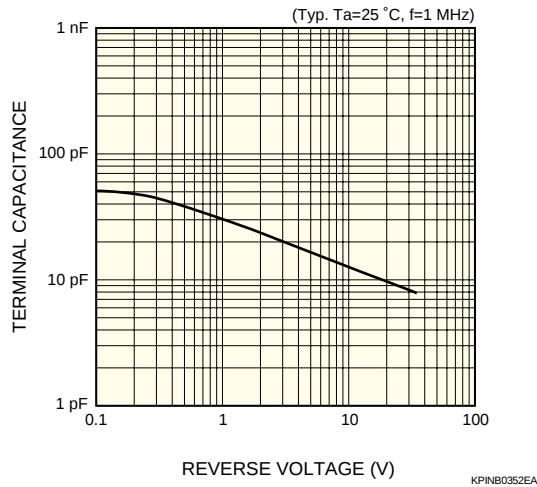
■ Spectral response



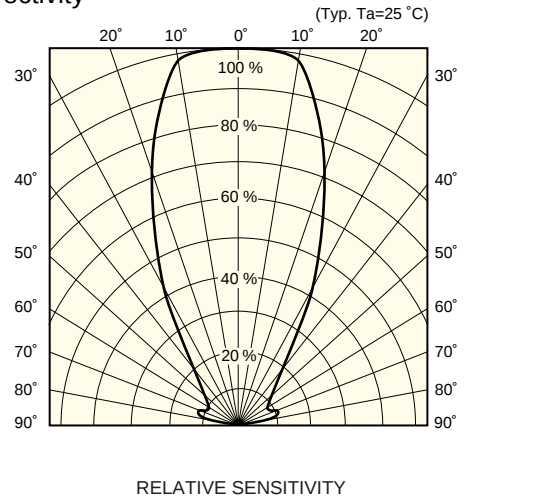
■ Dark current vs. reverse voltage



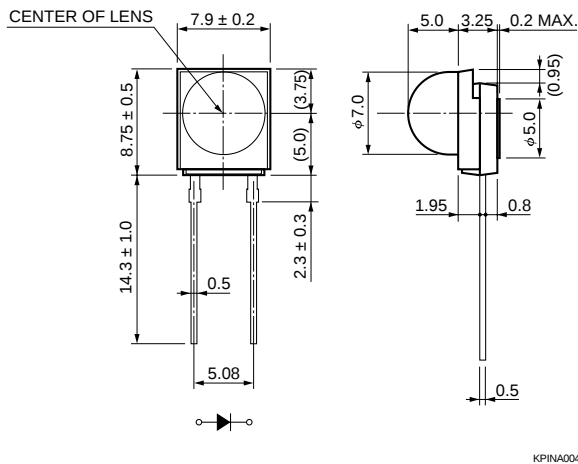
■ Terminal capacitance vs. reverse voltage



■ Directivity



■ Dimensional outline (unit: mm, tolerance unless otherwise noted: ± 0.1)



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