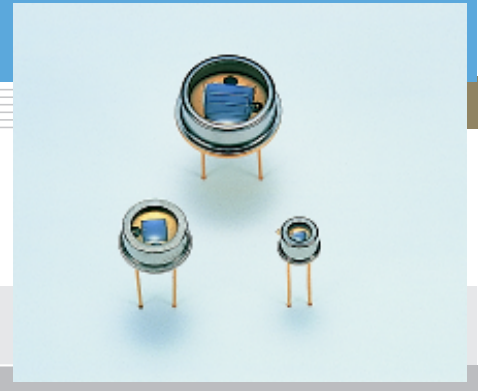


GaP photodiode G1961, G1962, G1963

Schottky type



Features

- Low dark current
- High UV sensitivity

Applications

- Analytical instruments
- UV detection

General ratings / Absolute maximum ratings

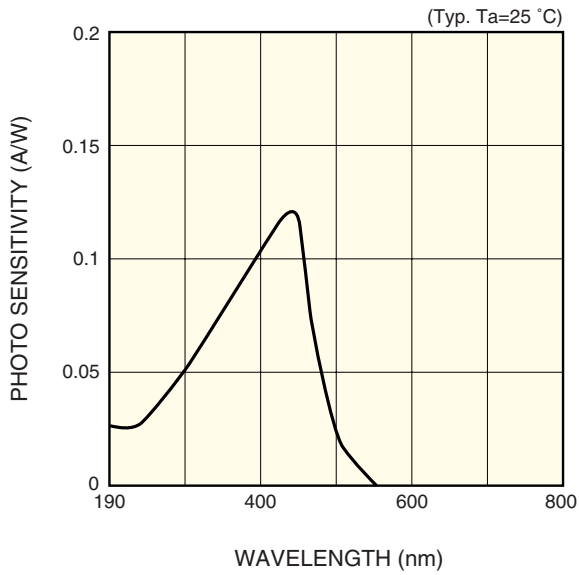
| Type No. | Dimensional outline/ Window material | Package | Active area size (mm) | Effective active area (mm ²) | Absolute maximum ratings | | |
|----------|---|---------|--------------------------|---|---|--|---|
| | | | | | Reverse voltage V _R Max. (V) | Operating temperature T _{op} (°C) | Storage temperature T _{stg} (°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_a=25 °C, unless otherwise noted)

| Type No. | Spectral response range λ (nm) | Peak sensitivity wavelength λ _p (nm) | Photo sensitivity S (A/W) | | | Short circuit current I _{sc} 1000 I _x (μA) | Dark current I _D Max. (pA) | | Temp. coefficient of I _D T _{CD} (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 (GΩ) | | NEP (W/Hz ^{1/2}) | |
|----------|--------------------------------------|---|------------------------------|-------------------|--------|---|---|-----------------------------|--|---|--|---|------|-------------------------------|-------------------------|
| | | | λ _p | Hg line 254 nm | 400 nm | | V _R =10 mV (pA) | V _R =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 ⁻¹⁵ |
| G1962 | | | | | | 0.23 | 0.3 | 5 | 50 | | | | 2 | 20 | 7.6 × 10 ⁻¹⁵ |
| G1963 | | | | | | 0.75 | 0.9 | 10 | 100 | | | | 1 | 1 | 1.1 × 10 ⁻¹⁴ |

