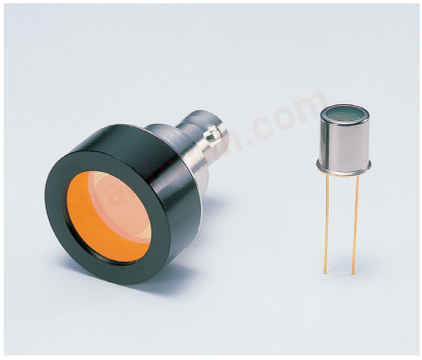
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HAMAMATSU
PHOTON IS OUR BUSINESS



Si photodiodes

S9219 series

Spectral response like human eye

Features

- **Accurate visible-compensated filter is used.**
- **High reliable metal package**
- **S9219: Metal package with BNC connector (photosensitive area: ϕ11.3 mm)**
- **S9219-01: TO-5 (photosensitive area: 3.6 × 3.6 mm)**

Applications

- **Photometry**
- **Luxmeter**

Absolute maximum ratings

Parameter	Symbol	S9219	S9219-01	Unit
Reverse voltage	VR max	5	5	V
Operating temperature*1	Topr	-20 to +50	-40 to +50	°C
Storage temperature*1	Tstg	-55 to +50	-55 to +50	°C

*1: 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.

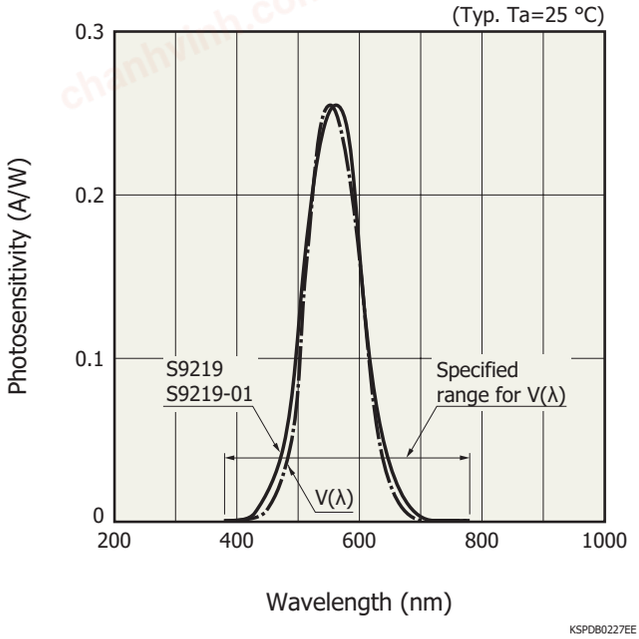
Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	S9219		S9219-01		Unit
			Typ.	Max.	Typ.	Max.	
Spectral response range	λ	*2	380 to 780	-	380 to 780	-	nm
Peak sensitivity wavelength	λp		550	-	550	-	nm
Photosensitivity	S	λ=λp	0.24	-	0.22	-	A/W
Short circuit current	Isc	100 *lx*, 2856 K	4.5	-	0.6	-	μA
Dark current	ID	VR=10 mV	50	500	10	50	pA
Rise time	tr	VR=0 V, RL=1 kΩ	2.5	-	0.5	-	μs
Terminal capacitance	Ct	VR=0 V, f=10 kHz	1100	-	150	-	pF

*2: Conforms to specified range for V(λ)

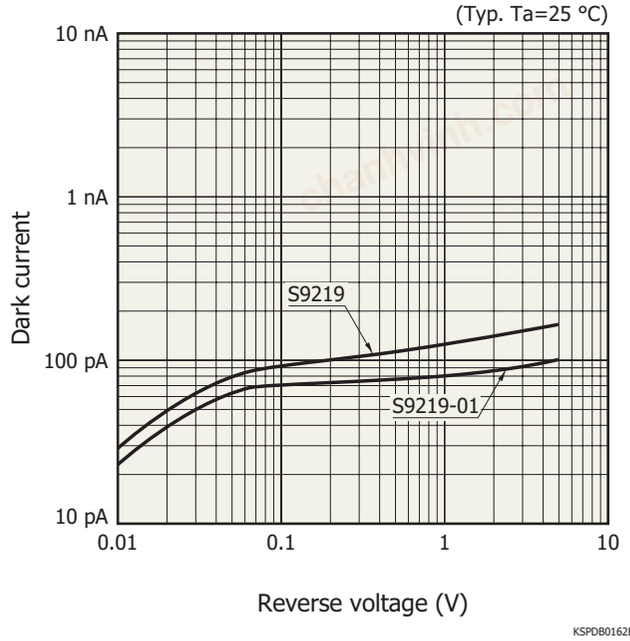
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Spectral response



