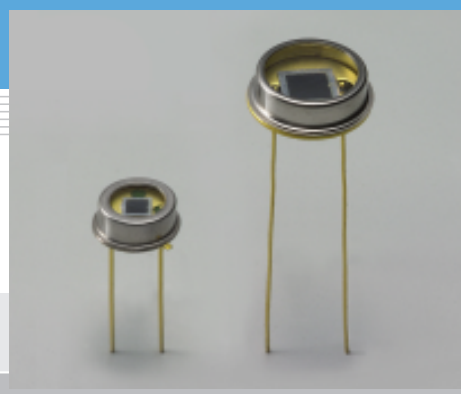


GaAsP photodiode G1746, G1747

Schottky type with extended red sensitivity



Features

- Low dark current
- Extended red sensitivity
- High UV sensitivity

Applications

- Analytical instrument
- Color identification
- UV detection

■ General ratings / Absolute maximum ratings

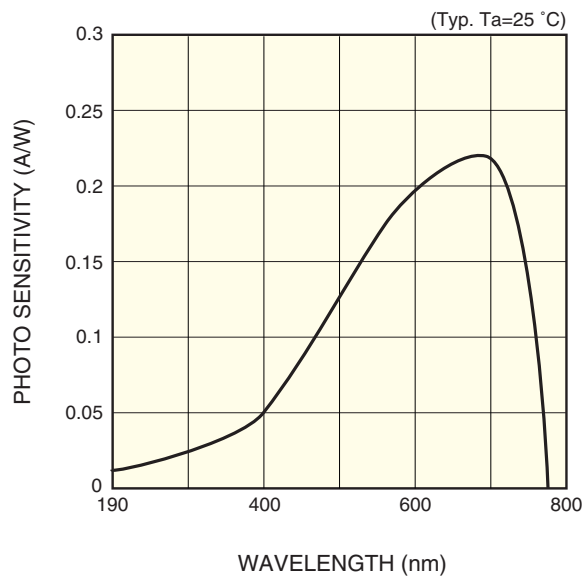
Type No.	Dimensional outline/ Window Material *	Package	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
					Reverse voltage VR Max. (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
G1746	①/Q	TO-5	2.3 × 2.3	5.2	5	-10 to +60	-20 to +70
G1747	②/Q	TO-8	4.6 × 4.6	21			

■ 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 μ A		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. (G Ω)	Typ. (G Ω)	
										Min. (μ A)				Typ. (μ A)	VR=10 mV (pA)	
G1746	190 to 760	710	0.22	0.02	0.18	0.2	0.5	0.65	10	100	1.07	3	1600	1	8	6.5×10^{-15}
G1747							1.8	2.4	20	200		12	6000	0.5	2.5	1.2×10^{-14}

