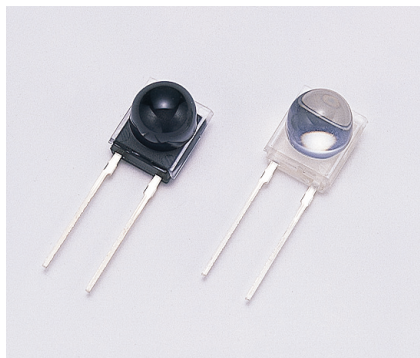


Si PIN photodiode



S6036 series

φ7 mm lens plastic package

The 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. ($V_R=12\text{ V}$, $\lambda=850\text{ nm}$)
- High sensitivity: 0.56 A/W ($\lambda=\lambda_p$)
- Directivity: $\pm 25^\circ$ (half angle)
- S6036-01: visible-cut type

Applications

- FSO (free space optics)
- Optical communications
- Optical data link
- High-speed optical measurement
- Optical switches
- Laser radars

Absolute maximum ratings

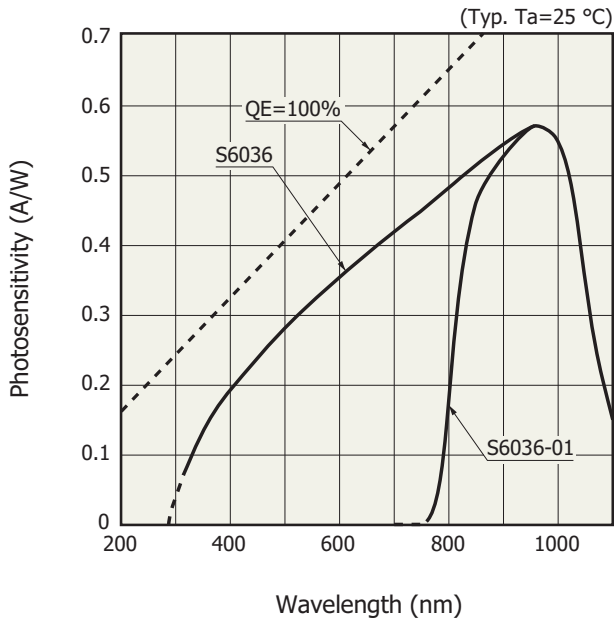
Parameter	Symbol	Value	Unit
Reverse voltage	V_R max	20	V
Operating temperature	T_{opr}	-25 to +85	°C
Storage temperature	T_{stg}	-40 to +100	°C

Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

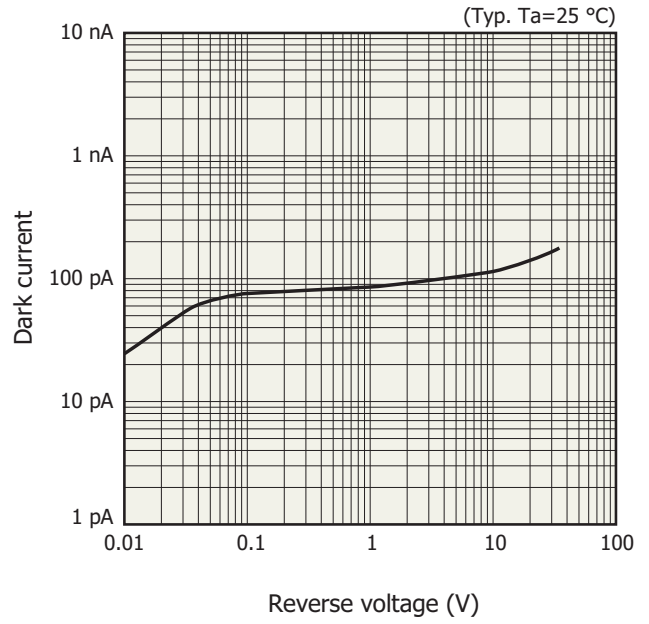
Electrical and optical characteristics ($T_a=25\text{ }^\circ\text{C}$)

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
Photosensitivity	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	$V_R=12\text{ V}$	-	0.1	10	-	0.1	10	nA
Temperature coefficient of dark current	T_{CID}		-	1.15	-	-	1.15	-	times/°C
Cutoff frequency	f_c	$V_R=12\text{ V}$, $R_L=50\ \Omega$ $\lambda=850\text{ nm}$, -3 dB	10	25	-	10	25	-	MHz
Terminal capacitance	C_t	$V_R=12\text{ V}$, $f=1\text{ MHz}$	-	15	30	-	15	30	pF
Half angle	-		-	± 25	-	-	± 25	-	degree

