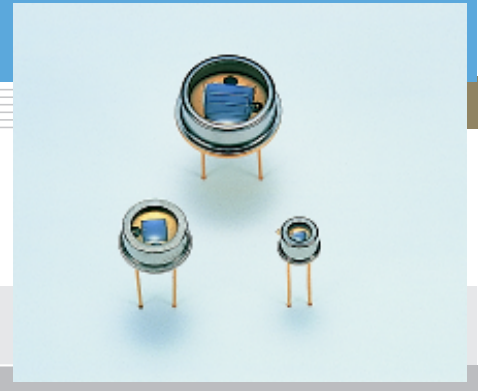


# GaP photodiode G1961, G1962, G1963

## Schottky type



### Features

- Low dark current
- High UV sensitivity

### Applications

- Analytical instruments
- UV detection

### General ratings / Absolute maximum ratings

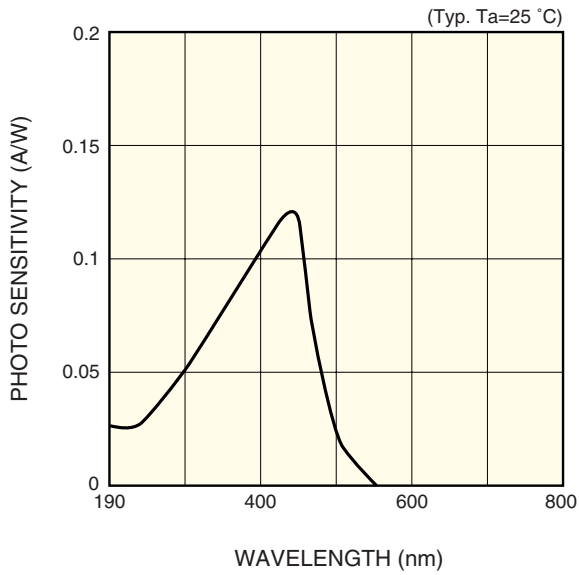
Type No.	Dimensional outline/ Window material	Package	Active area size (mm)	Effective active area (mm <sup>2</sup> )	Absolute maximum ratings		
					Reverse voltage V <sub>R</sub> Max. (V)	Operating temperature T <sub>op</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
G1961	①/Q *	TO-18	1.1 × 1.1	1.0	5	-10 to +60	-20 to +70
G1962	②/Q	TO-5	2.3 × 2.3	5.2			
G1963	③/Q	TO-8	4.6 × 4.6	21			

### Electrical and optical characteristics (Typ. T<sub>a</sub>=25 °C, unless otherwise noted)

Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ <sub>p</sub> (nm)	Photo sensitivity S (A/W)			Short circuit current I <sub>sc</sub> 1000 I <sub>x</sub>		Dark current I <sub>D</sub> Max.		Temp. coefficient of I <sub>D</sub> T <sub>CD</sub> (times/°C)	Rise time t <sub>r</sub> V <sub>R</sub> =0 V R <sub>L</sub> =1 kΩ (μs)	Terminal capacitance C <sub>t</sub> V <sub>R</sub> =0 V f=10 kHz (pF)	Shunt resistance R <sub>sh</sub> V <sub>R</sub> =10 mV		NEP (W/Hz <sup>1/2</sup> )
			λ <sub>p</sub>	Hg line 254 nm	400 nm	Min. (μA)	Typ. (μA)	V <sub>R</sub> =10 mV (pA)	V <sub>R</sub> =1 V (pA)				Min. (GΩ)	Typ. (GΩ)	
G1961	190 to 550	440	0.12	0.03	0.1	0.04	0.05	2.5	25	1.11	5	400	4	40	5.4 × 10 <sup>-15</sup>
G1962						0.23	0.3	5	50				2	20	7.6 × 10 <sup>-15</sup>
G1963						0.75	0.9	10	100				1	1	1.1 × 10 <sup>-14</sup>

