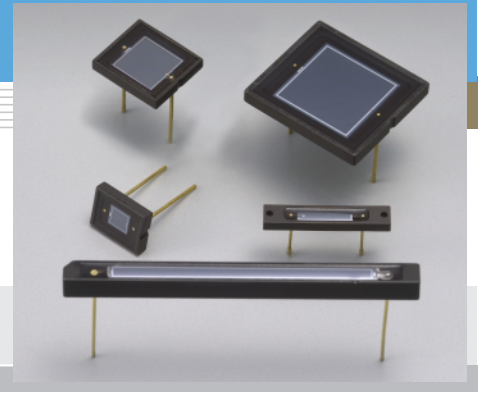


Si photodiode S2387 series

For visible to IR, general-purpose photometry



Features

- High sensitivity
- Low dark current
- High linearity

Applications

- Analytical equipment
- Optical measurement equipment, etc.

■ General ratings / Absolute maximum ratings

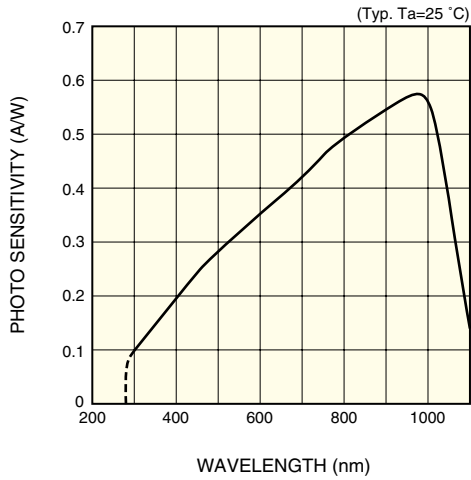
Type No.	Dimensional outline/ Window material *	Package (mm)	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
					Reverse voltage VR Max. (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S2387-16R	①/R	2.7 × 15	1.1 × 5.9	6.4	30	-20 to +60	-20 to +80
S2387-33R	②/R	6 × 7.6	2.4 × 2.4	5.7			
S2387-66R	③/R	8.9 × 10.1	5.8 × 5.8	33			
S2387-1010R	④/R	15 × 16.5	10 × 10	100			
S2387-130R	⑤/R	3.0 × 40	1.2 × 29.1	35			

■ Electrical and optical characteristics (Typ. Ta=25 °C, unless otherwise noted)

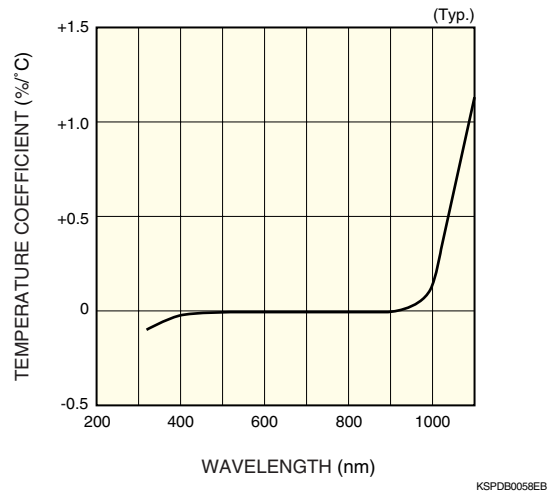
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ_p (nm)	Photo sensitivity S (A/W)			Short circuit current Isc 100 lx		Dark current ID VR=10 mV Max. (pA)	Temp. coefficient of ID TCID (times/°C)	Rise time tr VR=0 V RL=1 kΩ (μs)	Terminal capacitance Ct VR=0 V f=10 kHz (pF)	Shunt resistance Rsh VR=10 mV		NEP (W/Hz ^{1/2})					
			λ_p	GaP LED 560 nm	He-Ne laser 633 nm	Min. (μA)	Typ. (μA)					Min. (GΩ)	Typ. (GΩ)						
S2387-16R	320 to 1100	960	0.58	0.33	0.37	4.4	6.0	5	1.12	1.8	730	2	50	9.9×10^{-16}					
S2387-33R						4.4	5.8												
S2387-66R						24	31	50							10	4300	0.2	10	2.2×10^{-15}
S2387-1010R						68	91	200											
S2387-130R						25	32	100											