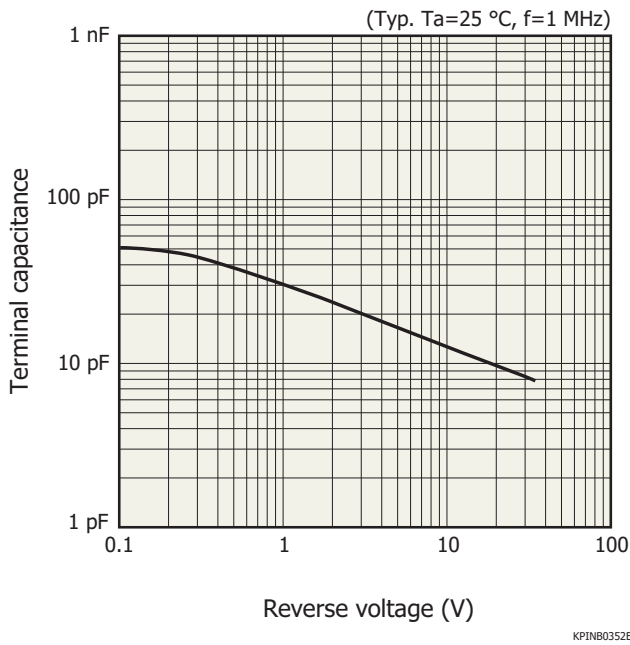
Spectral response



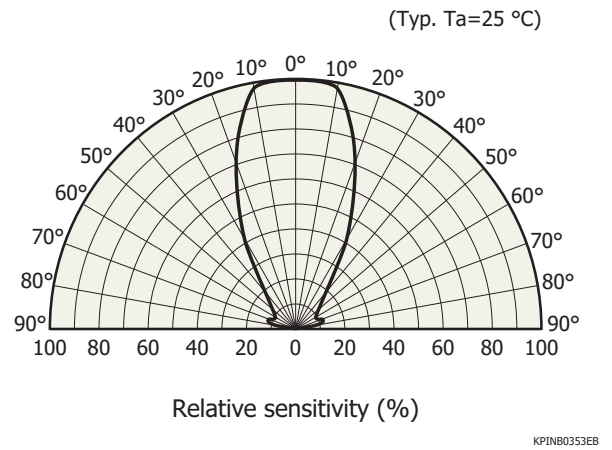
Dark current vs. reverse voltage



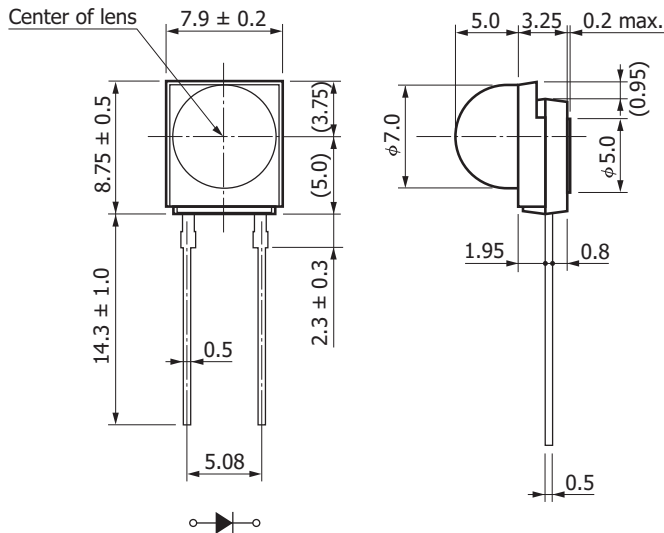
Terminal capacitance vs. reverse voltage



Directivity



Dimensional outline (unit: mm)



Tolerance unless otherwise noted: ± 0.1

KPINA0047EB

Related information

www.hamamatsu.com/sp/ssd/doc_en.html

■ Precautions

- Disclaimer
- Metal, ceramic, plastic package products

■ Technical information

- Si photodiode/Application circuit examples

Information described in this material is current as of April 2020.

Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use. Copying or reprinting the contents described in this material in whole or in part is prohibited without our prior permission.

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