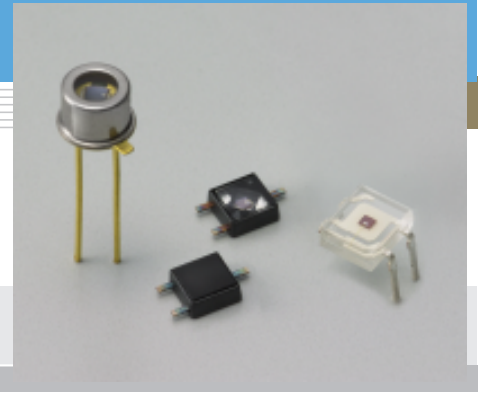


# GaAsP photodiode

## Diffusion type

Short-wavelength type photodiode



### Features

- Low dark current
- Narrow spectral response range

### Applications

- Analytical instruments
- UV detection

#### ■ General ratings / Absolute maximum ratings

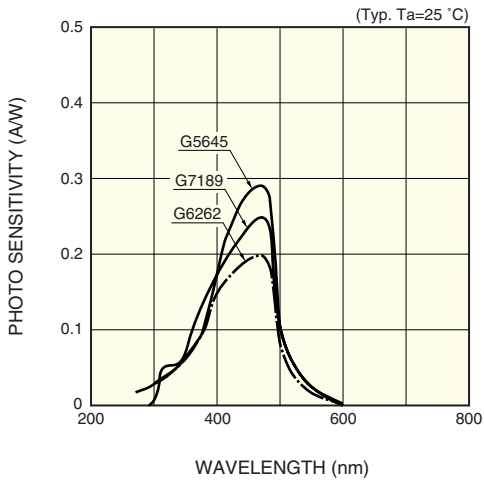
Type No.	Dimensional outline/ Window material *	Package	Active area size (mm)	Effective active area (mm <sup>2</sup> )	Absolute maximum ratings		
					Reverse voltage V <sub>R</sub> Max. (V)	Operating temperature T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
G5645	①/K	TO-18	0.8 × 0.8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

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

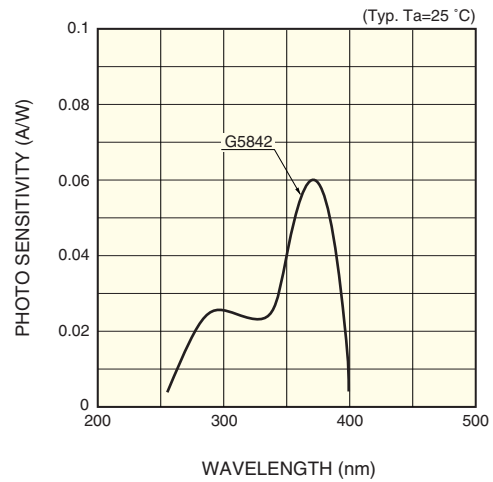
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ <sub>p</sub> (nm)	Photo sensitivity S (A/W)		Short circuit current I <sub>sc</sub> 1000 lx		Dark current I <sub>D</sub> V <sub>R</sub> =5 V Max. (pA)	Temp. coefficient of I <sub>D</sub> T <sub>CID</sub> (times/°C)	Rise time t <sub>f</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>	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 <sup>-15</sup>
G5842	260 to 400	370	0.06	-	-	2							7.6 × 10 <sup>-15</sup>
G6262	280 to 580	470	0.2	0.05	45	65							2.3 × 10 <sup>-15</sup>
G7189	300 to 580	470	0.25	0.02	45	65							2.3 × 10 <sup>-15</sup>

