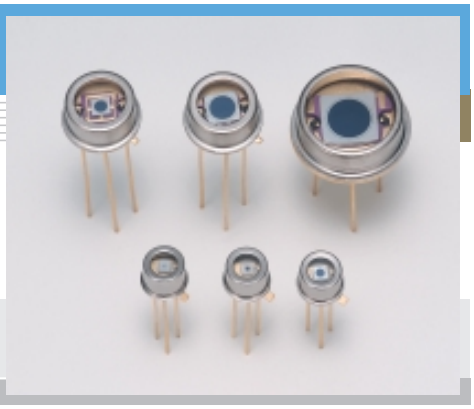
Si APD
S5343 to S5345, S9073 to S9075

Short wavelength type APD



Features

- High sensitivity and low noise in UV to visible range

Applications

- Low-light-level measurement
- Analytical equipment

■ General ratings / Absolute maximum ratings

Type No.	Dimensional outline/ Window material *1	Package	Effective active *2 area size (mm)	Effective active area (mm^2)	Absolute maximum ratings	
					Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S9073	①/U	TO-18	φ0.2	0.03	-20 to +60	-55 to +100
S9074			φ0.5	0.19		
S5343			φ1.0	0.78		
S9075	②/U	TO-5	φ1.5	1.77		
S5344			φ3.0	7.0		
S5345	③/U	TO-8	φ5.0	19.6		

■ Electrical and optical characteristics (Typ. Ta=25 °C, unless otherwise noted)

Type No.	Spectral response range λ (nm)	Peak *3 sensitivity wavelength λp (nm)	Photo sensitivity S M=1 λ=620 nm (A/W)	Quantum efficiency QE M=1 λ=620 nm (%)	Breakdown voltage V_{BR} I_D=100 μA Typ. (V)	Breakdown voltage V_{BR} I_D=100 μA Max. (V)	Temp. coefficient of V_{BR} (V/°C)	Dark *3 current I_D Typ. (nA)	Dark *3 current I_D Max. (nA)	Cut-off *3 frequency fc R_L=50 Ω (MHz)	Terminal *3 capacitance Ct (pF)	Excess *3 noise figure x λ=650 nm	Gain M λ=650 nm
S9073	200 to 1000	620	0.42	80	150	200	0.14	0.2	5	900	3	0.28	50
S9074										400	7		
S5343										250	15		
S9075								0.5	15	100	30		
S5344								1	30	25	120		
S5345								3	100	8	320		

*1: U: UV glass
*2: Area in which a typical gain can be obtained.
*3: Values measured at a gain listed in the characteristics table.

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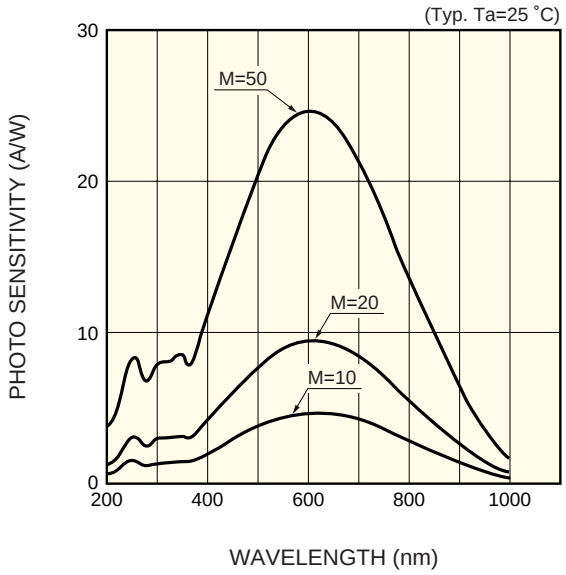
■ Spectral response



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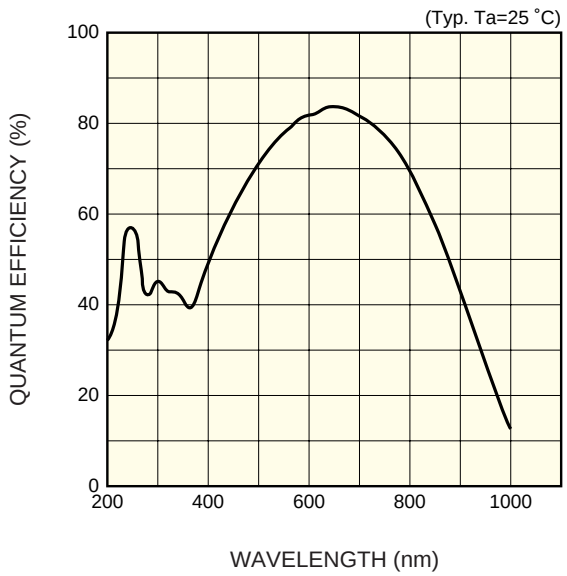
■ Quantum efficiency vs. wavelength



