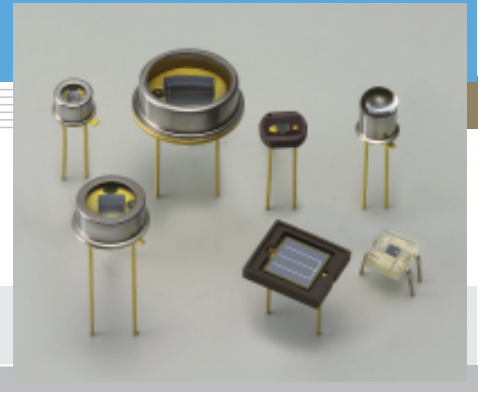


# GaAsP photodiode

## Diffusion type

Photodiode for visible light detection



### Features

- Low dark current
- High stability

### Applications

- Analytical instrument
- Color identification

### ■ General ratings / Absolute maximum ratings

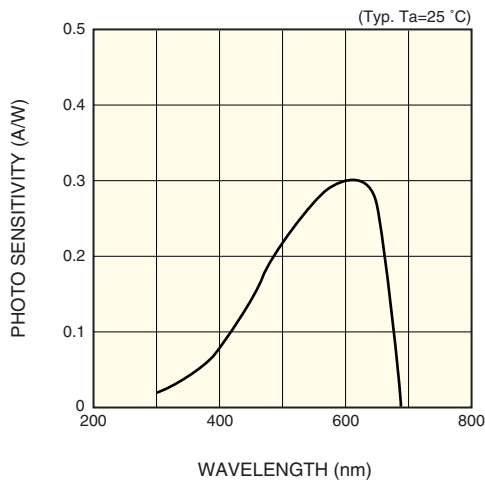
Type No.	Dimensional outline/ Window material *	Package	Active area size (mm)	Effective active area (mm <sup>2</sup> )	Absolute maximum ratings		
					Reverse voltage VR Max. (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
G1115	①/K	TO-18	1.3 × 1.3	1.66	5	-30 to +80	-40 to +85
G1116	②/K	TO-5	2.7 × 2.7	7.26			
G1117	③/K	TO-8	5.6 × 5.6	29.3			
G1118	④/R	Ceramic	1.3 × 1.3	1.66			
G1120	⑤/R	Ceramic	5.6 × 5.6	29.3			
G3067	⑥/L	TO-18	1.3 × 1.3	1.66			
G2711-01	⑦/R	Plastic	1.3 × 1.3	1.66			

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

Type No.	Spectral response range $\lambda$ (nm)	Peak sensitivity wavelength $\lambda_p$ (nm)	Photo sensitivity S (A/W)			Short circuit current Isc 100 k		Dark current Id Max.		Temp. coefficient of Id TCID (times/°C)	Rise time tr VR=0 V RL=1 k $\Omega$ ( $\mu$ s)	Terminal capacitance Ct VR=0 V f=10 kHz (pF)	Shunt resistance Rsh VR=10 mV		NEP (W/Hz <sup>1/2</sup> )
			$\lambda_p$	GaP LED 560 nm	He-Ne laser 633 nm	Min. ( $\mu$ A)	Typ. ( $\mu$ A)	VR=10 mV (pA)	VR=1 V (pA)				Min. (G $\Omega$ )	Typ. (G $\Omega$ )	
G1115	300 to 680	640	0.3	0.29	0.29	0.12	0.15	1	10	1.07	1	300	10	80	1.5 × 10 <sup>-15</sup>
G1116						0.45	0.6	2.5	25				4	30	2.5 × 10 <sup>-15</sup>
G1117						2	2.5	5	50				15	15	3.5 × 10 <sup>-15</sup>
G1118						0.12	0.15	1	10				1	80	1.5 × 10 <sup>-15</sup>
G1120						2	2.5	5	50				15	15	3.5 × 10 <sup>-15</sup>
G3067						0.75	0.95	1	10				1	80	1.5 × 10 <sup>-15</sup>
G2711-01						0.15	0.18	1	10				1	80	1.5 × 10 <sup>-15</sup>

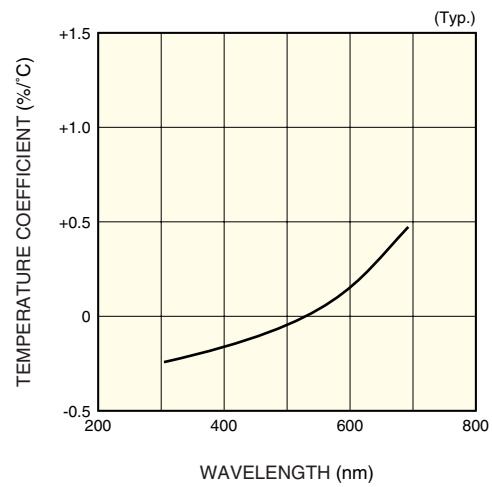
\* Window material K: borosilicate glass, L: lens type borosilicate glass, R: resin coating

