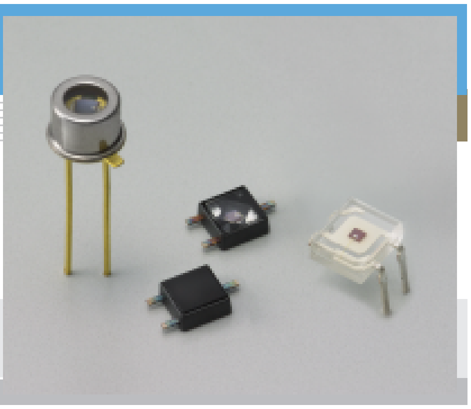
PHOTODIODE

GaAsP photodiode
Diffusion type

Short-wavelength type photodiode



Features

- Low dark current
- Narrow spectral response range

Applications

- Analytical instruments
- UV detection

■ General ratings / Absolute maximum ratings

Type No.	Dimensional outline/ Window material *	Package	Active area size (mm)	Effective active area (mm^2)	Absolute maximum ratings: Reverse voltage V_R Max. (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
G5645	①/K	TO-18	0.8 × 0.8	0.58	5	-30 to +80	-40 to +85
G5842	②	Plastic					
G6262	②	Plastic					
G7189	③/R	Plastic					

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

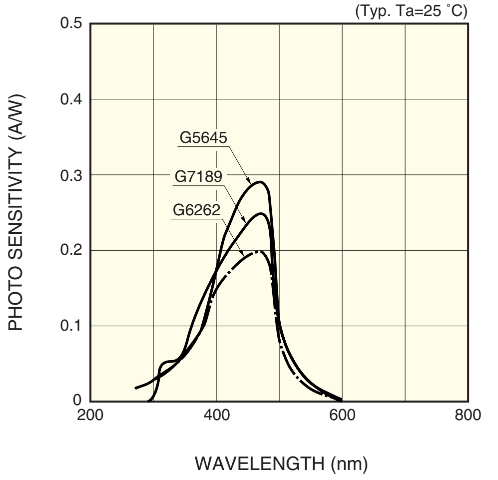
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λp (nm)	Photo sensitivity S (A/W)		Short circuit current Isc 1000 *lx*		Dark current I_D V_R=5 V Max. (pA)	Temp. coefficient of I_D T_{CID} (times/°C)	Rise time tf V_R=0 V R_L=1 kΩ (μs)	Terminal capacitance Ct V_R=0 V f=10 kHz (pF)	Shunt resistance Rsh V_R=10 mV		NEP ($W/Hz^{1/2}$)
			λp	GaP LED 560 nm	Min. (nA)	Typ. (nA)					Min. (GΩ)	Typ. (GΩ)	
G5645	300 to 580	470	0.28	0.05	60	90	50	1.07	3	80	10	80	2.3×10^{-15}
G5842	260 to 400	370	0.06	-	-	2							7.6×10^{-15}
G6262	280 to 580	470	0.2	0.05	45	65							2.3×10^{-15}
G7189	300 to 580	470	0.25	0.02	45	65							2.3×10^{-15}

* Window material K: borosilicate glass, R: resin coating

SOLID STATE DIVISION

HAMAMATSU

■ Spectral response



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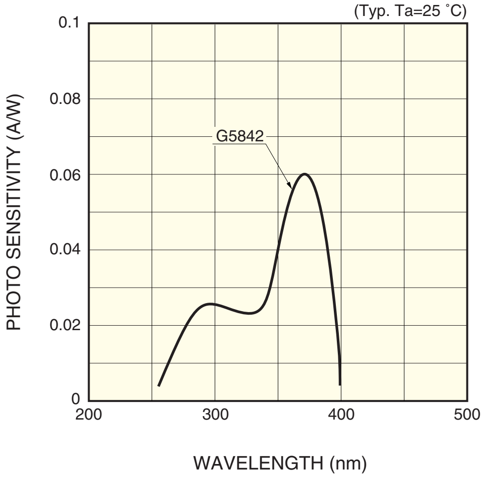