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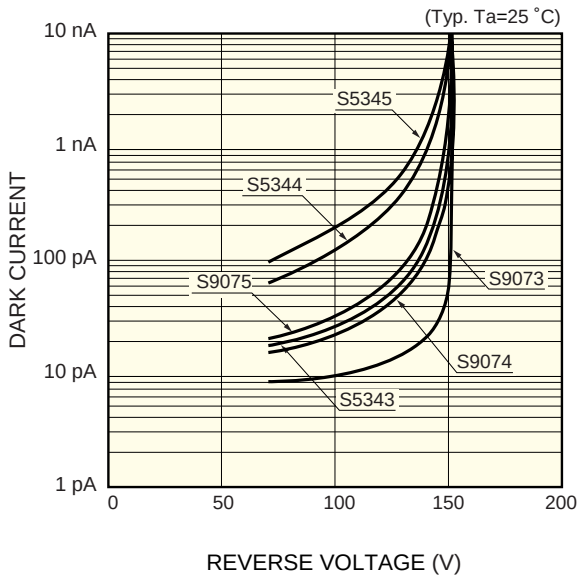
■ Dark current vs. reverse voltage



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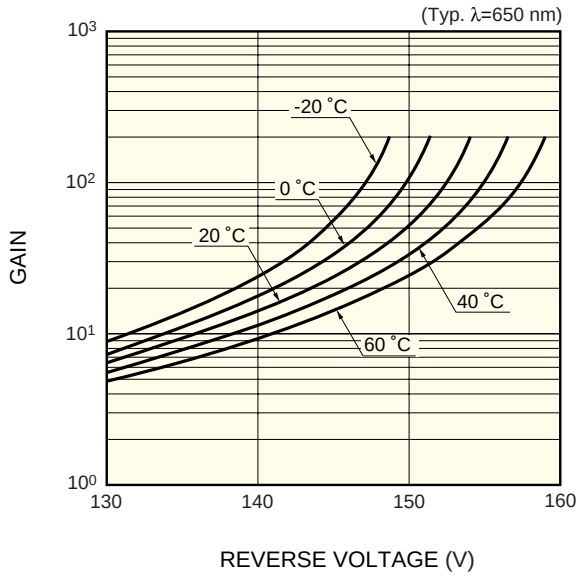
■ Gain vs. reverse voltage



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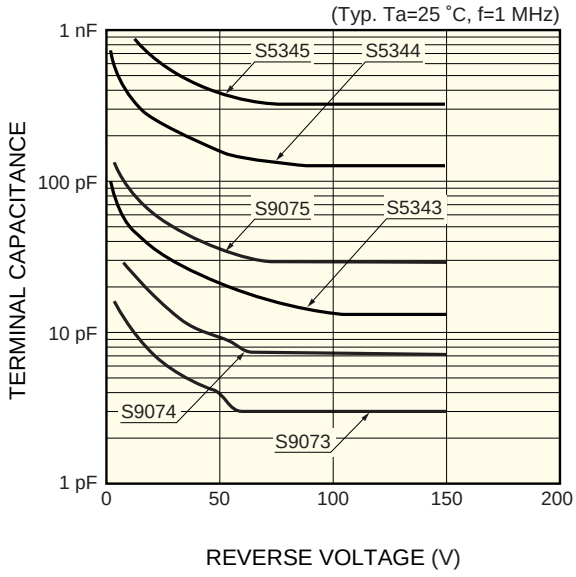
■ Terminal capacitance vs. reverse voltage



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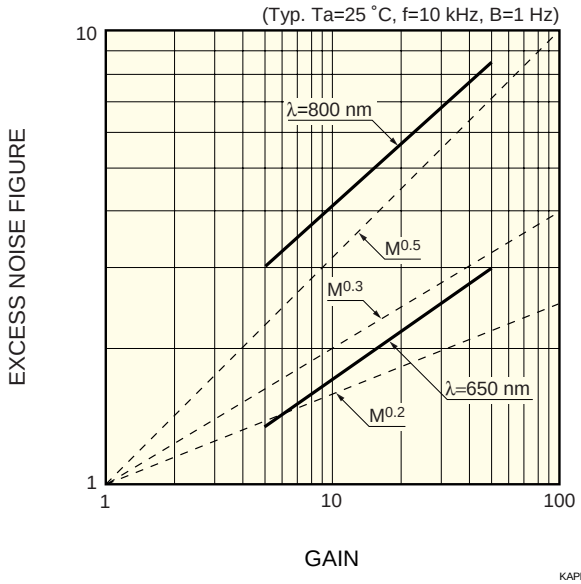
■ Excess noise figure vs. gain



