

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: $\phi 11.3$ 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	V_R max	5	5	V
Operating temperature*1	T_{opr}	-20 to +50	-40 to +50	°C
Storage temperature*1	T_{stg}	-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.

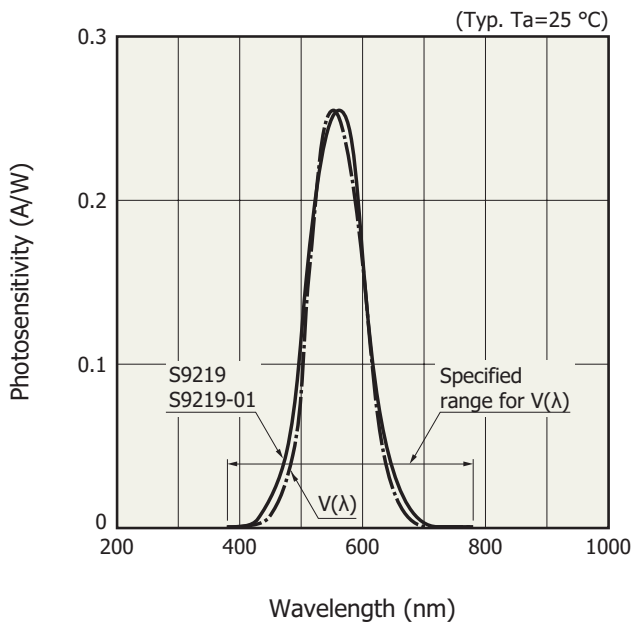
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

Electrical and optical characteristics (Ta=25 °C)

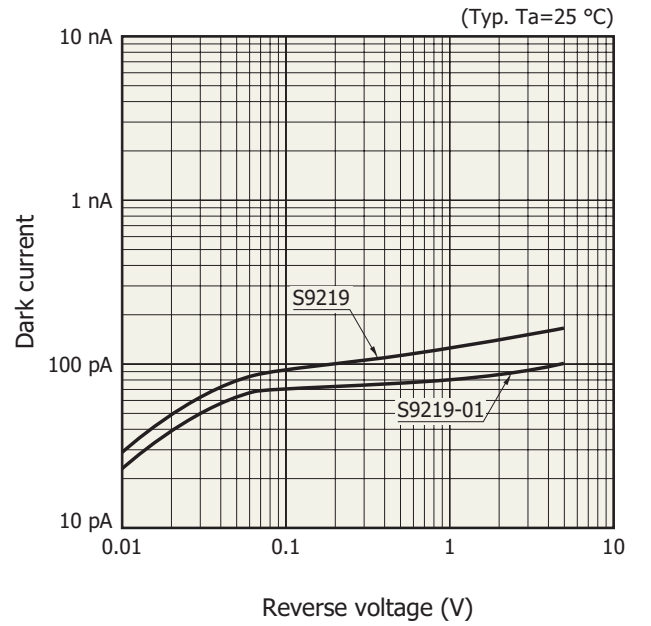
Parameter	Symbol	Condition	S9219		S9219-01		Unit
			Typ.	Max.	Typ.	Max.	
Spectral response range	λ	*2	380 to 780	-	380 to 780	-	nm
Peak sensitivity wavelength	λ_p		550	-	550	-	nm
Photosensitivity	S	$\lambda = \lambda_p$	0.24	-	0.22	-	A/W
Short circuit current	I_{sc}	100 lx, 2856 K	4.5	-	0.6	-	μ A
Dark current	I_D	$V_R = 10$ mV	50	500	10	50	pA
Rise time	t_r	$V_R = 0$ V, $R_L = 1$ k Ω	2.5	-	0.5	-	μ s
Terminal capacitance	C_t	$V_R = 0$ V, $f = 10$ kHz	1100	-	150	-	pF

