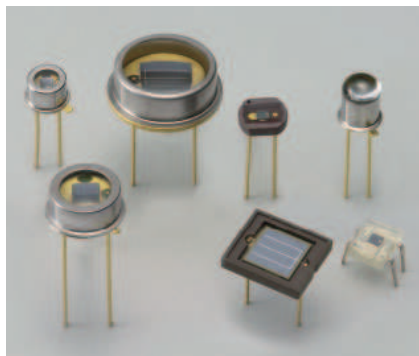


GaAsP photodiode

Diffusion type



Photodiode for visible light detection

Features

- Low dark current
- High stability

Applications

- Analytical instrument
- Color identification

Structure / Absolute maximum ratings

Type no.	Dimensional outline/ Window material*	Package	Photosensitive area size (mm)	Effective photosensitive area (mm ²)	Absolute maximum ratings		
					Reverse voltage V _R max (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°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			

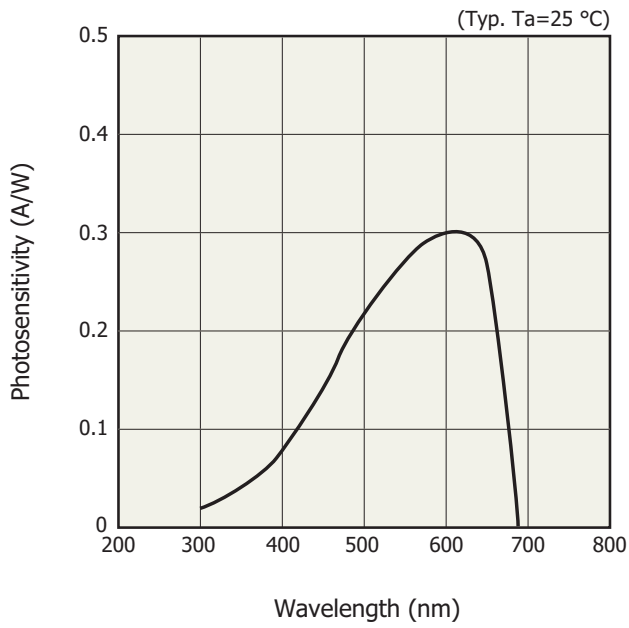
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

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

Type no.	Spectral response range λ (nm)	Peak sensitivity wavelength λ _p (nm)	Photosensitivity S (A/W)			Short circuit current I _{sc} 100 lx		Dark current I _D max.		Temp. coefficient of I _D T _{CID} (times/°C)	Rise time t _r V _R =0 V R _L =1 kΩ (μs)	Terminal capacitance C _t V _R =0 V f=10 kHz (pF)	Shunt resistance R _{sh} V _R =10 mV		Noise equivalent power NEP (W/Hz ^{1/2})
			λ _p	GaP LED 560 nm	He-Ne laser 633 nm	Min. (μA)	Typ. (μA)	V _R =10 mV (pA)	V _R =1 V (pA)				Min. (GΩ)	Typ. (GΩ)	
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 ⁻¹⁵
G1116						0.45	0.6	2.5	25				4	30	2.5 × 10 ⁻¹⁵
G1117						2	2.5	5	50				15	15	3.5 × 10 ⁻¹⁵
G1118						0.12	0.15	1	10				1	80	1.5 × 10 ⁻¹⁵
G1120						2	2.5	5	50				15	15	3.5 × 10 ⁻¹⁵
G3067						0.75	0.95	1	10				1	80	1.5 × 10 ⁻¹⁵
G2711-01						0.15	0.18	1	10				1	80	1.5 × 10 ⁻¹⁵

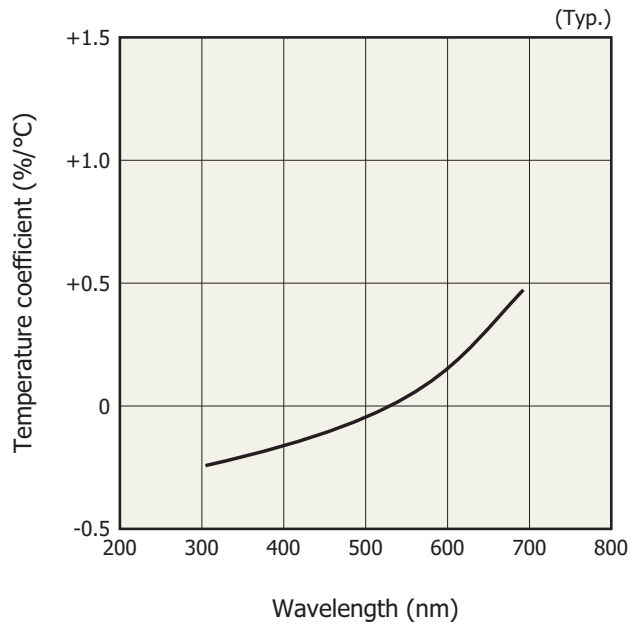
* Window material K: borosilicate glass, L: lens type borosilicate glass, R: resin coating

