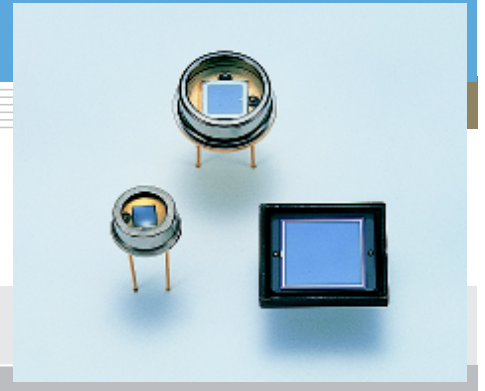


GaAsP photodiode

G1126-02, G1127-02, G2119

Schottky type for UV to visible range



Features

- Low dark current
- High UV sensitivity

Applications

- Analytical instruments
- Color identification
- UV detection

General ratings / Absolute maximum ratings

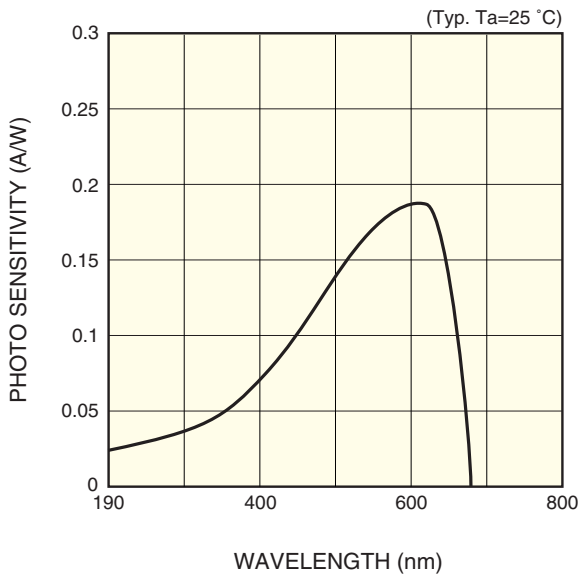
Type No.	Dimensional outline/ Window material	Package	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
					Reverse voltage VR Max. (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
G1126-02	①/Q *	TO-5	2.3 × 2.3	5.2	5	-10 to +60	-20 to +70
G1127-02	②/Q	TO-8	4.6 × 4.6	21			
G2119	③/Q	Ceramic	10.1 × 10.1	98			

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

Type No.	Spectral response range λ (nm)	Peak sensitivity wave-length λ_p (nm)	Photo sensitivity S (A/W)				Short circuit current Isc 100 lx		Dark current ID Max.		Temp. coefficient of ID TCID (times/°C)	Rise time tr VR=0 V RL=1 k Ω (μ s)	Terminal capacitance Ct VR=0 V f=10 kHz (pF)	Shunt resistance Rsh VR=10 mV		NEP (W/Hz ^{1/2})
			λ_p	Hg line 254 nm	GaP LED 560 nm	He-Ne laser 633 nm	Min. (μ A)	Typ. (μ A)	VR=10 mV (pA)	VR=1 V (pA)				Min. (G Ω)	Typ. (G Ω)	
G1126-02	190 to 680	610	0.18	0.035	0.17	0.17	0.25	0.3	5	50	1.07	3.5	1800	2	15	5.8×10^{-15}
G1127-02							0.9	1.2	10	100				1	8	8.0×10^{-15}
G2119							5	6	100	5000				0.1	0.7	2.4×10^{-14}