## Spectral response



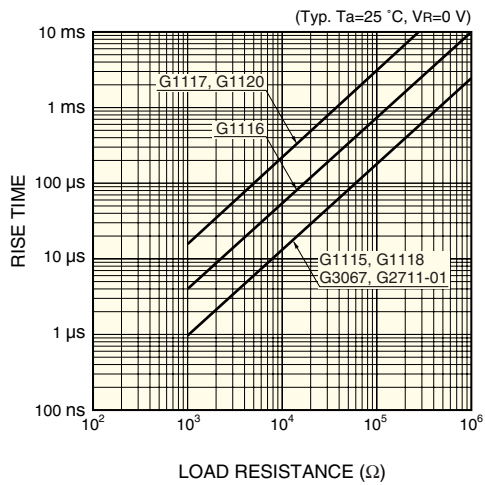
KGPD0019EA

## Photo sensitivity temperature characteristic



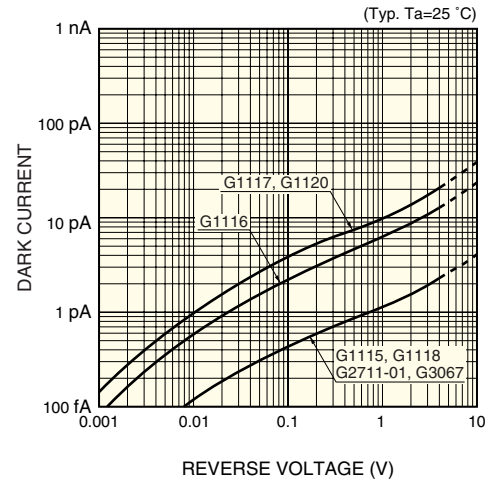
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## Rise time vs. load resistance



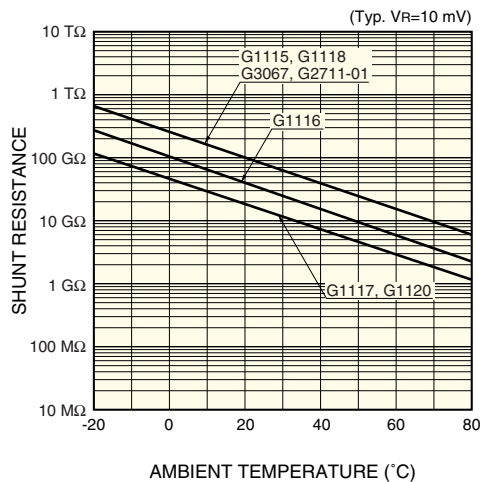
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## Dark current vs. reverse voltage



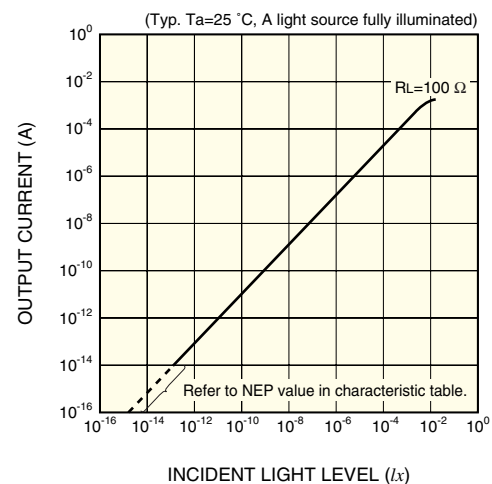
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## Shunt resistance vs. ambient temperature



KGPD0023EA

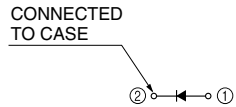
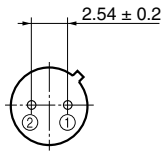
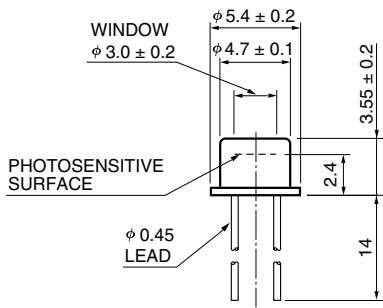
## Short circuit current linearity



