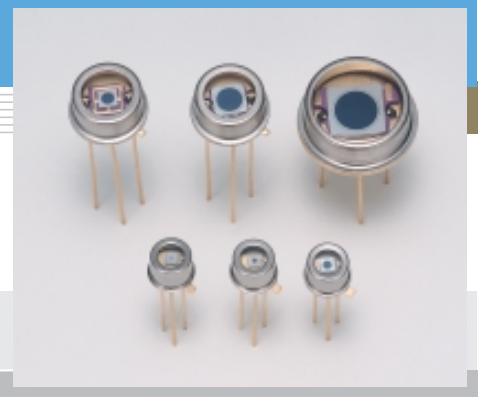


# Si APD

## 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		Absolute maximum ratings	
			area size (mm)	area (mm <sup>2</sup> )	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			φ5.0	19.6		

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

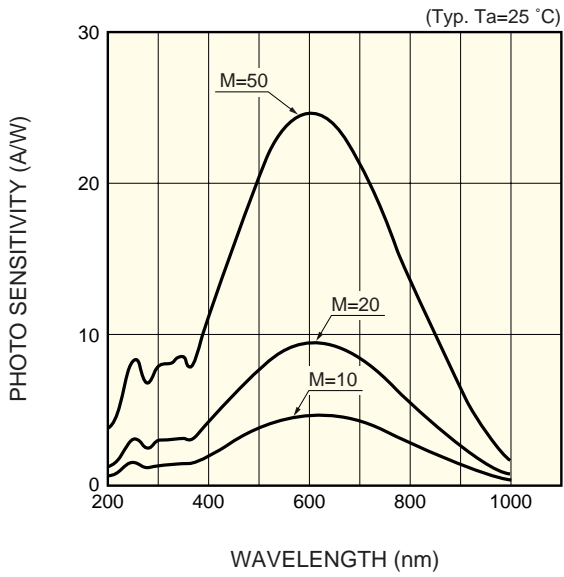
Type No.	Spectral response range $\lambda$ (nm)	Peak *3 sensitivity wavelength $\lambda_p$ (nm)	Photo sensitivity S M=1 $\lambda=620$ nm (A/W)	Quantum efficiency QE M=1 $\lambda=620$ nm (%)	Breakdown voltage VBR ID=100 $\mu$ A		Temp. coefficient of VBR (V/°C)	Dark *3 current ID		Cut-off *3 frequency fc RL=50 $\Omega$ (MHz)	Terminal *3 capacitance Ct (pF)	Excess *3 noise figure x $\lambda=650$ nm	Gain M $\lambda=650$ nm		
					Typ. (V)	Max. (V)		Typ. (nA)	Max. (nA)						
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														100	30
S5344														25	120
S5345														8	320

\*1: U: UV glass

\*2: Area in which a typical gain can be obtained.

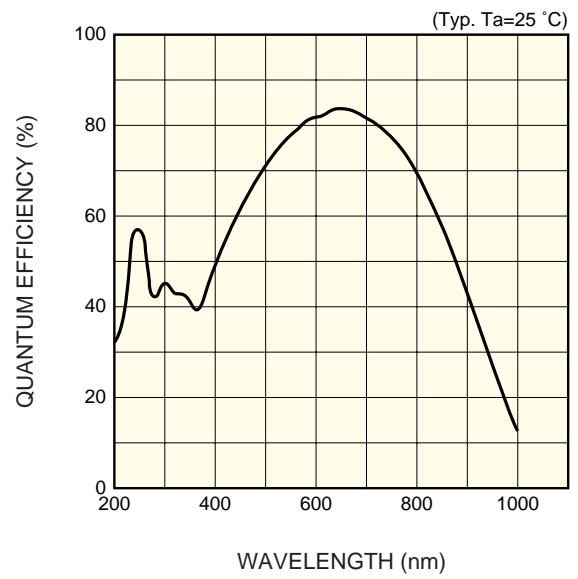
\*3: Values measured at a gain listed in the characteristics table.

■ Spectral response



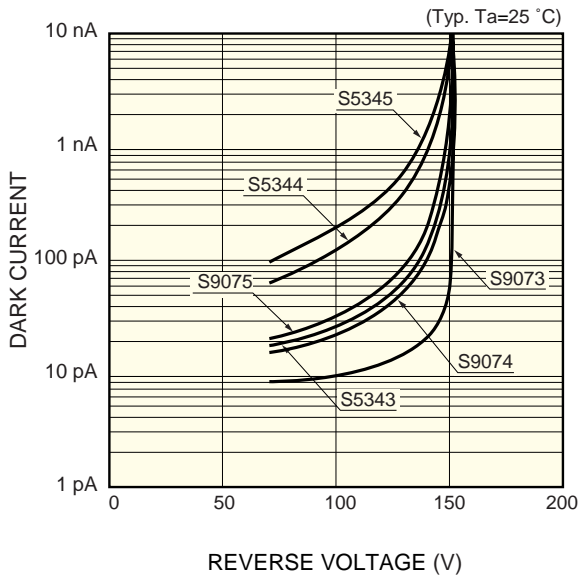
KAPDB0010ED

■ Quantum efficiency vs. wavelength



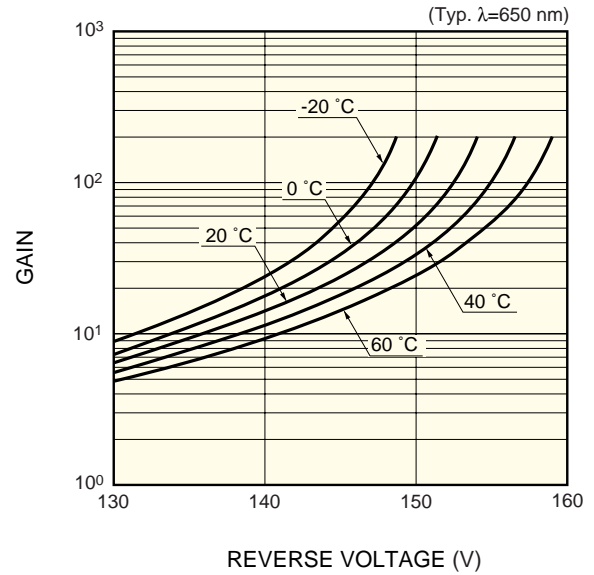
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■ Dark current vs. reverse voltage