* Window material, R: resin coating

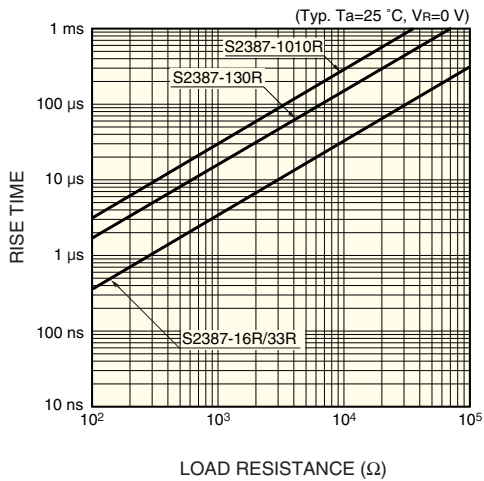
■ Spectral response



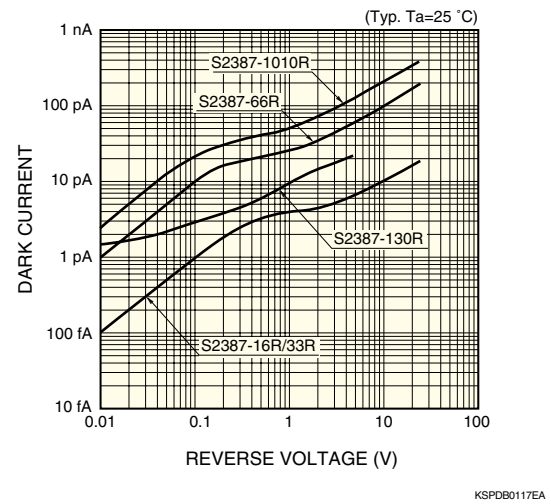
■ Photo sensitivity temperature characteristic



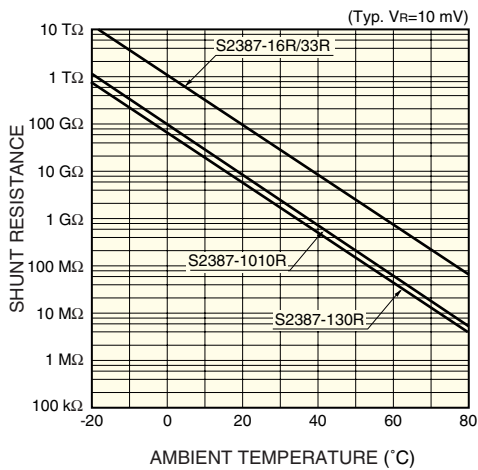
■ Rise time vs. load resistance



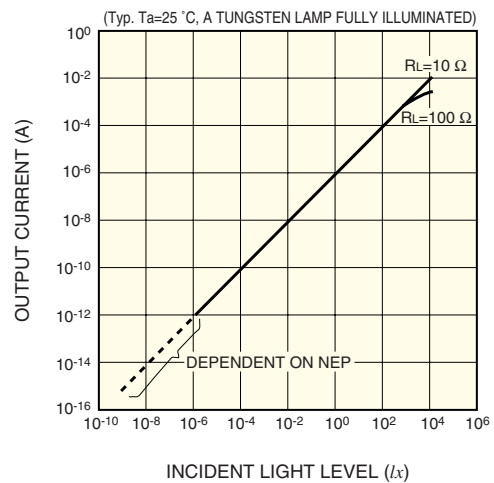
■ Dark current vs. reverse voltage



■ Shunt resistance vs. ambient temperature

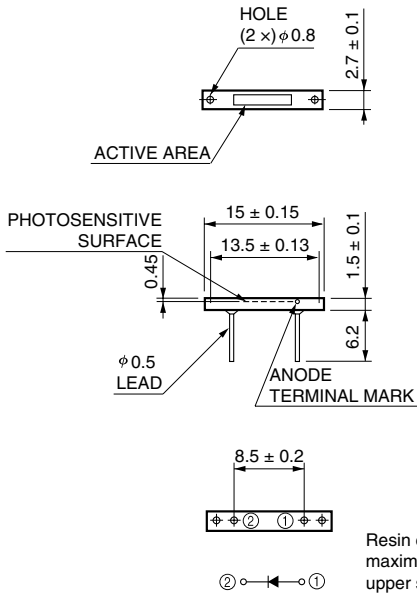


■ Photo sensitivity linearity (S2387-1010R)



