

# GaP photodiode G1961, G1962, G1963

Schottky type



## Features

- Low dark current
- High UV sensitivity

## Applications

- Analytical instruments
- UV detection

### General ratings / Absolute maximum ratings

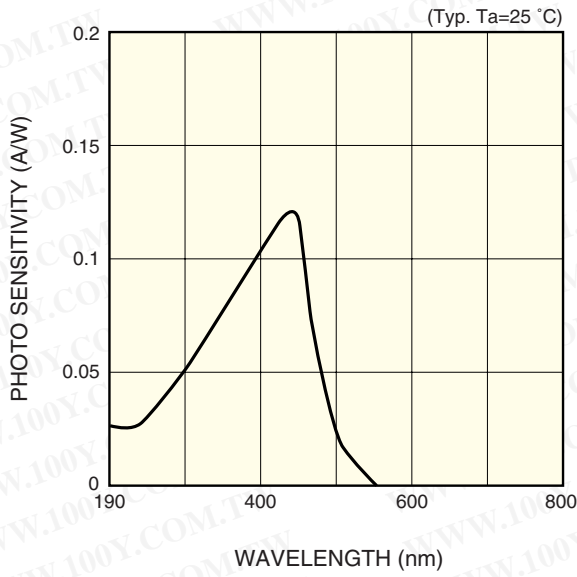
Type No.	Dimensional outline/ Window material	Package	Active area size (mm)	Effective active area (mm <sup>2</sup> )	Absolute maximum ratings		
					Reverse voltage V <sub>R</sub> Max. (V)	Operating temperature T <sub>op</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
G1961	①/Q *	TO-18	1.1 × 1.1	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> (μA)	Dark current I <sub>D</sub> Max. (pA)		Temp. coefficient of I <sub>D</sub> T <sub>CID</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 (GΩ)		NEP (W/Hz <sup>1/2</sup> )	
			λ <sub>p</sub>	Hg line 254 nm	400 nm		V <sub>R</sub> =10 mV (pA)	V <sub>R</sub> =1 V (pA)				Min.	Typ.		
															(μA)
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>

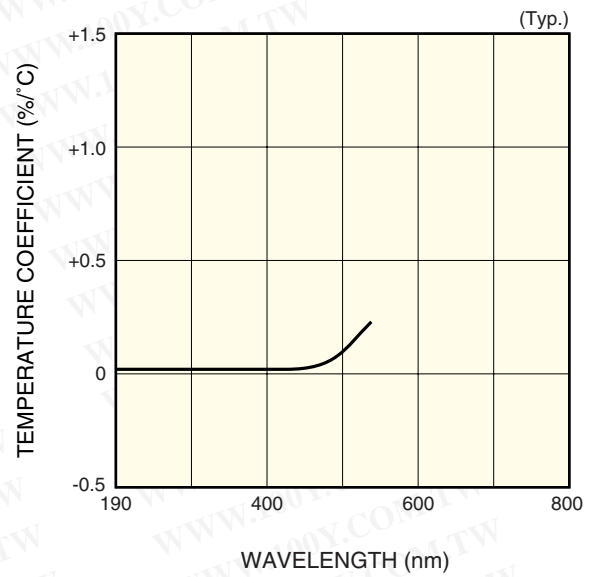
\* Window material Q: quartz glass

■ Spectral response



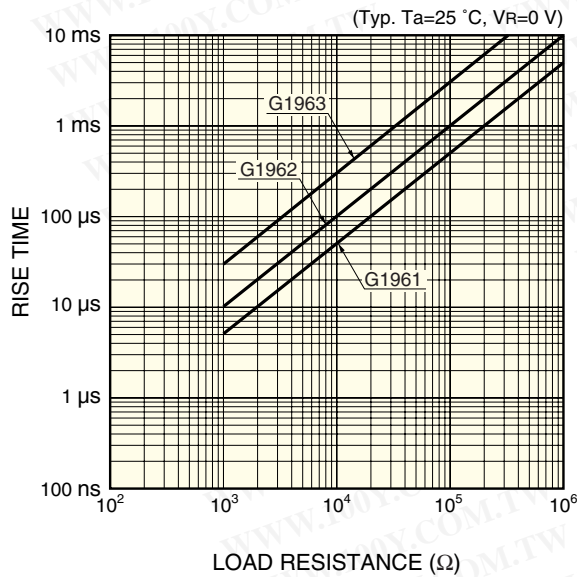
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■ Photo sensitivity temperature characteristic



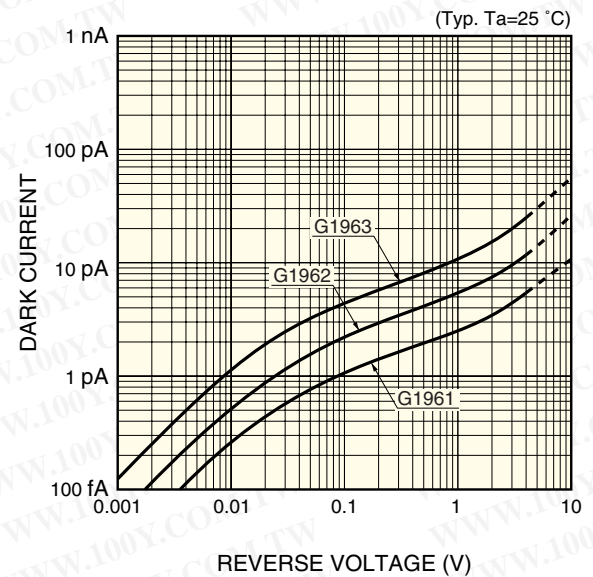
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■ Rise time vs. load resistance