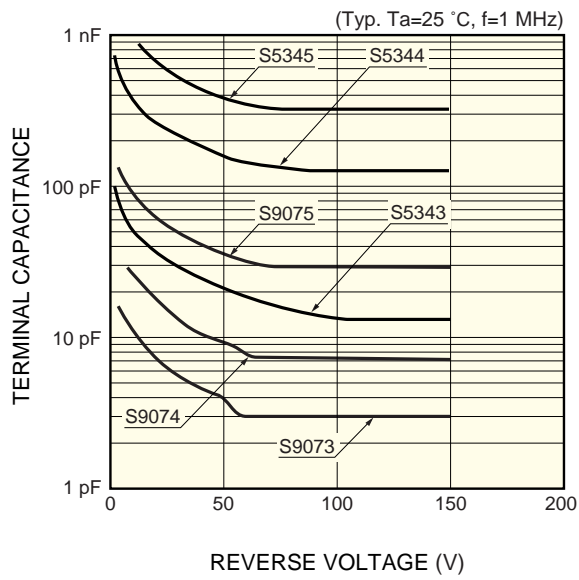
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■ Gain vs. reverse voltage

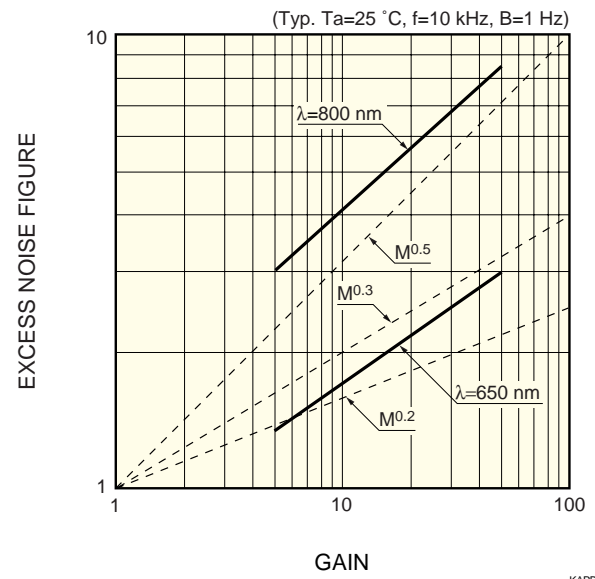


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■ Terminal capacitance vs. reverse voltage

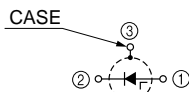
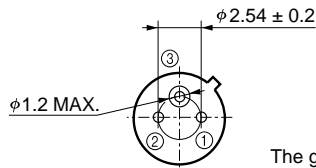
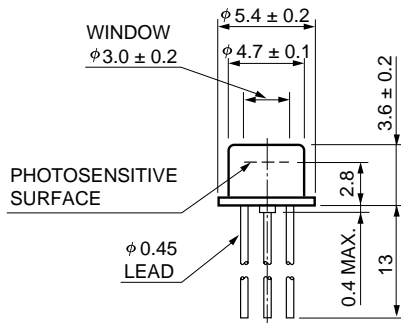


■ Excess noise figure vs. gain



## Dimensional outlines (unit: mm)

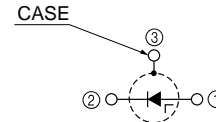
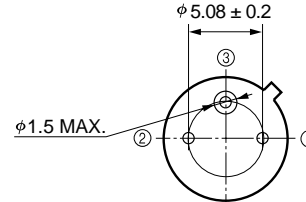
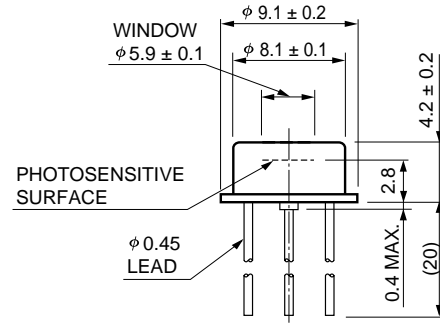
### ① S9073, S9074, S5343



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

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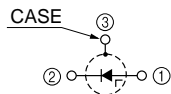
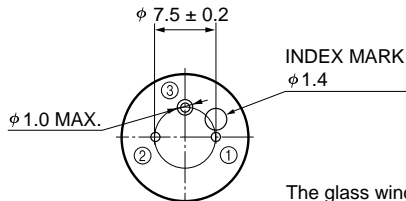
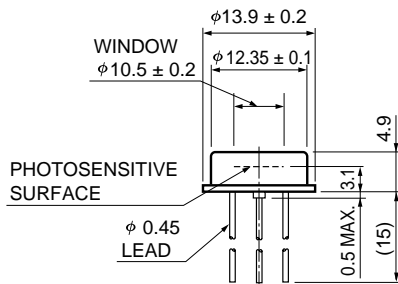
### ② S9075, S5344



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.

KAPDA0016EB

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