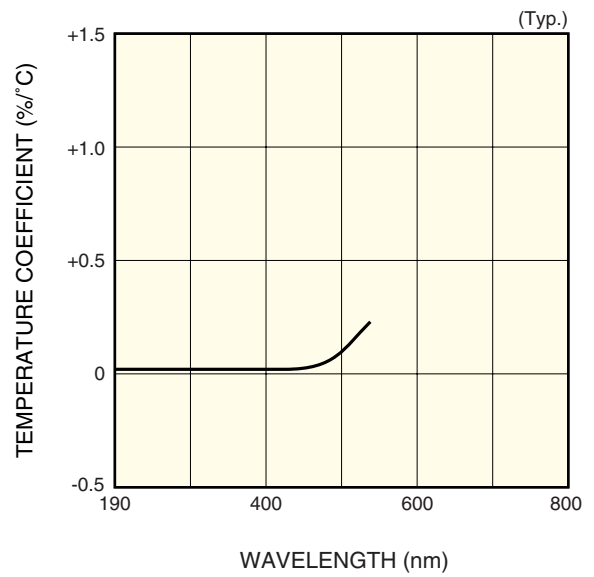
* Window material Q: quartz glass

■ Spectral response



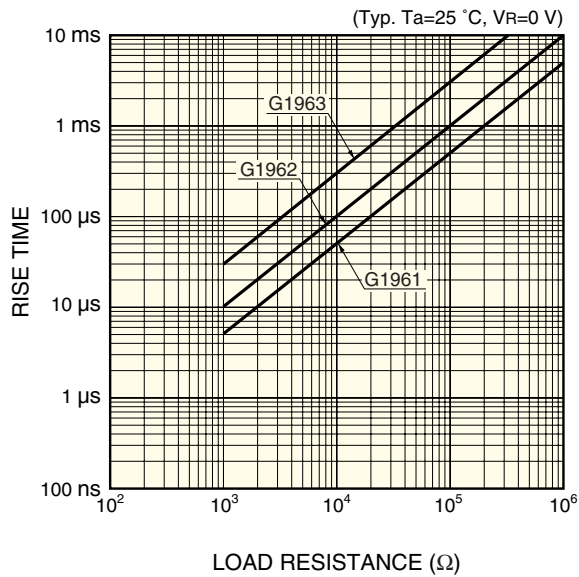
KGPD0014EA

■ Photo sensitivity temperature characteristic



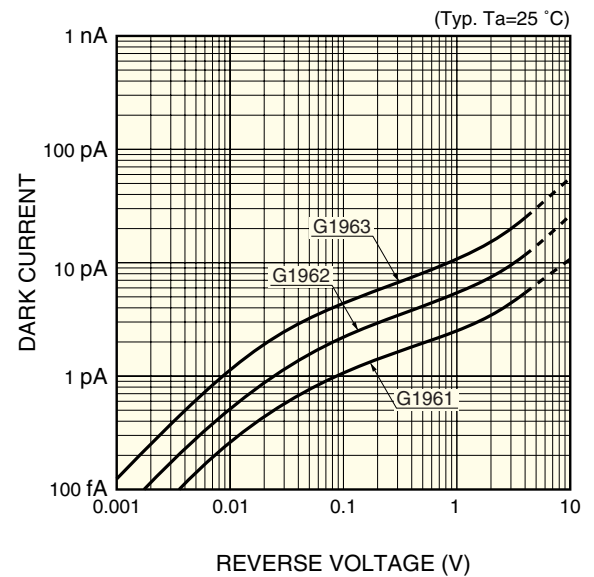
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■ Rise time vs. load resistance



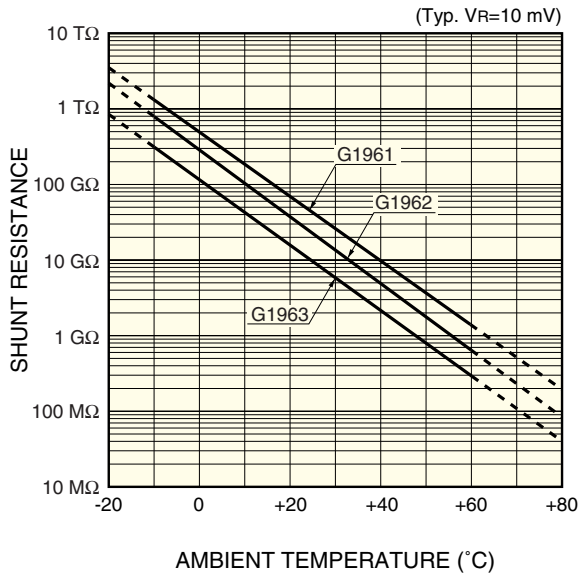
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■ Dark current vs. reverse voltage