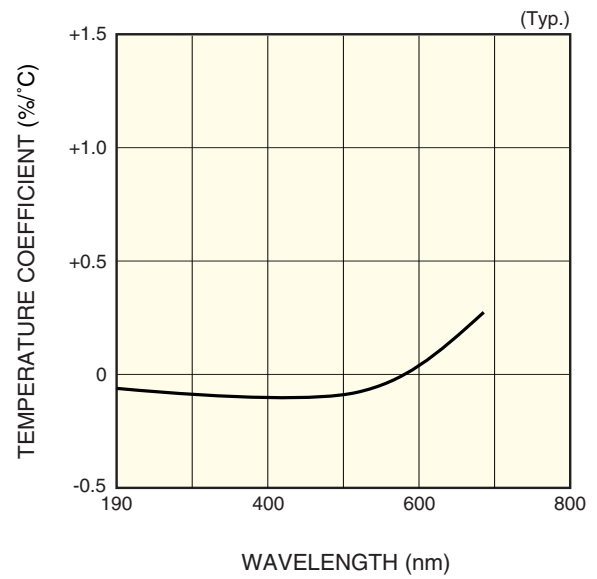
* Window material Q: quartz glass

■ Spectral response



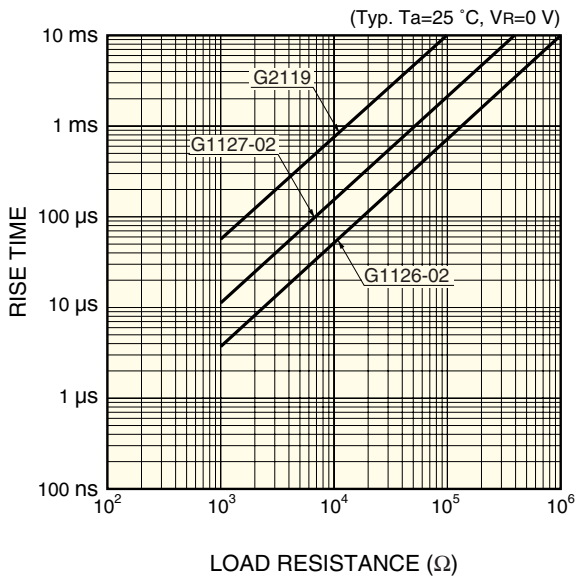
KGPDB0034EA

■ Photo sensitivity temperature characteristic



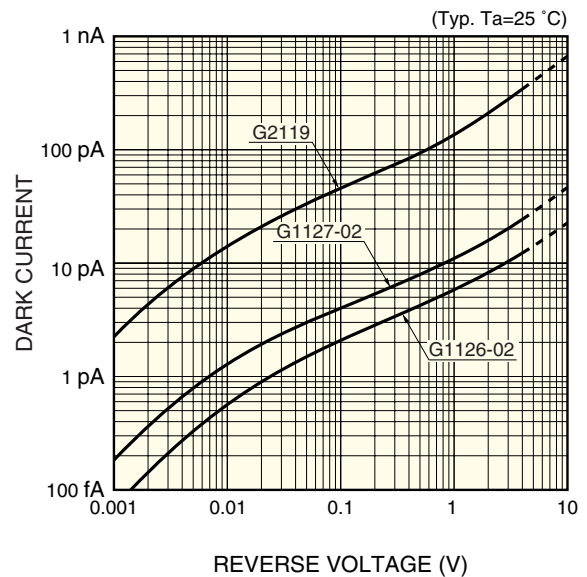
KGPDB0035EA

■ Rise time vs. load resistance



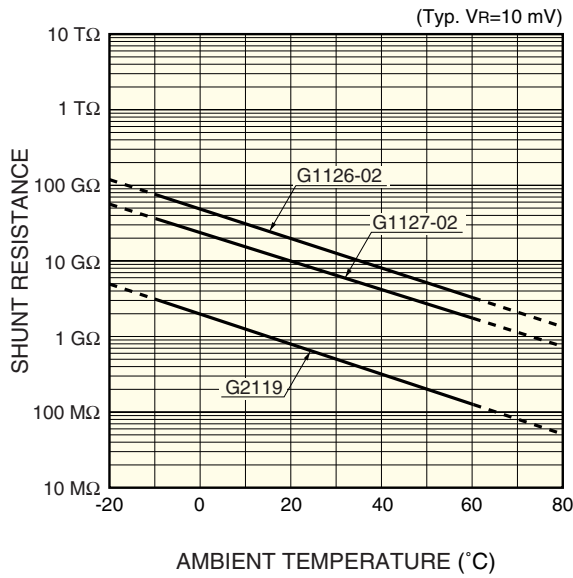
KGPDB0036EA

■ Dark current vs. reverse voltage



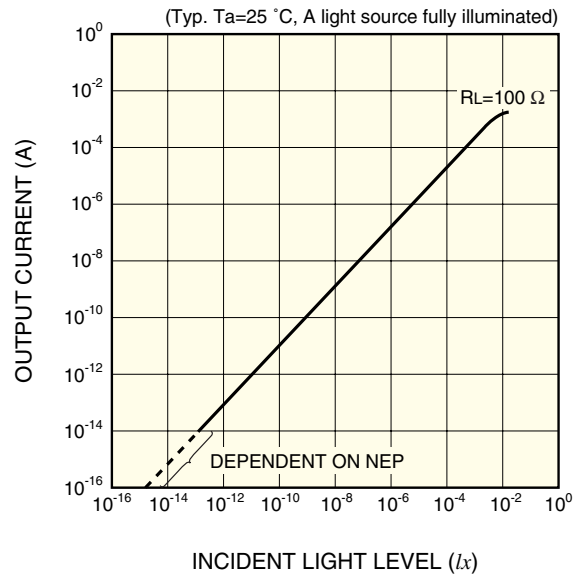
KGPDB0037EA

■ Shunt resistance vs. ambient temperature



KGPDB0038EA

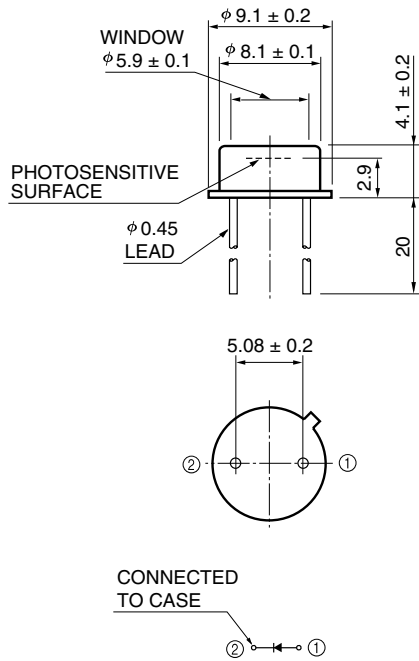
■ Short circuit current linearity



KGPDB0008EA

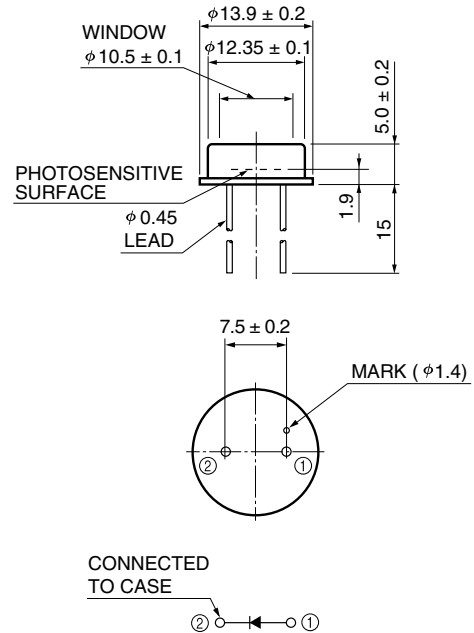
■ Dimensional outlines (unit: mm)

