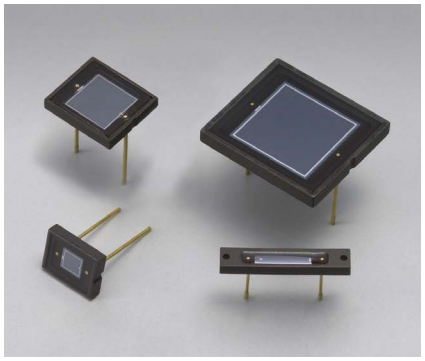
HAMAMATSU
PHOTON IS OUR BUSINESS

Si photodiodes



S2387 series

For visible to IR, general-purpose photometry

Features

- **High sensitivity in visible to infrared range**
- **Low dark current**
- **High linearity**

Applications

- **Analytical equipment**
- **Optical measurement equipment, etc.**

Structure / Absolute maximum ratings

Type No.	Window material	Package (mm)	Photosensitive area size (mm)	Effective photosensitive area (mm^2)	Absolute maximum ratings		
					Reverse voltage V_R max (V)	Operating temperature* Topr (°C)	Storage temperature* Tstg (°C)
S2387-16R	Resin potting	2.7 × 15	1.1 × 5.9	6.4	30	-20 to +60	-20 to +80
S2387-33R		6 × 7.6	2.4 × 2.4	5.7			
S2387-66R		8.9 × 10.1	5.8 × 5.8	33			
S2387-1010R		15 × 16.5	10 × 10	100			

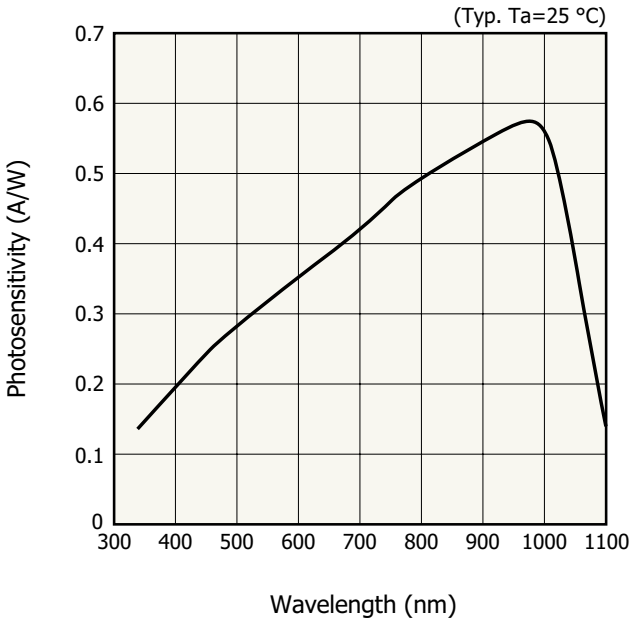
* No dew condensation
When there is a temperature difference between a product and the surrounding area in high humidity environments, dew condensation may occur on the product surface. Dew condensation on the product may cause deterioration in characteristics and reliability.

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

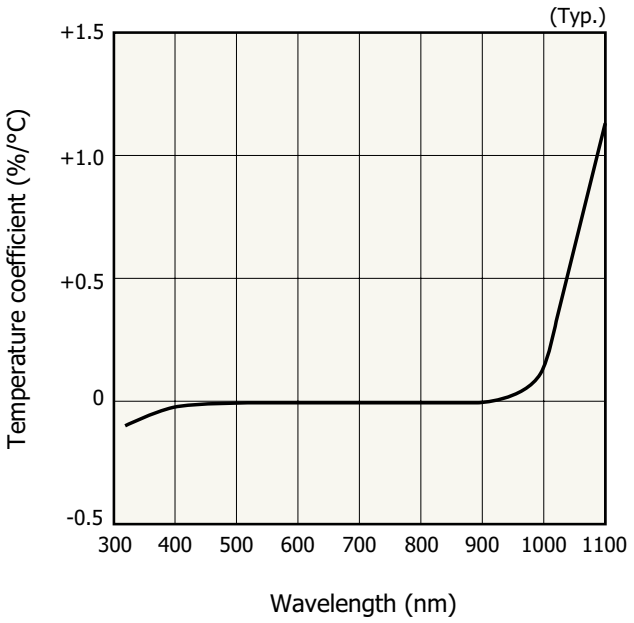
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λp (nm)	Photosensitivity S (A/W)			Short circuit current Isc 100 lx		Dark current I_D V_R=10 mV Max. (pA)	Temp. coefficient of I_D T_{CID} (times/°C)	Rise time tr V_R=0 V R_L=1 kΩ (μs)	Terminal capacitance Ct V_R=0 V f=10 kHz (pF)	Shunt resistance Rsh V_R=10 mV		Noise equivalent power NEP V_R=0 V λ=λp ($W/Hz^{1/2}$)
			λp	GaP LED 560 nm	He-Ne laser 633 nm	Min. (μA)	Typ. (μA)					Min. (GΩ)	Typ. (GΩ)	
S2387-16R	340 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		33	12000	0.05	5	3.1×10^{-15}