Spectral response



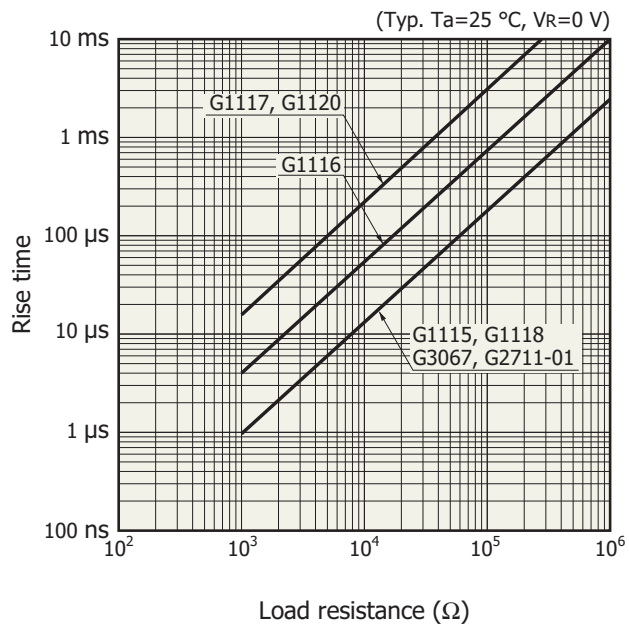
KGPD0019EA

Photosensitivity temperature characteristic



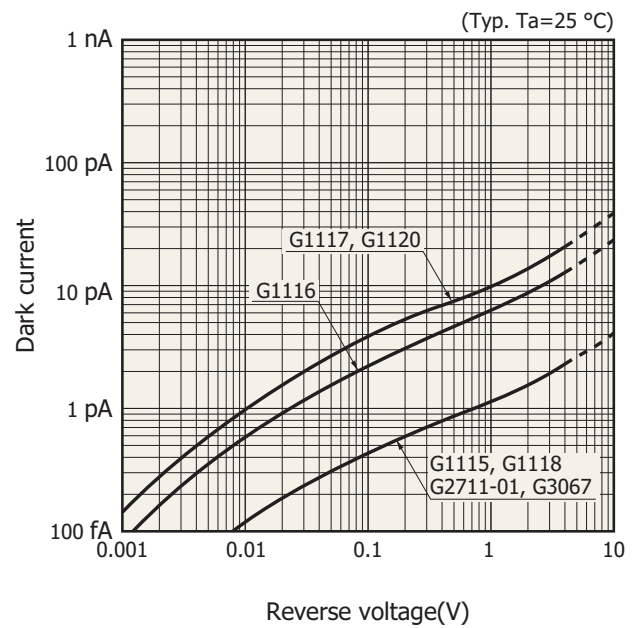
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Rise time vs. load resistance