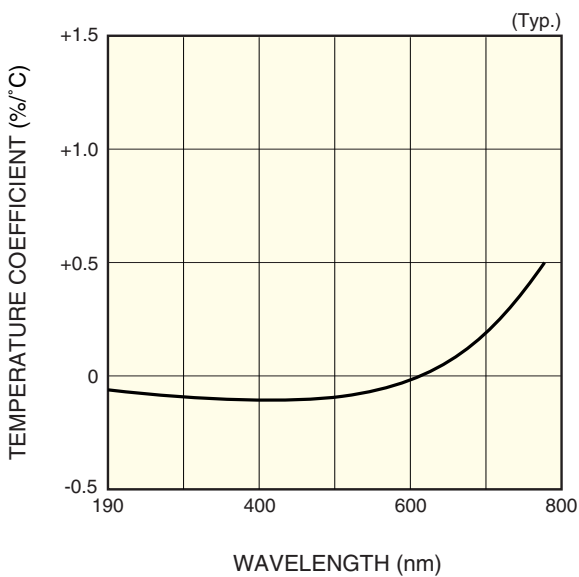
* Window material Q: quartz glass

■ Spectral response



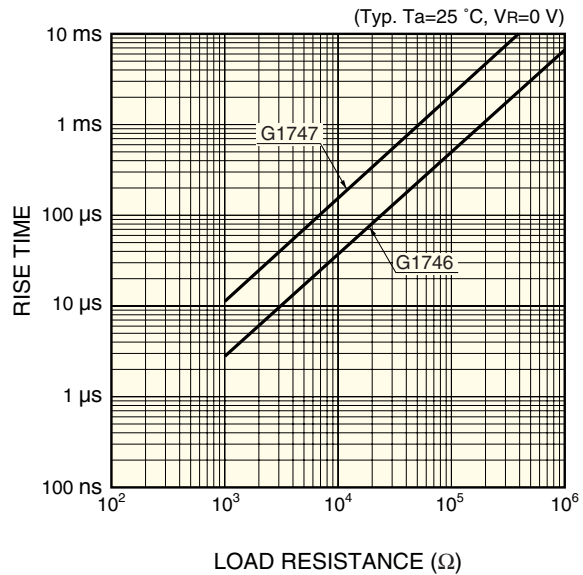
KGPDB0039EA

■ Photo sensitivity temperature characteristic



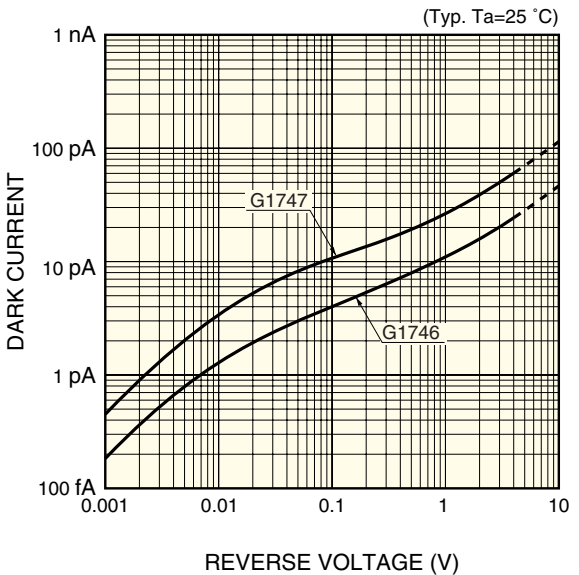
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■ Rise time vs. load resistance



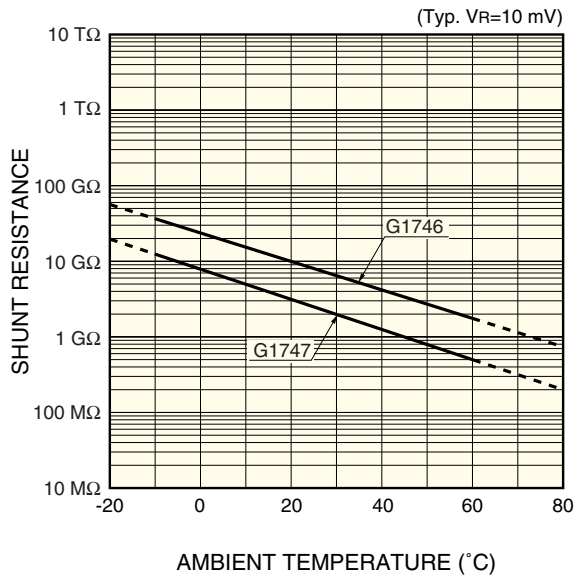
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■ Dark current vs. reverse voltage



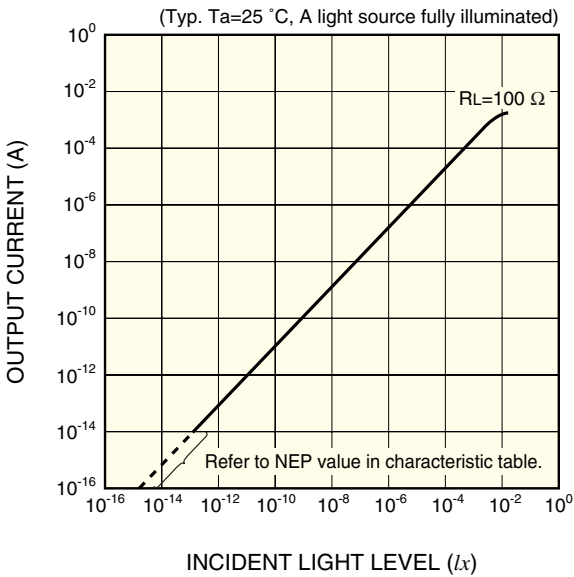
KGPDB0042EA

■ Shunt resistance vs. ambient temperature



KGPDB0043EA

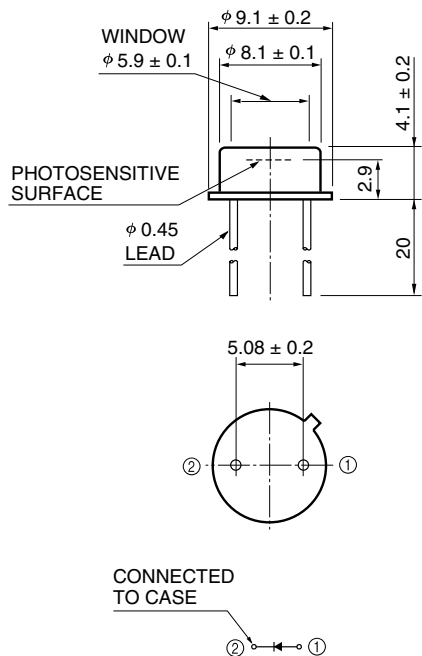
■ Short circuit current linearity



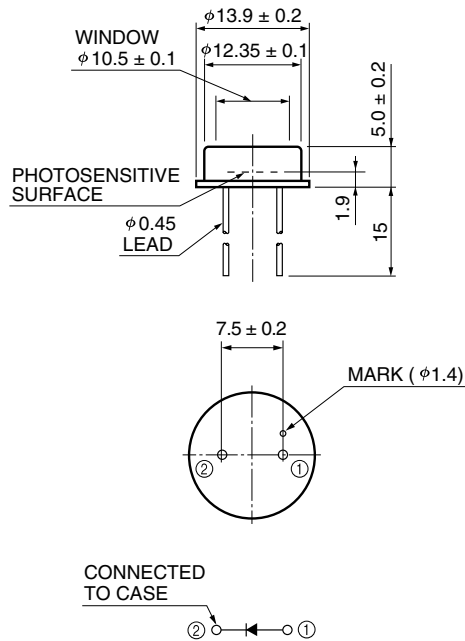
KGPDB0008EA

■ Dimensional outlines (unit: mm)

① G1746



KGPDA0008EA

② G1747

KGPD0007EA

HAMAMATSU

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