

Si photodiode S9219 series

Spectral response like human eye



Features

- Accurate visible compensation filter is used
- High reliable metal package
- S9219: Metal package with BNC connector (active area: $\phi 11.3$ mm)
- S9219-01: TO-5 (active area: 3.6×3.6 mm)
- Deviation from standard spectral luminous efficiency * $V(\lambda)$: fs = 10 % Typ.

Applications

- Photometry
- Luxmeter, etc.

■ Absolute maximum ratings

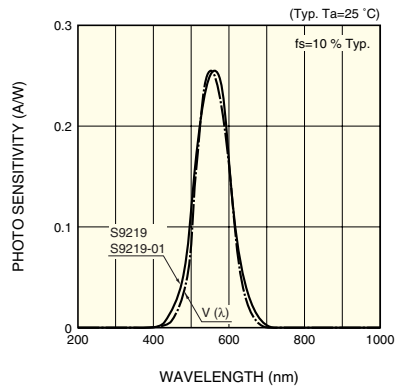
Parameter	Symbol	S9219	S9219-01	Unit
Reverse voltage	V_R Max.	5	5	V
Operating temperature	T_{opr}	-20 to +50	-40 to +50	°C
Storage temperature	T_{stg}	-55 to +50	-55 to +50	°C

■ Electrical and optical characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Condition	S9219		S9219-01		Unit
			Typ.	Max.	Typ.	Max.	
Spectral response range	λ		380 to 780	-	380 to 780	-	nm
Peak sensitivity wavelength	λ_p		555	-	555	-	nm
Photo sensitivity	S	$\lambda = \lambda_p$	0.24	-	0.22	-	A/W
Short circuit current	I_{sc}	100 lx, 2856 K	3.8	-	0.5	-	μA
Dark current	I_D	$V_R = 10$ mV	50	500	10	50	pA
Rise time	tr	$V_R = 0$ V, $R_L = 1$ k Ω	2.5	-	0.5	-	μs
Terminal capacitance	Ct	$V_R = 0$ V, f = 10 kHz	1100	-	150	-	pF

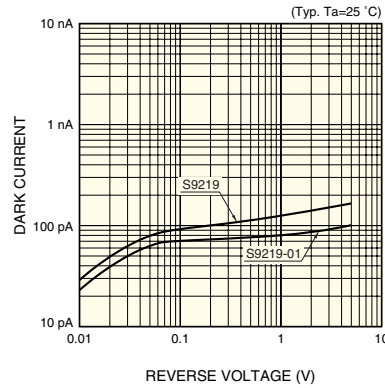
* Standard spectral luminous efficiency $V(\lambda)$: wavelength response of the human eye. The extent of deviation from $V(\lambda)$ is indicated as fs (%).

Spectral response



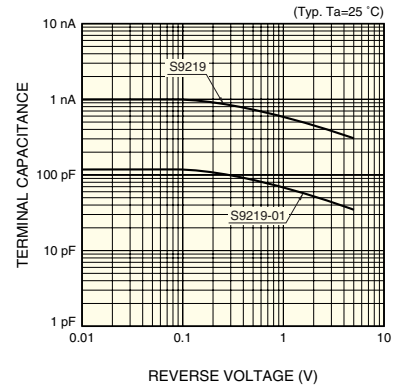
KSPDB0227EB

Dark current vs. reverse voltage



KSPDB0162EA

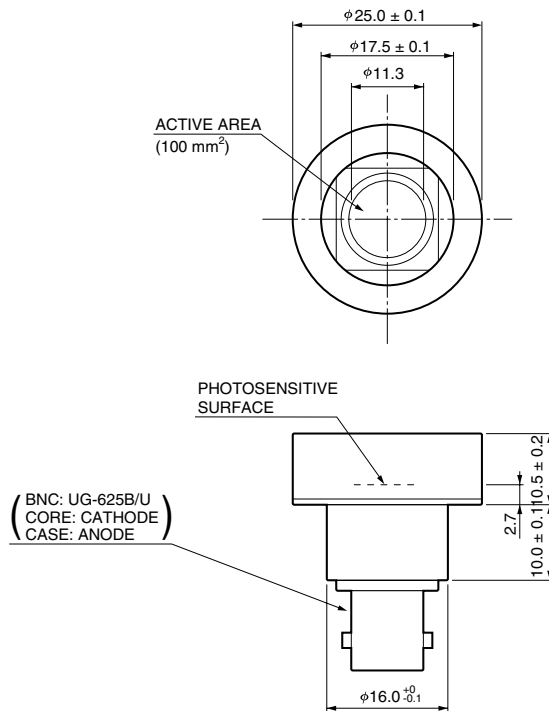
Terminal capacitance vs. reverse voltage



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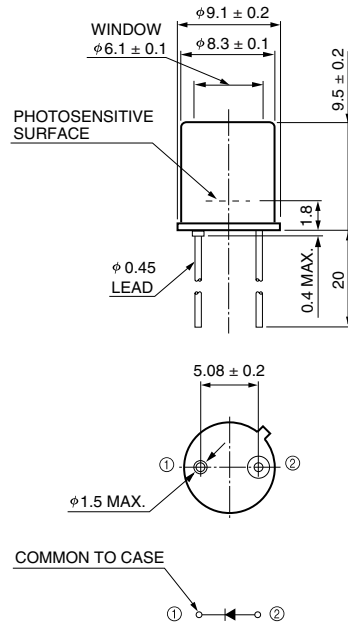
Dimensional outlines (unit: mm)

S9219



KSPDA0077EA

S9219-01



KSPDA0078EA

HAMAMATSU

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