① G1126-02



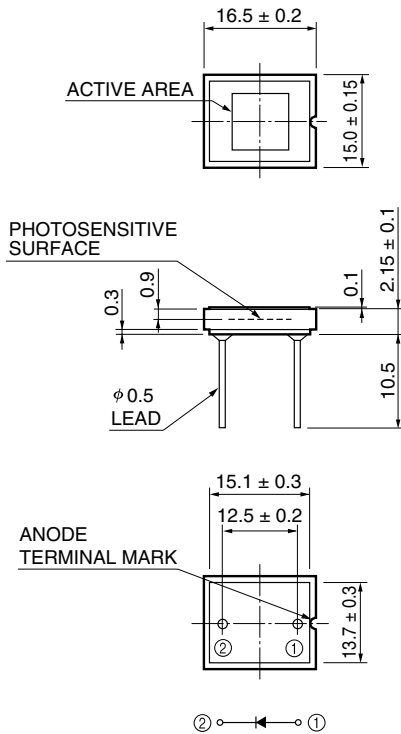
KGPDA0006EA

② G1127-02



KGPDA0007EA

③ G2119



KGPD A0011EA

HAMAMATSU

Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2001 Hamamatsu Photonics K.K.

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Hamamatsu City, 435-8558 Japan, Telephone: (81) 053-434-3311, Fax: (81) 053-434-5184, <http://www.hamamatsu.com>

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 08152-3750, Fax: (49) 08152-2658

France: Hamamatsu Photonics France S.A.R.L.: 8, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777

North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741