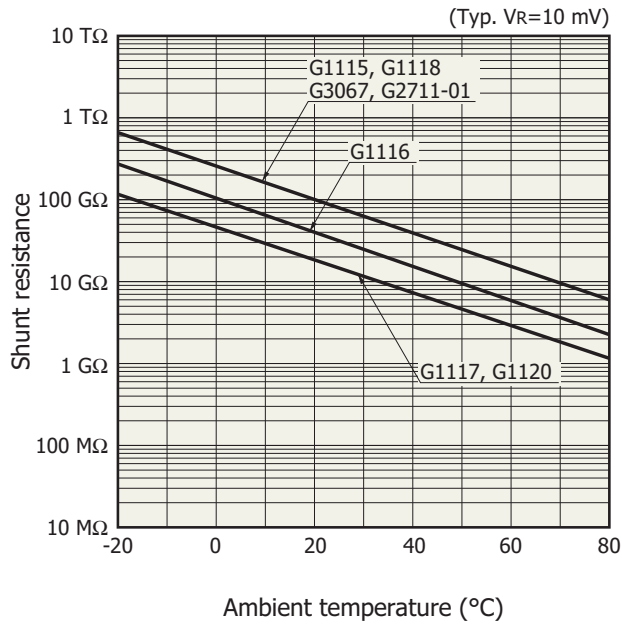
KGPD0021EA

Dark current vs. reverse voltage



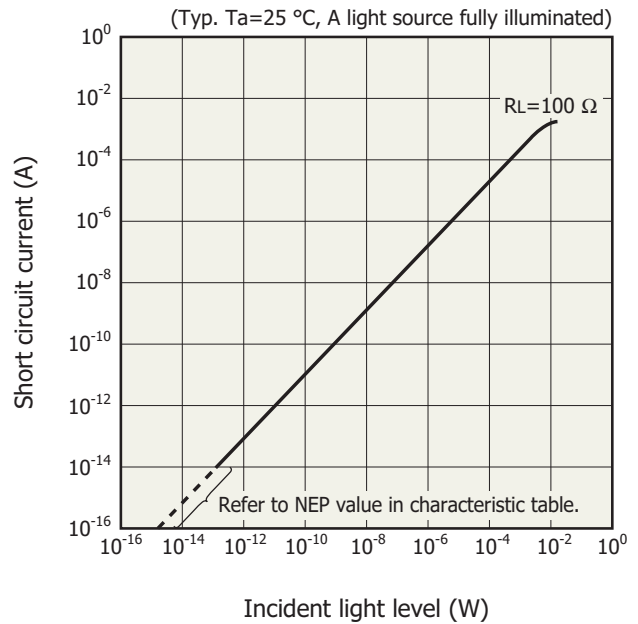
KGPD0022EA

Shunt resistance vs. ambient temperature



KGPD80023EA

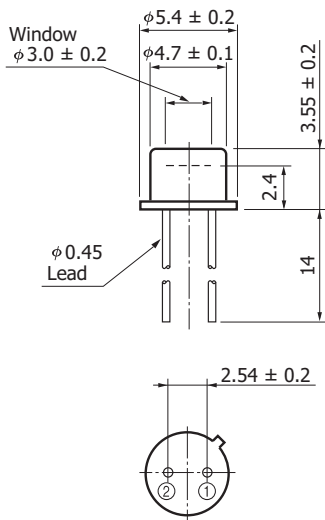
Short circuit current linearity



KGPD80008EB

Dimensional outline (unit: mm)