Spectral response



KSPDB0115EB

Photosensitivity temperature characteristic



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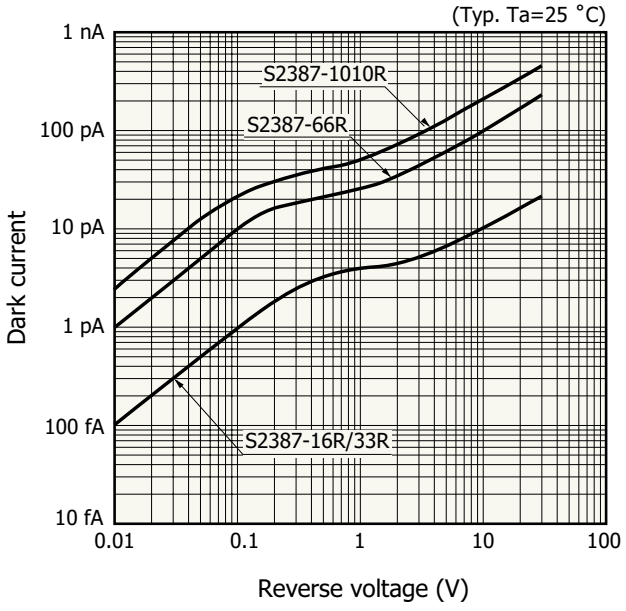
Dark current vs. reverse voltage



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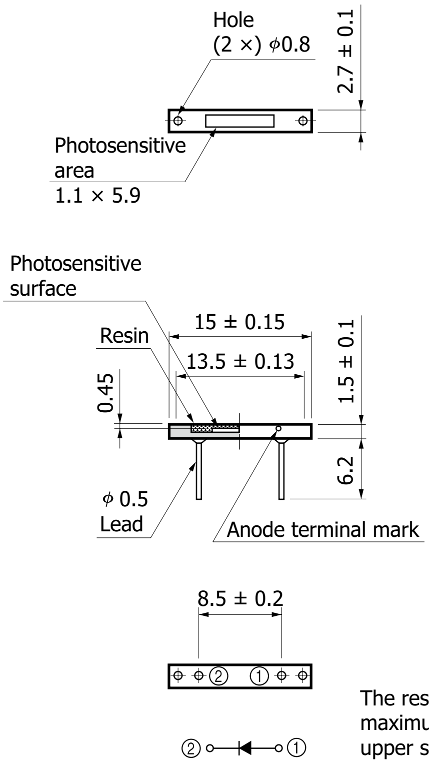
Dimensional outlines (unit: mm)

S2387-16R



The resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

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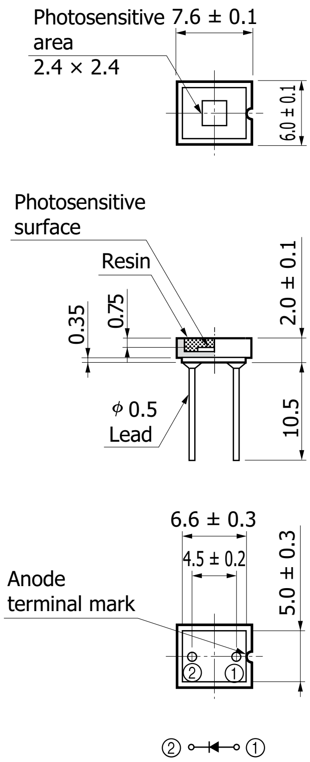
S2387-33R



The resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

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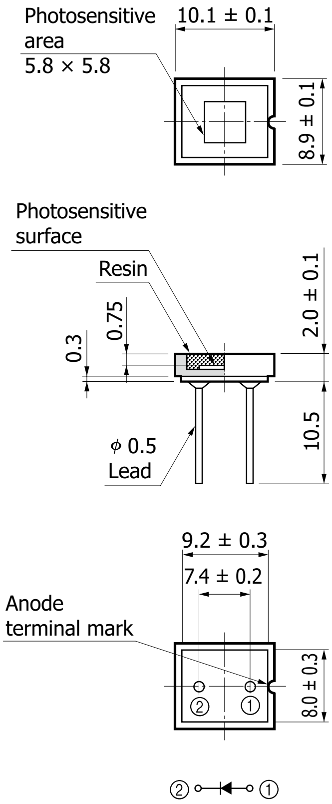
S2387-66R



The resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

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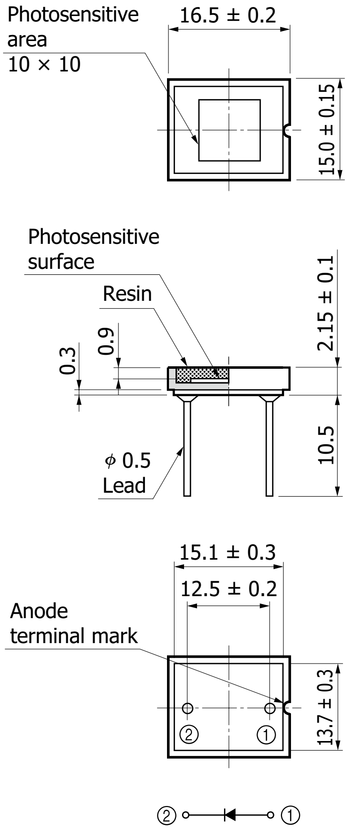
S2387-1010R



The resin potting may extend a maximum of 0.1 mm above the upper surface of the package.

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Recommended soldering conditions

Solder temperature: 260 °C (5 s or less, once)
Solder the leads at a point at least 2 mm away from the package body.
Note: When you set soldering conditions, check that problems do not occur in the product by testing out the conditions in advance.

Related information

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

■ Precautions
· Disclaimer
· Metal, ceramic, plastic package products

■ Technical note
· Si photodiodes

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