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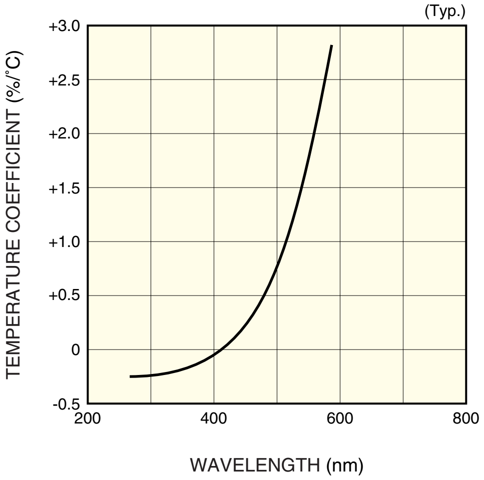
■ Photo sensitivity temperature characteristic



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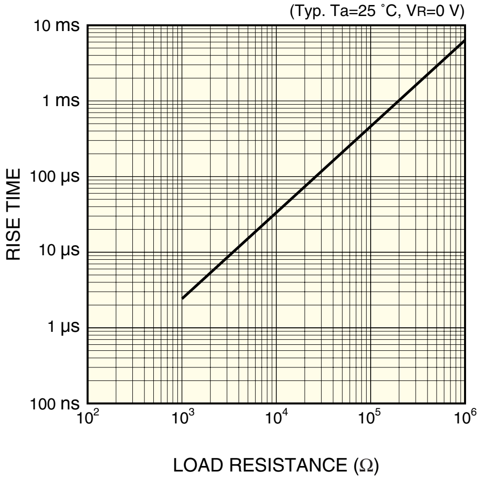
■ Rise time vs. load resistance



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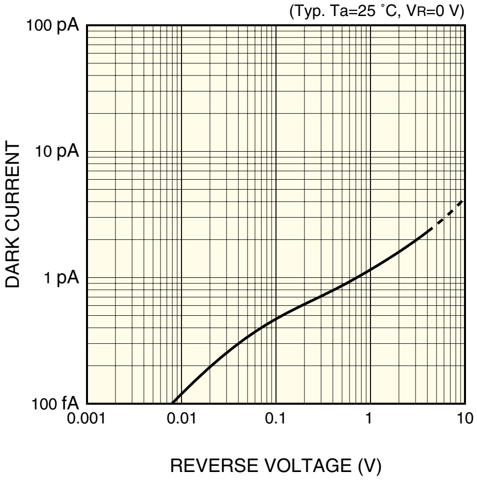
■ Dark current vs. reverse voltage



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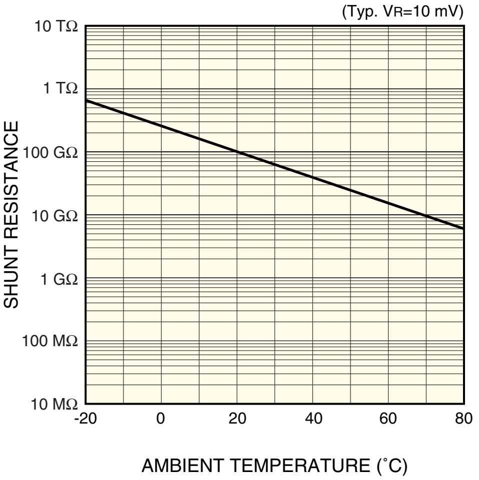
■ Shunt resistance vs. ambient temperature



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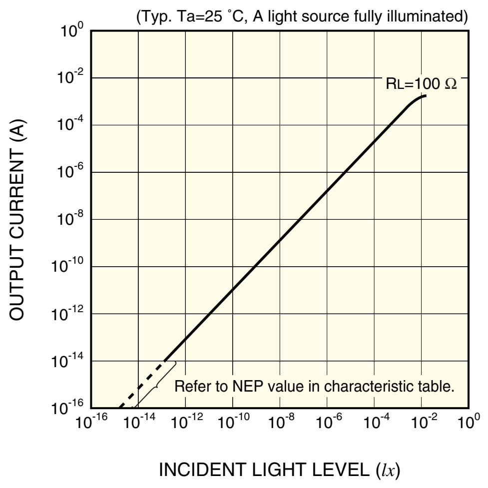
■ Short circuit current linearity