*2: Conforms to specified range for $V(\lambda)$

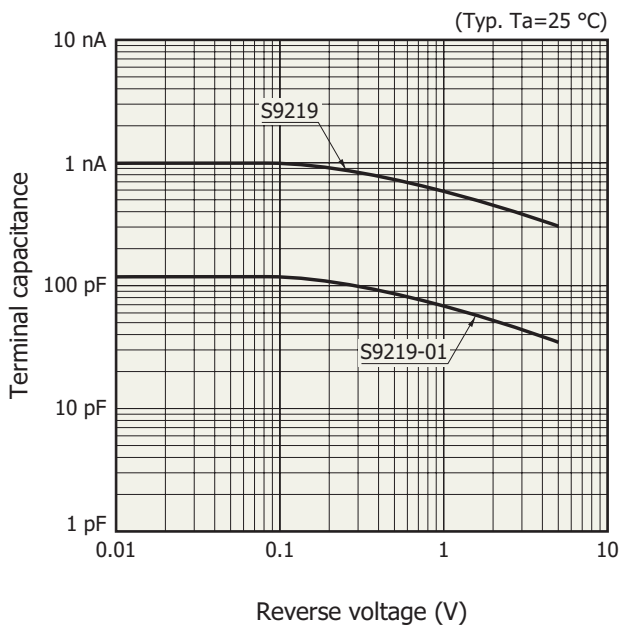
Spectral response



Dark current vs. reverse voltage

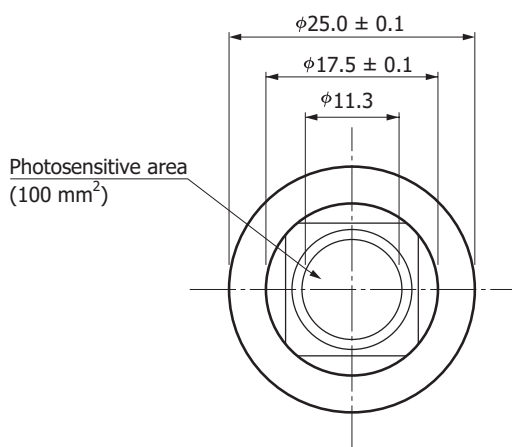


Terminal capacitance vs. reverse voltage

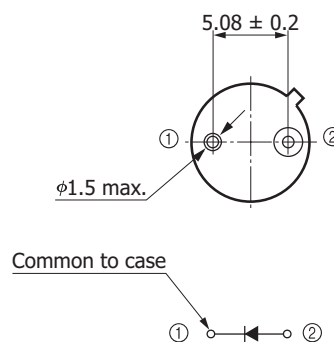
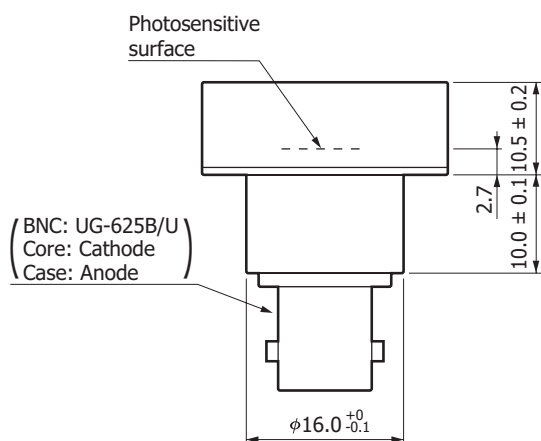
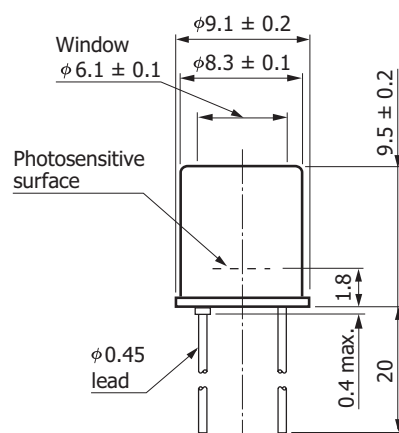


Dimensional outlines (unit: mm)

S9219



S9219-01



KSPDA0077EB

KSPDA0078EB

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. Copying or reprinting the contents described in this material in whole or in part is prohibited without our prior permission.

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