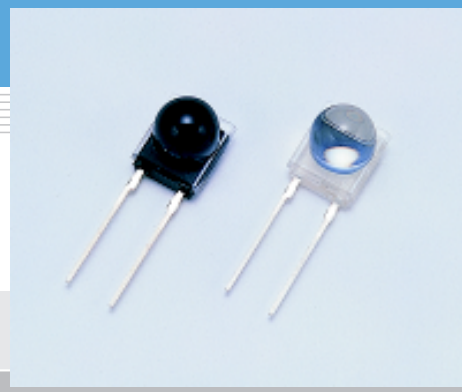


Si PIN photodiode S6036 series

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

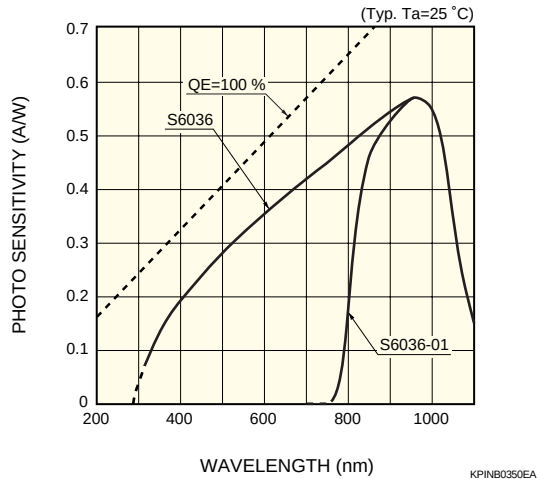
■ Absolute maximum ratings

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

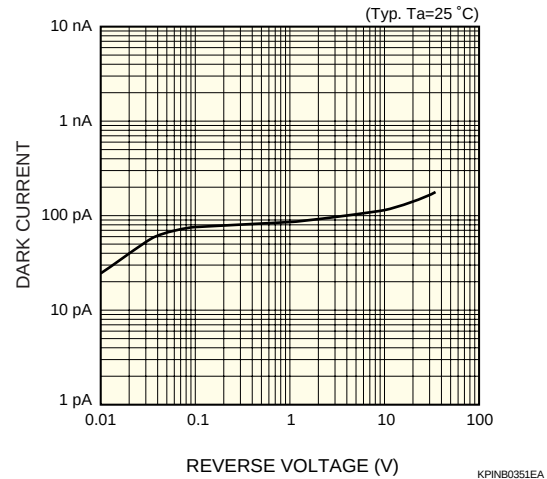
■ Electrical and optical characteristics ($T_a=25^\circ\text{C}$)

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

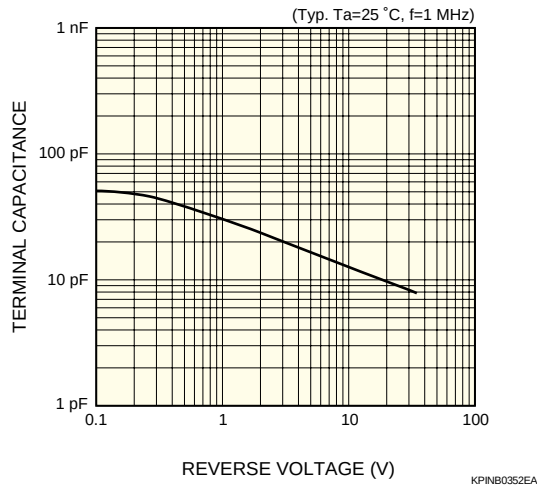
Spectral response



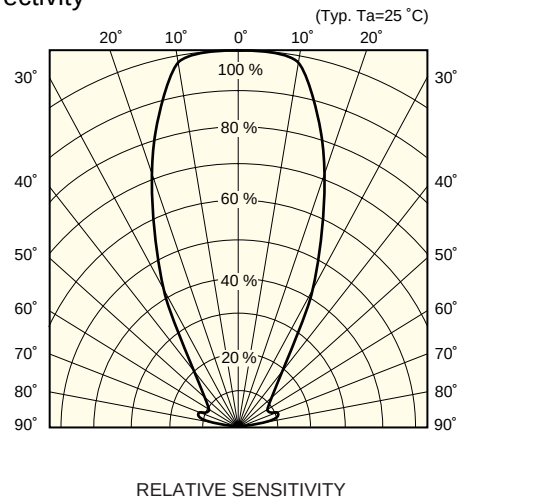
Dark current vs. reverse voltage



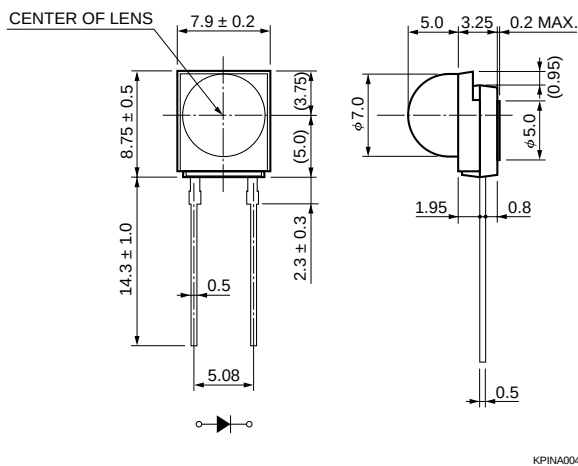
Terminal capacitance vs. reverse voltage



Directivity



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



HAMAMATSU

Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2007 Hamamatsu Photonics K.K.

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Higashi-ku, Hamamatsu City, 435-8558 Japan, Telephone: (81) 53-434-3311, Fax: (81) 53-434-5184, www.hamamatsu.com

U.S.A.: Hamamatsu Corporation, 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH, Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 08152-3750, Fax: (49) 08152-2658

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trépu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited, 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777

North Europe: Hamamatsu Photonics Norden AB, Smidesvägen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741