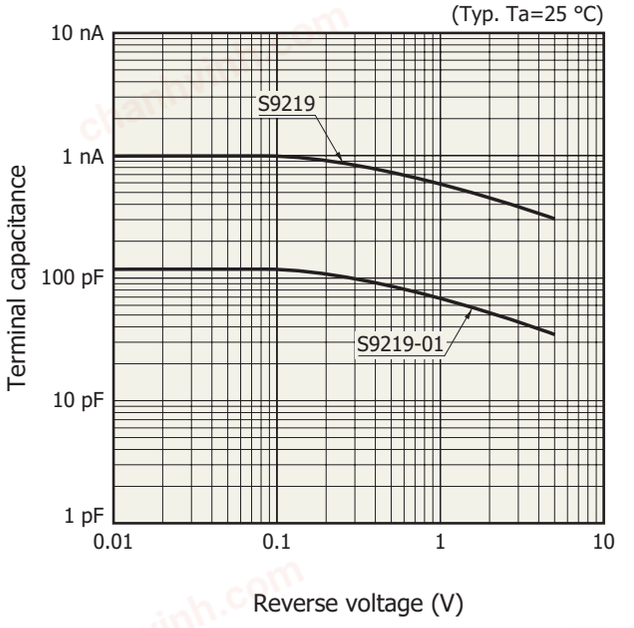
KSPDB0227EE

Dark current vs. reverse voltage



KSPDB0162EB

Terminal capacitance vs. reverse voltage

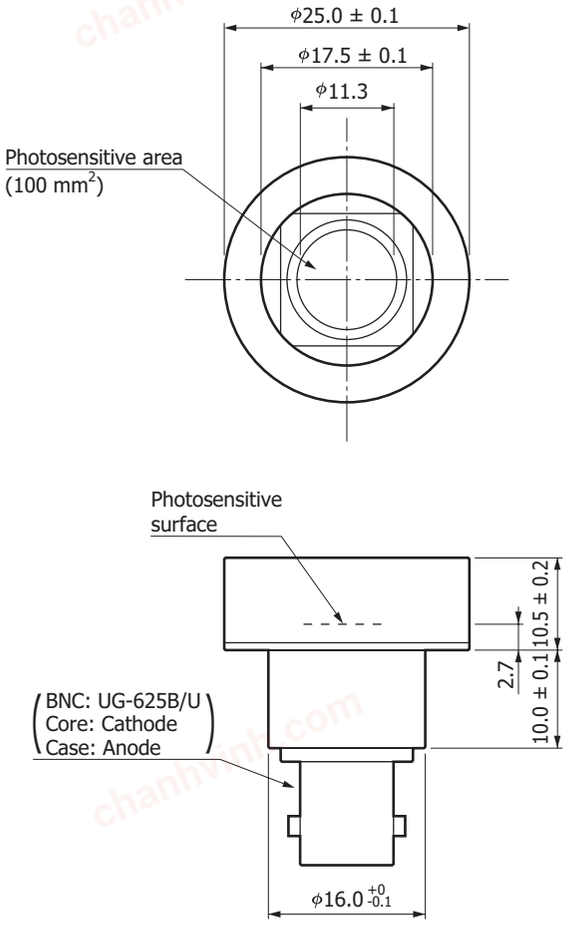


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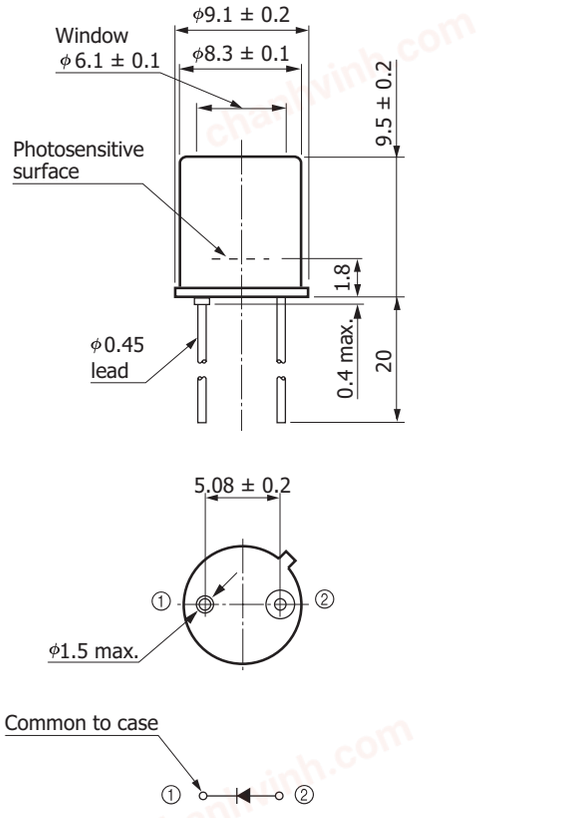
Dimensional outlines (unit: mm)

S9219



KSPDA0077EB

S9219-01



KSPDA0078EB

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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 November 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.
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