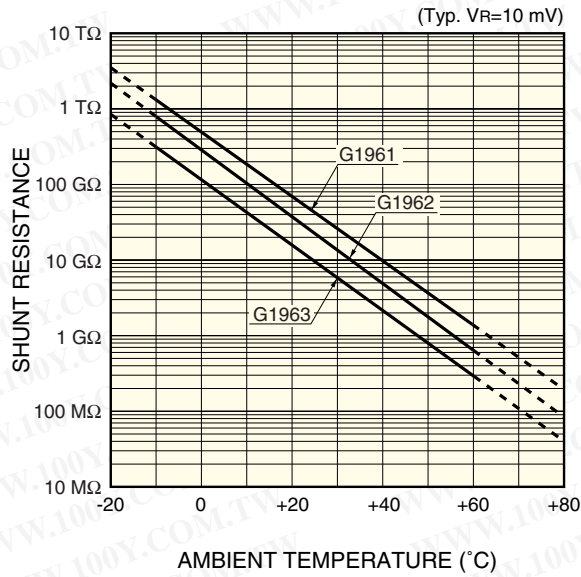
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■ Dark current vs. reverse voltage



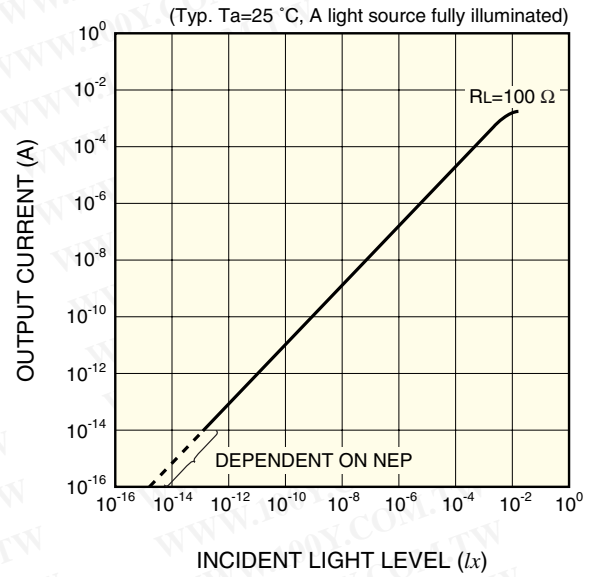
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■ Shunt resistance vs. ambient temperature



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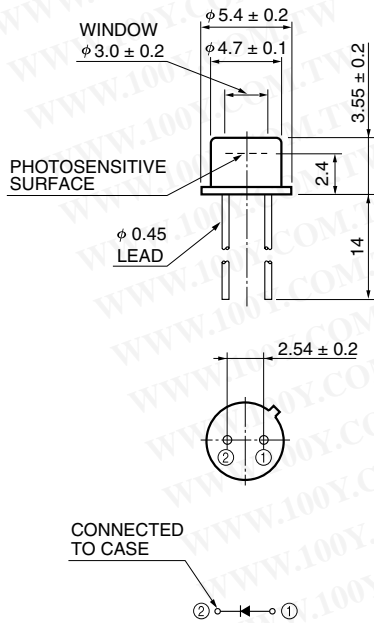
■ Short circuit current linearity



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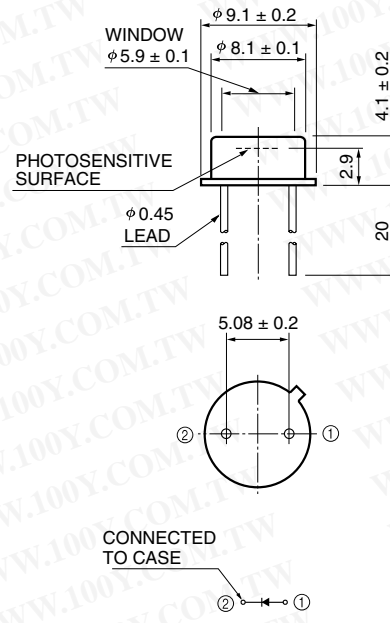
■ Dimensional outlines (unit: mm)

① G1961



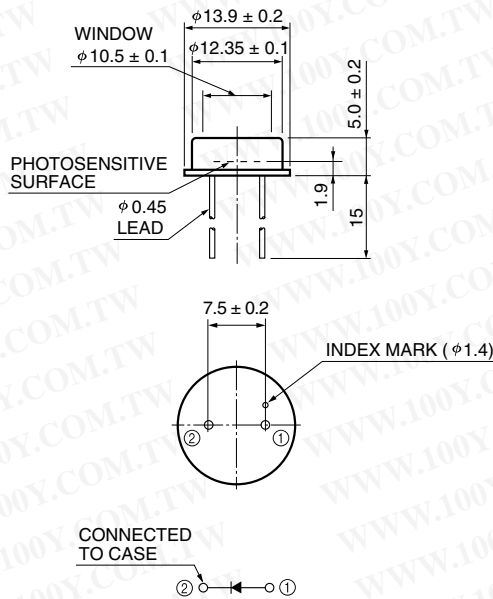
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② G1962



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③ G1963



KGPD0007EA

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