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

■ Spectral response

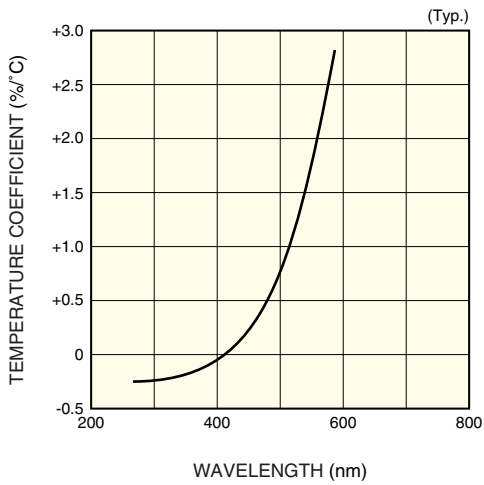


KGPDB0029EA



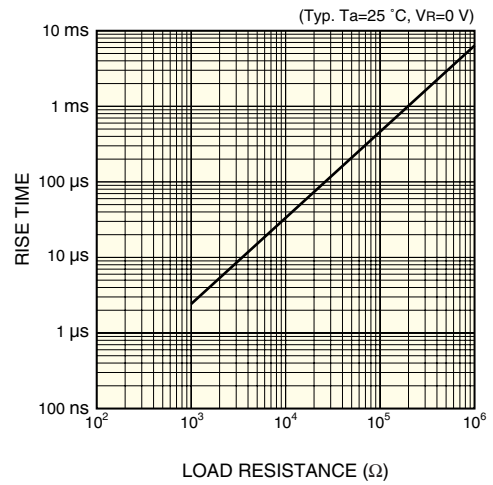
KGPDB0001EC

■ Photo sensitivity temperature characteristic



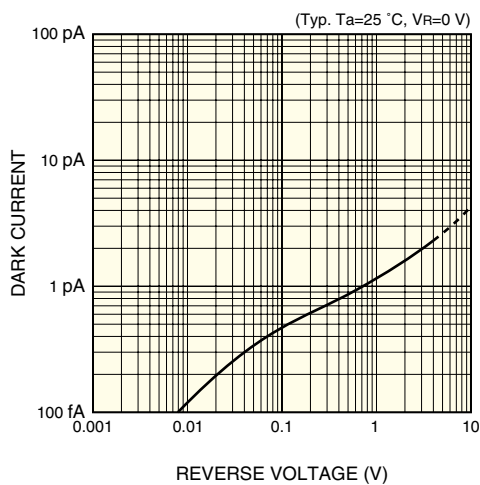
KGPDB0030EA

■ Rise time vs. load resistance



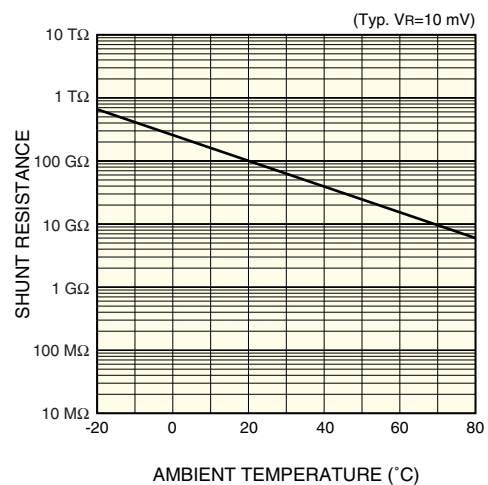
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■ Dark current vs. reverse voltage



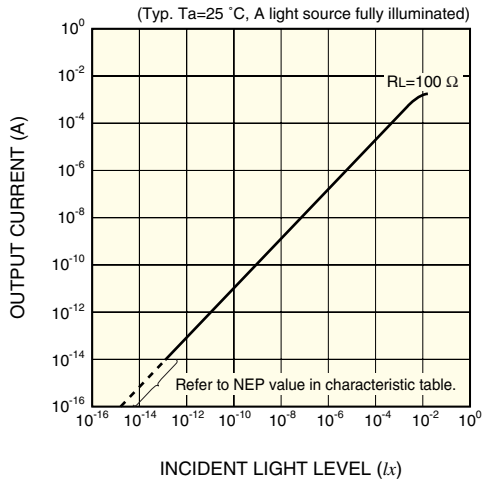
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■ Shunt resistance vs. ambient temperature



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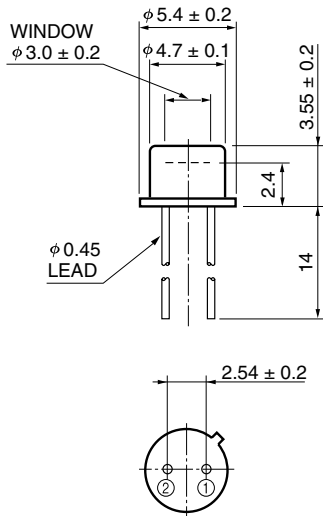
■ Short circuit current linearity



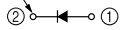
KGPD80008EA

■ Dimensional outlines (unit: mm)

① G5645



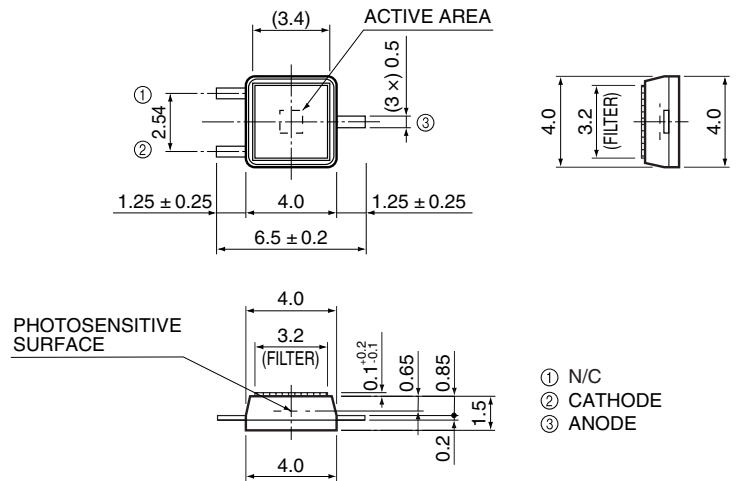
CONNECTED TO CASE



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

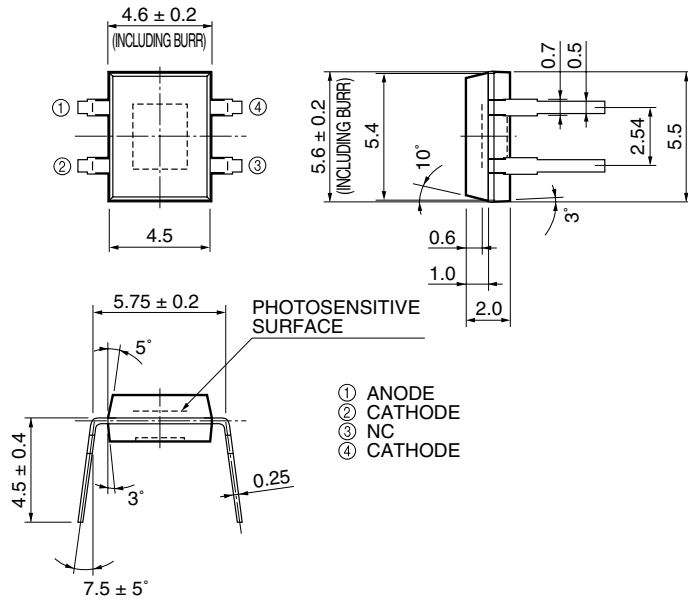
KGPD40012EA

② G5842, G6262



KGPD40004EA

③ G7189



KGPD40003EA

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