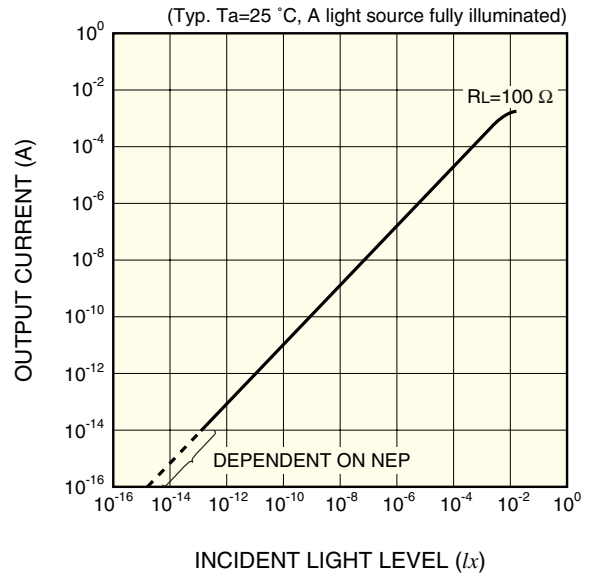
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■ Shunt resistance vs. ambient temperature



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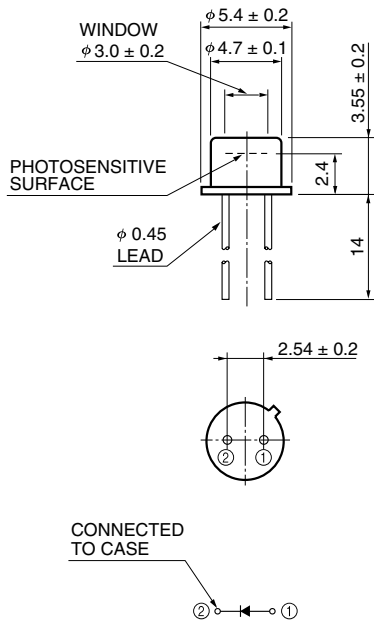
■ Short circuit current linearity



KGPDB0008EA

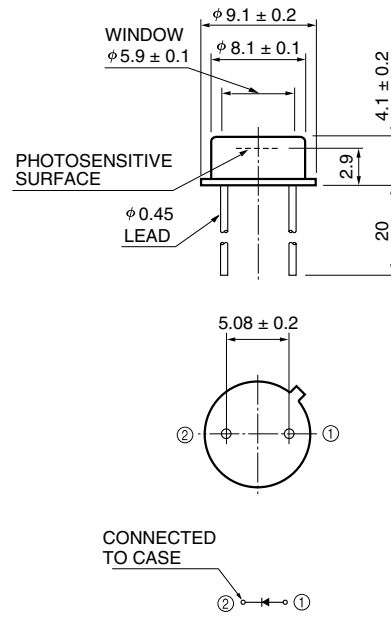
■ Dimensional outlines (unit: mm)

① G1961



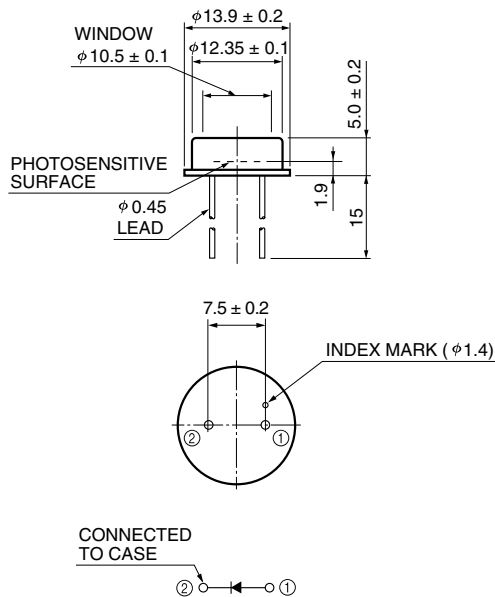
KGPDA0005EA

② G1962



KGPDA0006EA

③ G1963



KGPD0007EA

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