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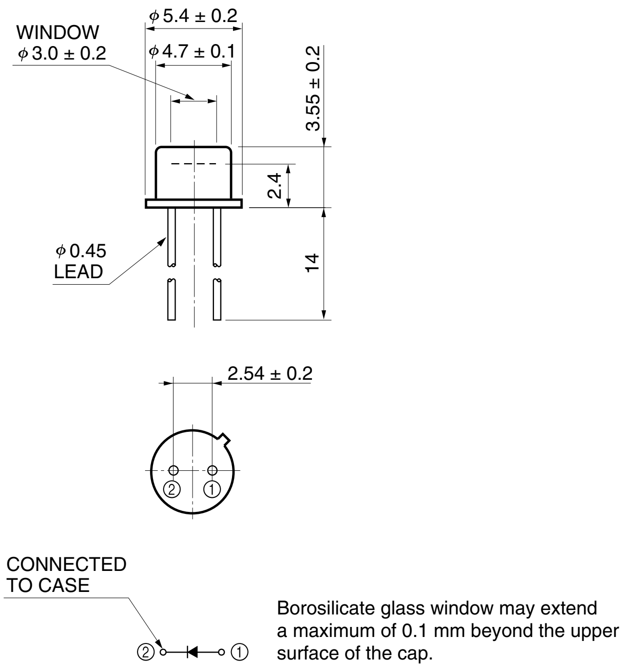
■ Dimensional outlines (unit: mm)

① G5645



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

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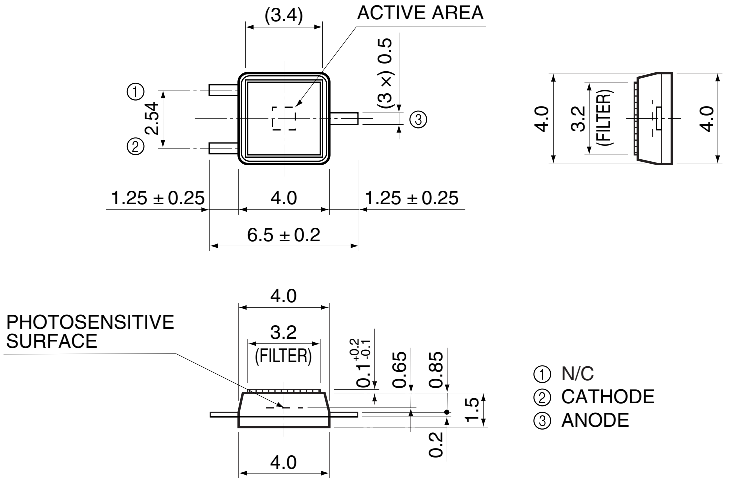
② G5842, G6262



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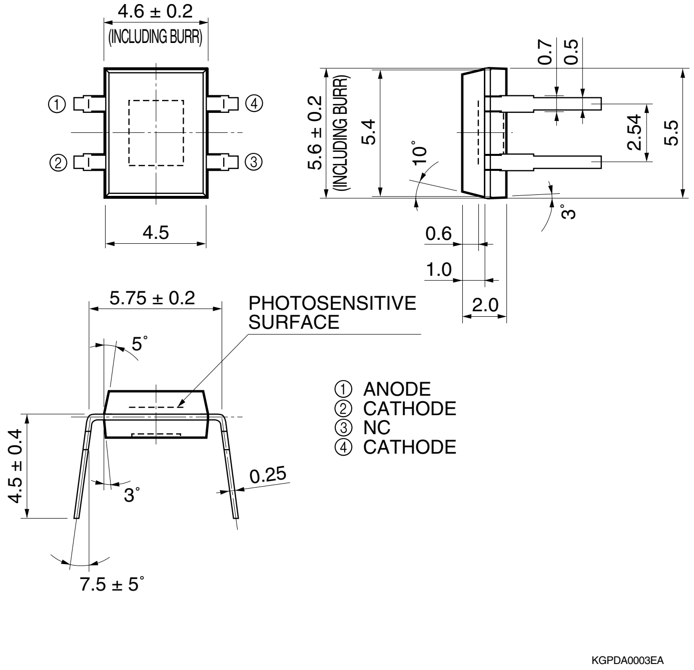
③ G7189



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