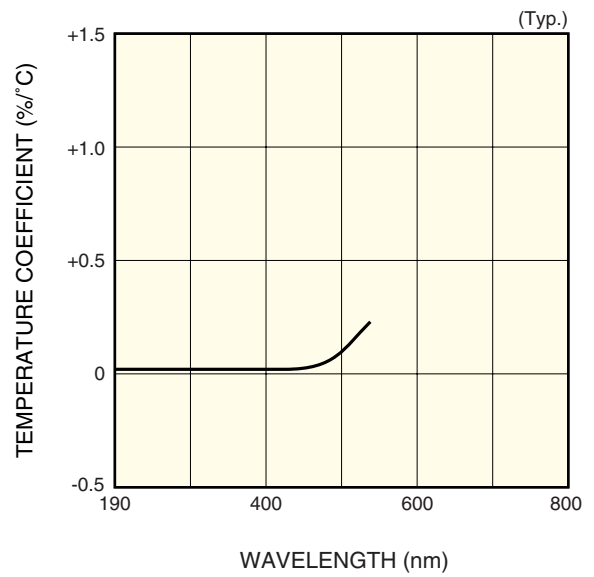
\* Window material Q: quartz glass

■ Spectral response



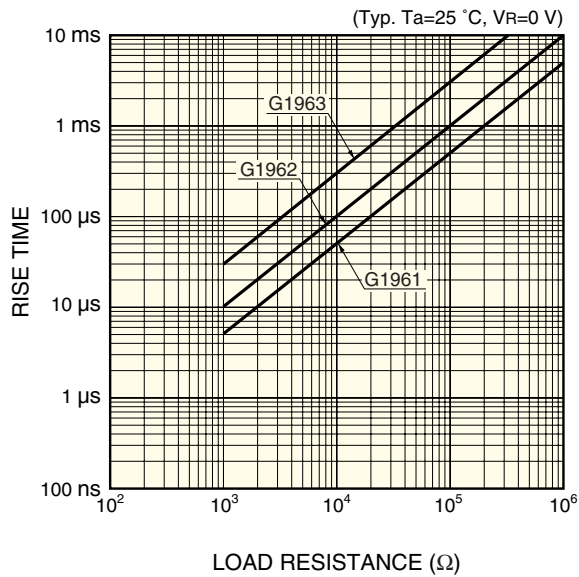
KGPD0014EA

■ Photo sensitivity temperature characteristic



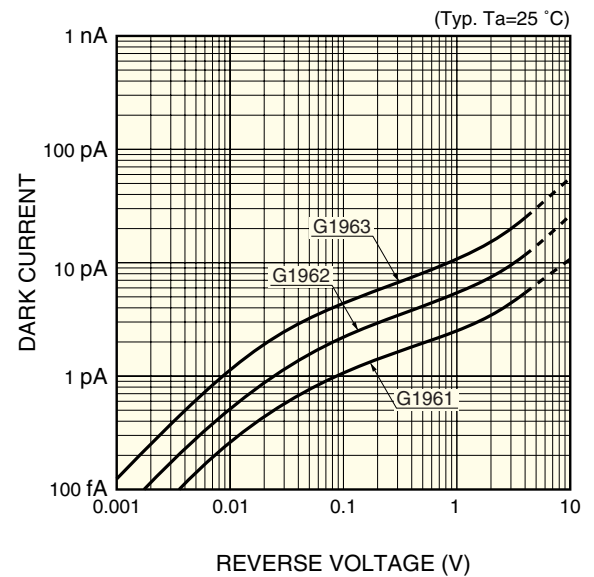
KGPD0017EB

■ Rise time vs. load resistance



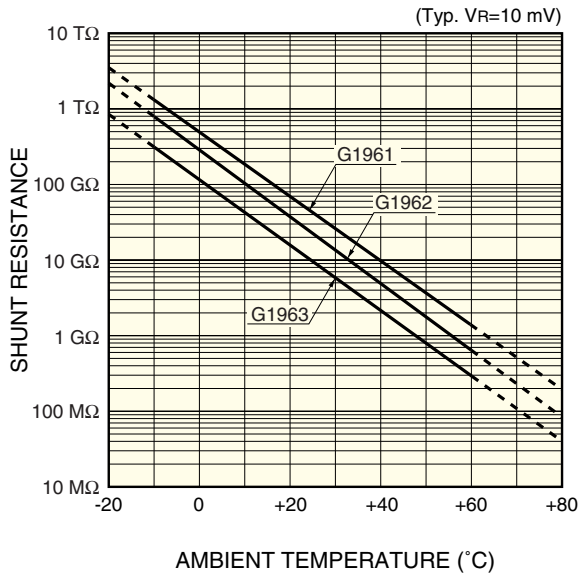
KGPD0015EA

■ Dark current vs. reverse voltage



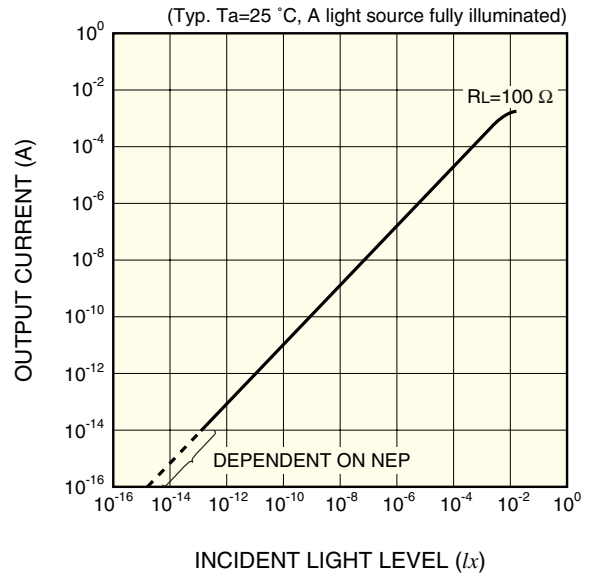
KGPD0016EA

