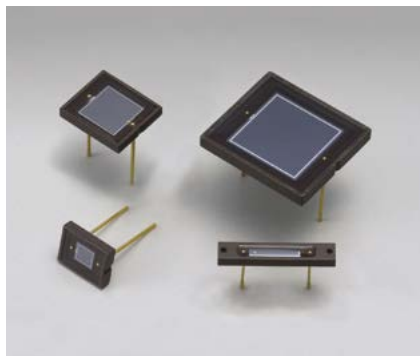


S12915 series



For visible to IR, general-purpose photometry

These Si photodiodes have high sensitivity in the visible range to near IR. They provide higher sensitivity than the S2387 series and can be used in high-humidity environments.

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	Refractive index of window material	Package	Effective photosensitive area (mm ²)	Absolute maximum ratings		
					Reverse voltage V _R max (V)	Operating temperature* T _{opr} (°C)	Storage temperature* T _{stg} (°C)
S12915-16R	Epoxy resin	1.53	ceramic	6.0	30	-20 to +60	-20 to +80
S12915-33R				5.7			
S12915-66R				33			
S12915-1010R				100			

* No dew condensation.

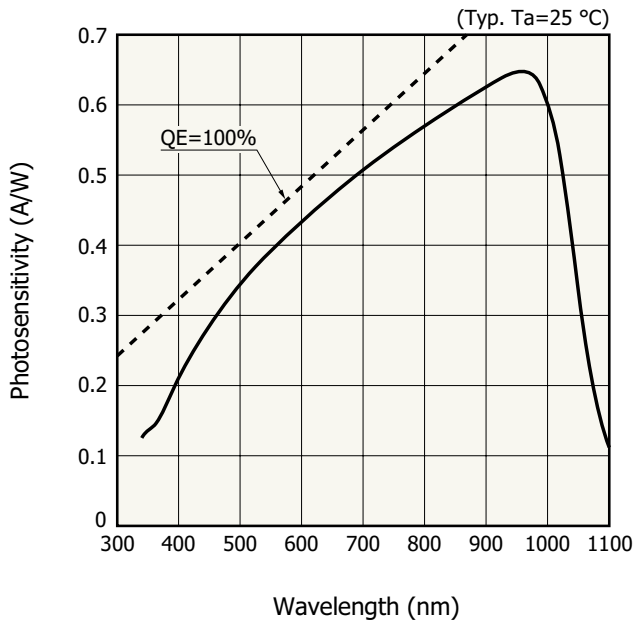
When there is a temperature difference between a product and the surrounding area in high humidity environments, dew condensation may occur on the product surface. Dew condensation on the product may cause deterioration in characteristics and reliability.

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. T_a=25 °C, unless otherwise noted)

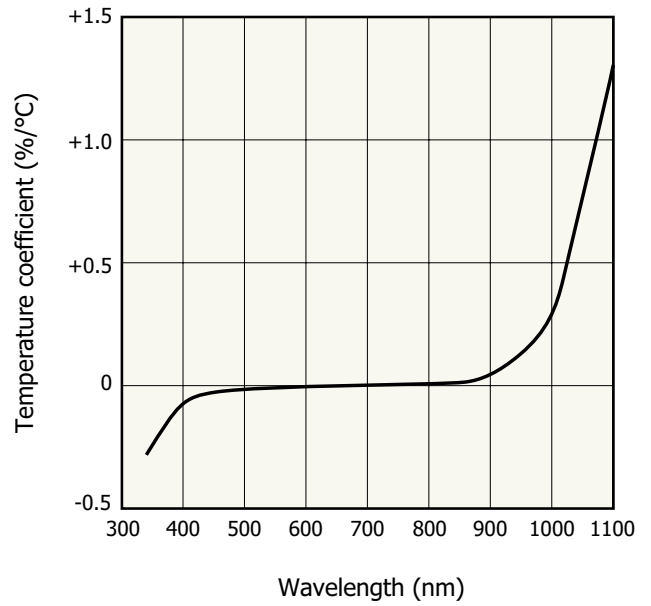
Type no.	Spectral response range λ (nm)	Peak sensitivity wavelength λ _p (nm)	Photosensitivity S λ=λ _p (A/W)	Short circuit current I _{sc} 100 lx		Dark current I _D V _R =10 mV Max. (pA)	Temp. coefficient of I _D T _{CD} (times/°C)	Rise time t _r V _R =0 V R _L =1 kΩ (μs)	Terminal capacitance C _t V _R =0 V f=10 kHz (pF)	Shunt resistance R _{sh} V _R =10 mV		Noise equivalent power NEP V _R =0 V λ=λ _p (W/Hz ^{1/2})	
				Min. (μA)	Typ. (μA)					Min. (GΩ)	Typ. (GΩ)		
S12915-16R	340 to 1100	960	0.64	4.6	5.8	5	1.12	1.8	740	2	50	9.0 × 10 ⁻¹⁶	
S12915-33R				5.0	5.7			1.6	680				
S12915-66R				26	33	50		9	4000	0.2	10		2.0 × 10 ⁻¹⁵
S12915-1010R				76	95			33	13000	0.05	5		2.8 × 10 ⁻¹⁵