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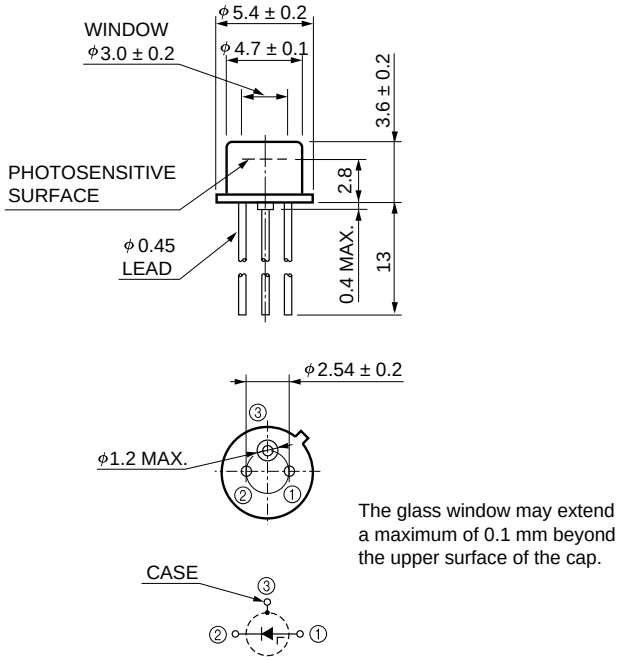
■ Dimensional outlines (unit: mm)

① S9073, S9074, S5343



The glass window may extend a maximum of 0.1 mm beyond the upper surface of the cap.

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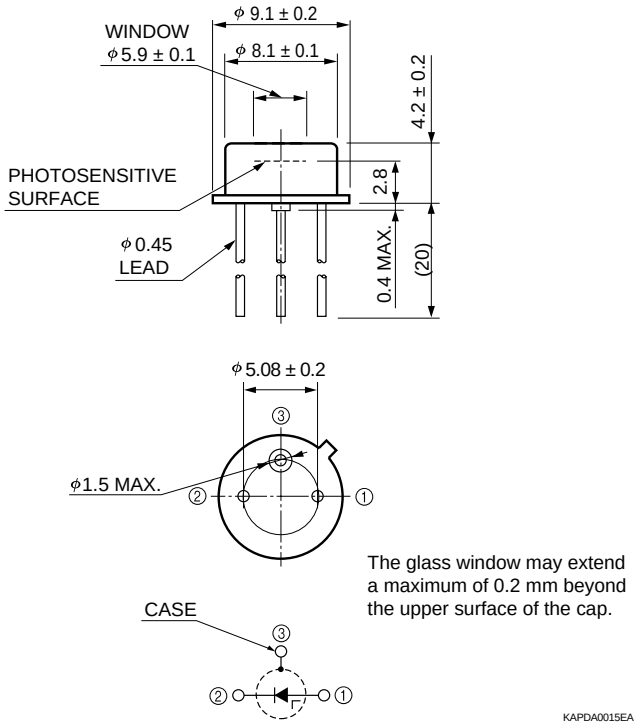
② S9075, S5344



The glass window may extend a maximum of 0.2 mm beyond the upper surface of the cap.

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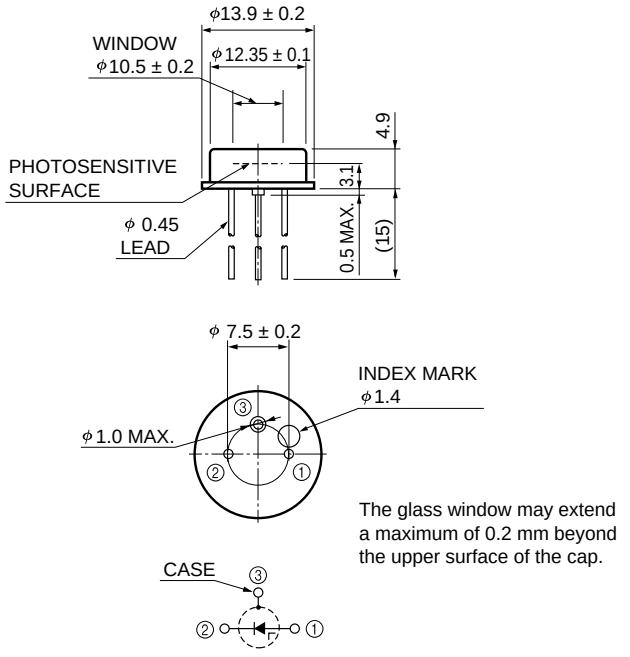
③ S5345



The glass window may extend a maximum of 0.2 mm beyond the upper surface of the cap.

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