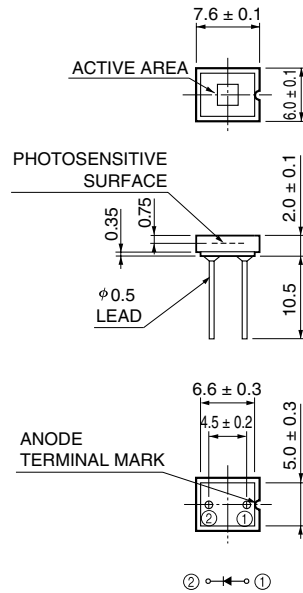
■ Dimensional outlines (unit: mm)

① S2387-16R



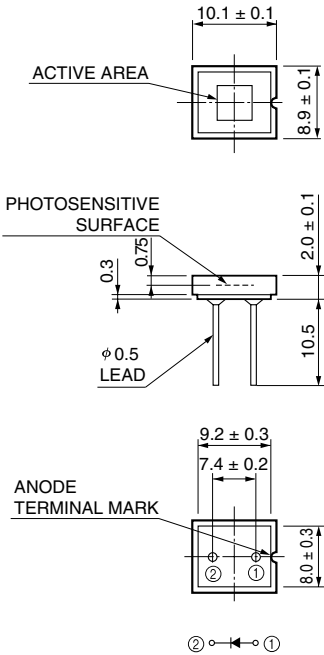
KSPDA0106EA

② S2387-33R



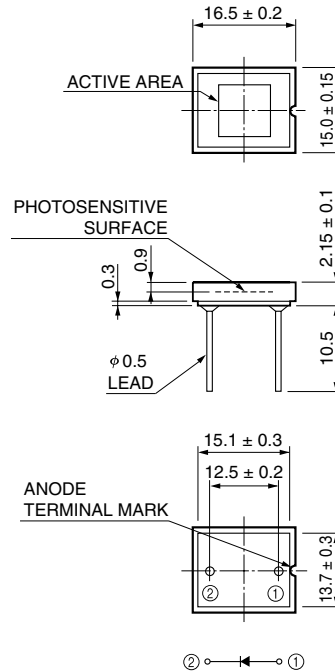
KSPDA0108EA

③ S2387-66R



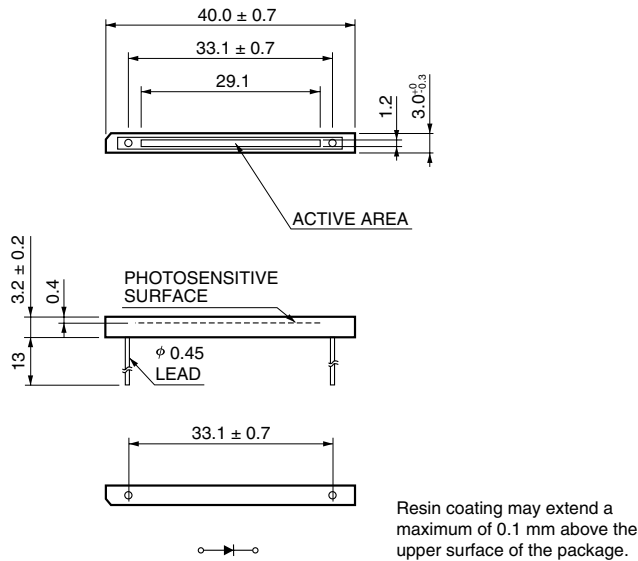
KSPDA0110EA

④ S2387-1010R



KSPDA0112EA

⑤ S2387-130R



KSPDA0117EA

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. ©2001 Hamamatsu Photonics K.K.

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Hamamatsu City, 435-8558 Japan, Telephone: (81) 053-434-3311, Fax: (81) 053-434-5184, <http://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.: 8, Rue du Saule Trapu, 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