Spectral response



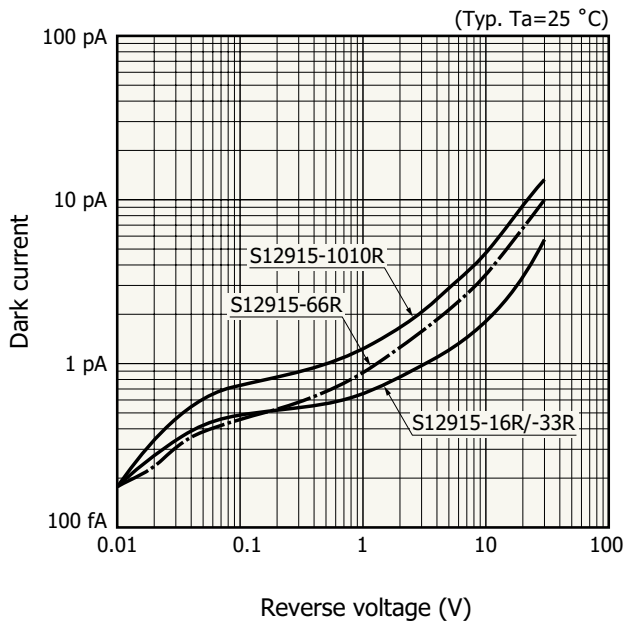
KSPDB0363EA

Photosensitivity temperature characteristics



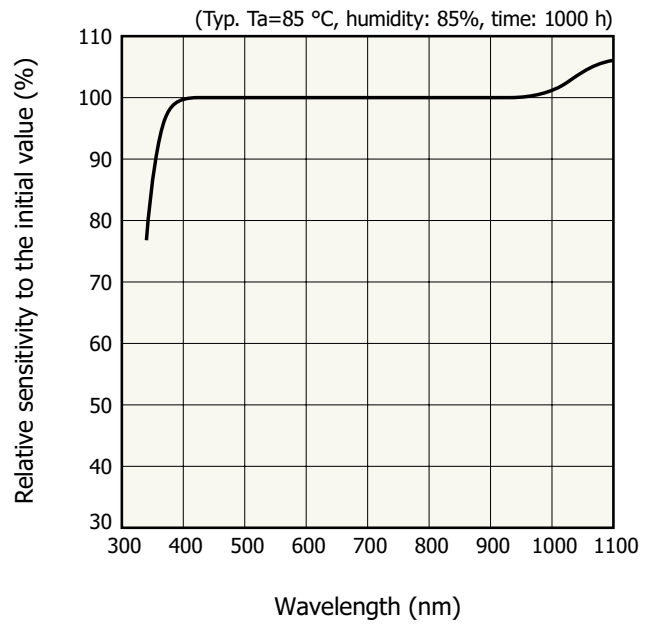
KSPDB0364EA

Dark current vs. reverse voltage



KSPDB0365EA

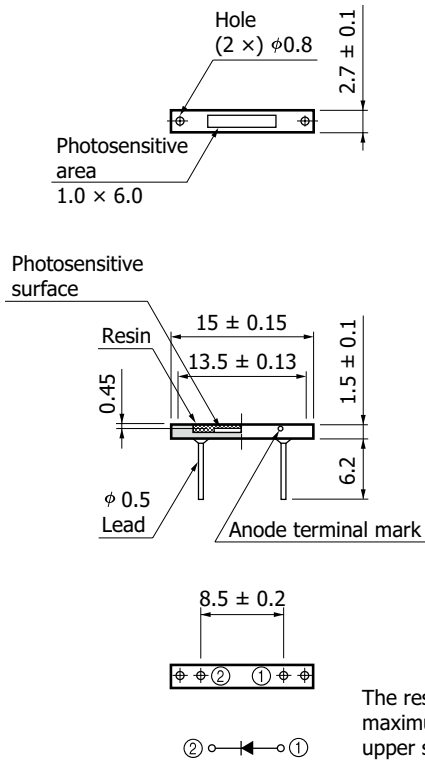
Changes to spectral sensitivity due high temperature and high humidity



KSPDB0366EB

Dimensional outlines (unit: mm)

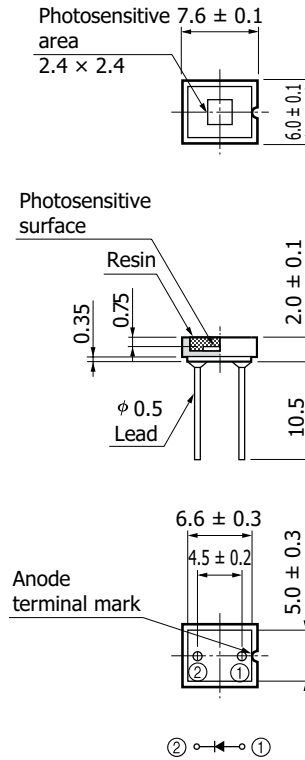
S12915-16R



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

KSPDA0106EC

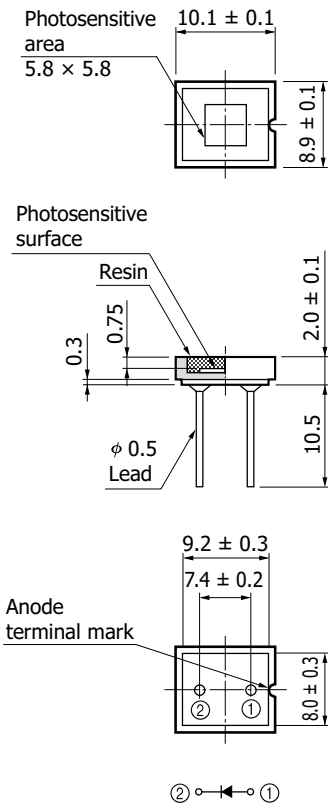
S12915-33R



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

KSPDA0108EB

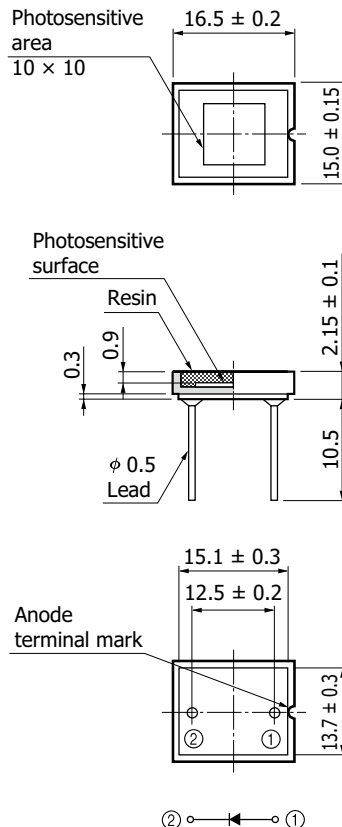
S12915-66R



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

KSPDA0110EB

S12915-1010R



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

KSPDA0112EB

Products corresponding to current products

Current product	Compatible products
S2387-16R	S12915-16R
S2387-33R	S12915-33R
S2387-66R	S12915-66R
S2387-1010R	S12915-1010R

Related information

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

Precautions

- Disclaimer
- Metal, ceramic, plastic package products

Technical note

- Si photodiodes

Information described in this material is current as of September 2024.

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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