① G1115



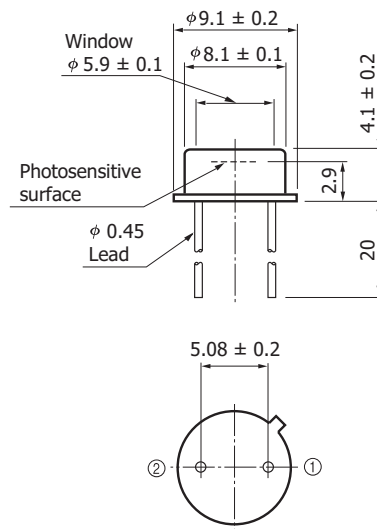
Connected to case



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

KGPD80012EA

② G1116



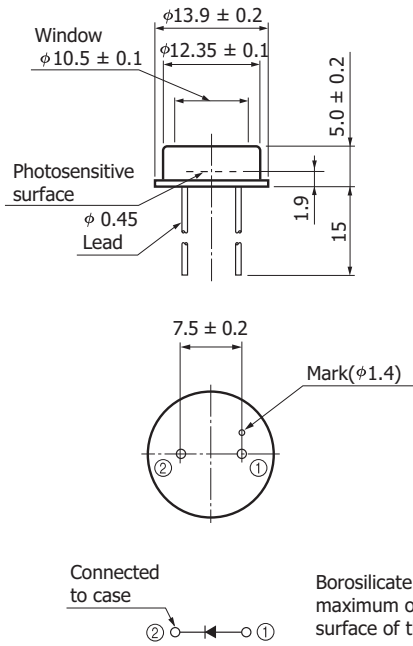
Connected to case



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

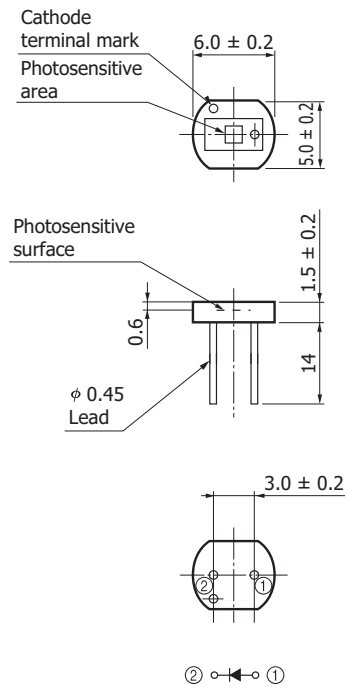
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③ G1117



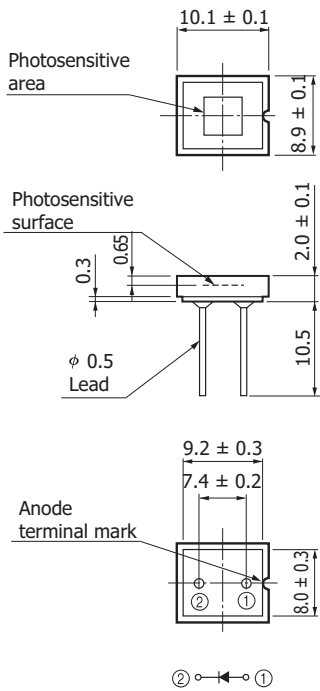
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④ G1118



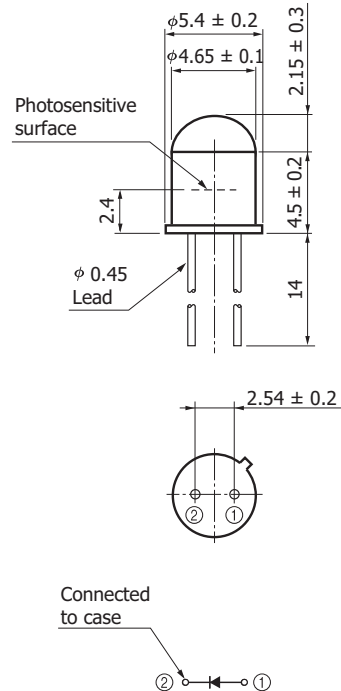
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⑤ G1120



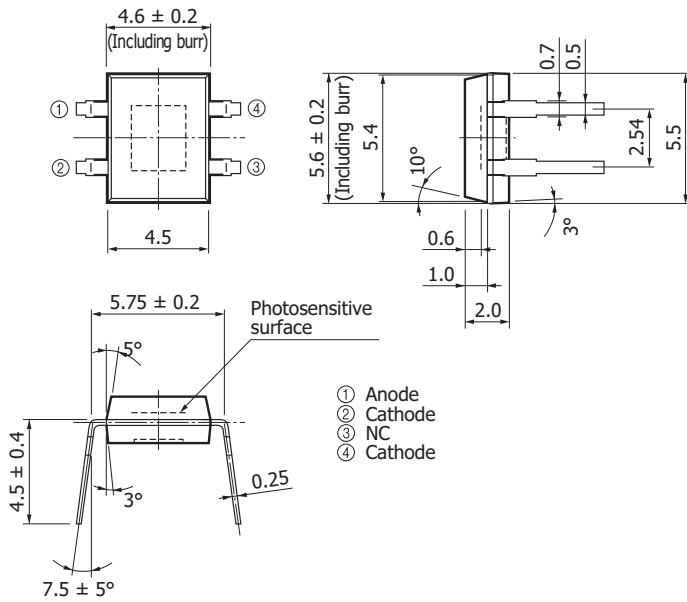
KGPDAA0008EA

⑥ G3067



KGPDAA0009EA

⑦ G2711-01



KGPD0003EA

Information described in this material is current as of May, 2012.

Product specifications are subject to change without prior notice due to improvements or other reasons. Before assembly into final products, please contact us for the delivery specification sheet to check the latest information.

Type numbers of products listed in the delivery specification sheets or supplied as samples may have a suffix "(X)" which means preliminary specifications or a suffix "(Z)" which means developmental specifications.

The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use.

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