KGPD0008EA

## Dimensional outlines (unit: mm)

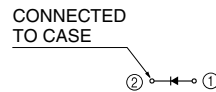
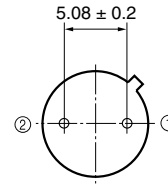
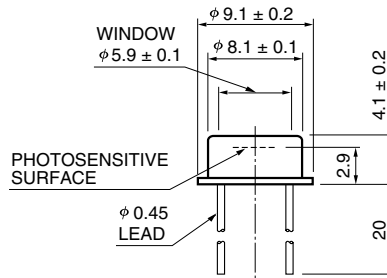
① G1115



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

KGPDA0012EA

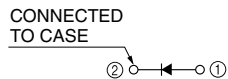
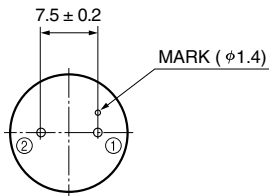
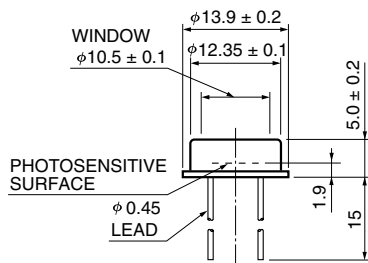
② G1116



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

KGPDA0013EA

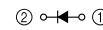
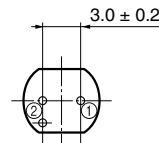
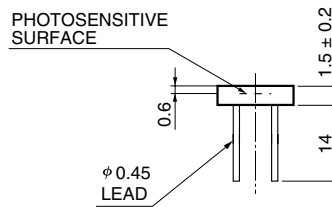
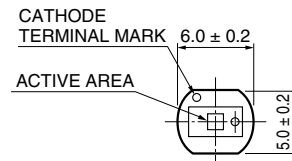
③ G1117



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

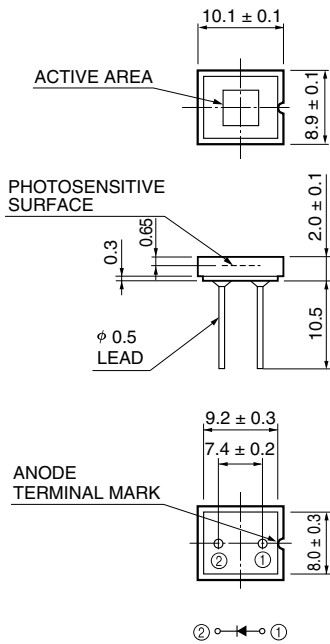
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④ G1118



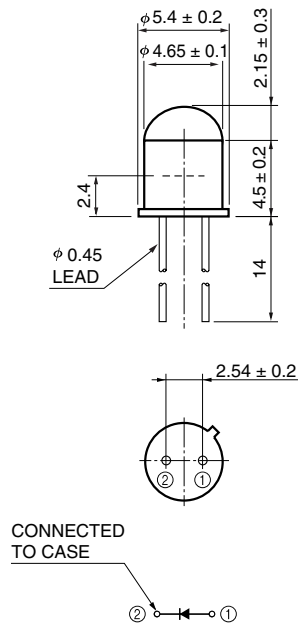
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## ⑤ G1120



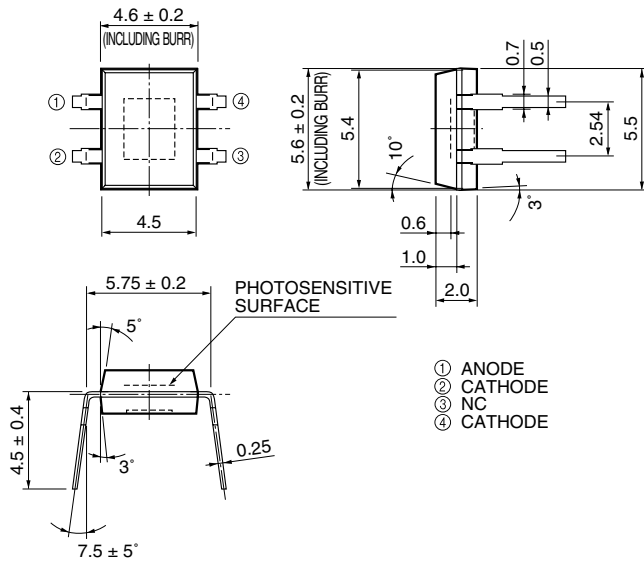
KGPDA0008EA

## ⑥ G3067



KGPDA0009EA

## ⑦ G2711-01



KGPDA0003EA

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