■ Shunt resistance vs. ambient temperature



KGPDB0018EA

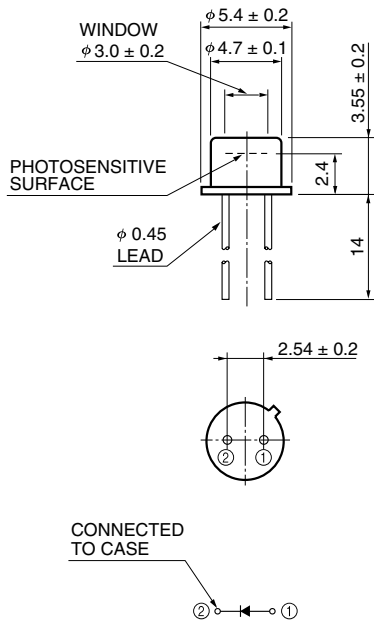
■ Short circuit current linearity



KGPDB0008EA

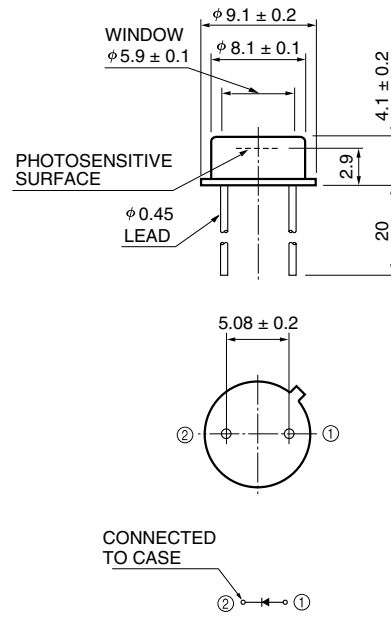
■ Dimensional outlines (unit: mm)

① G1961



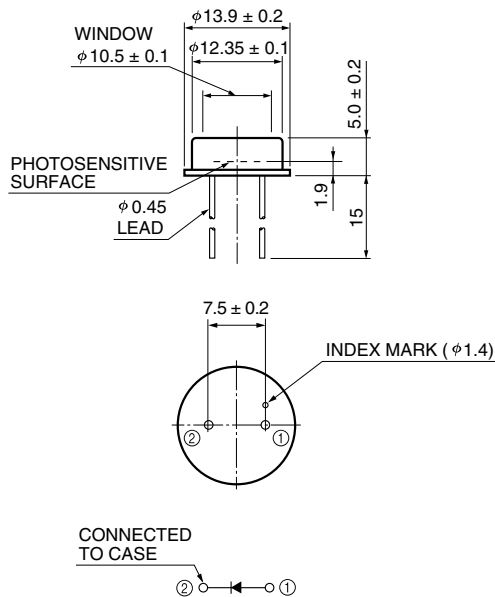
KGPDA0005EA

② G1962



KGPDA0006EA

## ③ G1963



KGPD0007EA

**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

Cat. No. KGPD1007E01  
Apr. 2001 DN