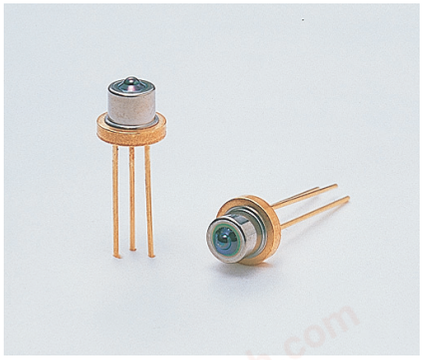
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PHOTON IS OUR BUSINESS

InGaAs PIN photodiode



G6854-01

Spherical lens window package for efficient fiber coupling

Features

- **Easy optical axis alignment**
- **High fiber coupling efficiency**
- **CD package**
  High degree of base positioning accuracy allows easy positioning.
- **Package weldable by YAG laser**
- **Spherical lens window with AR coating minimizes return light input**

Applications

- **Optical fiber communications**

Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Reverse voltage	V_R Max.	20	V
Operating temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +125	°C

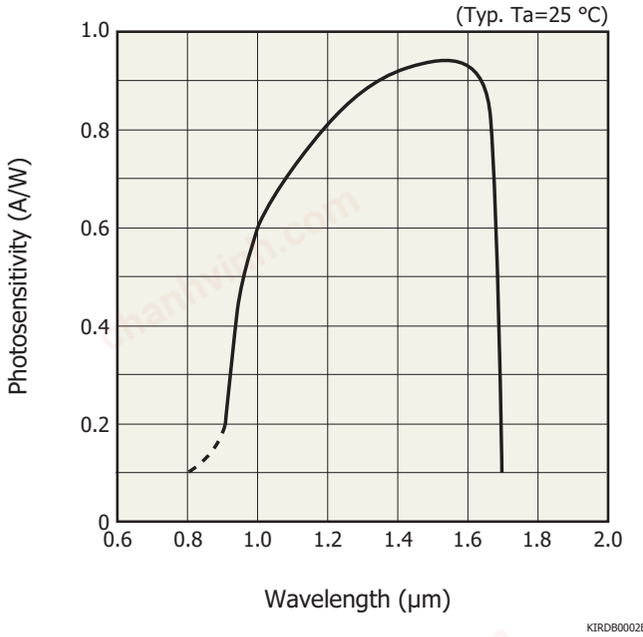
Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		-	0.9 to 1.7	-	μm
Peak sensitivity wavelength	λp		-	1.55	-	μm
Photo sensitivity	S	λ=1.3 μm	0.8	0.9	-	A/W
		λ=1.55 μm	0.85	0.95	-	A/W
Dark current	I_D	V_R=5 V	-	80	400	pA
Cutoff frequency	fc	V_R=5 V, R_L=50 Ω λ=1.3 μm, -3 dB	1	2	-	GHz
Terminal capacitance	Ct	V_R=5 V, f=1 MHz	-	1	1.5	pF
Shunt resistance	Rsh	V_R=10 mV	-	8	-	GΩ
Detectivity	D*	λ=λp	-	5×10^{12}	-	cm · $Hz^{1/2}$/W
Noise equivalent power	NEP	λ=λp	-	2×10^{-15}	-	W/$Hz^{1/2}$

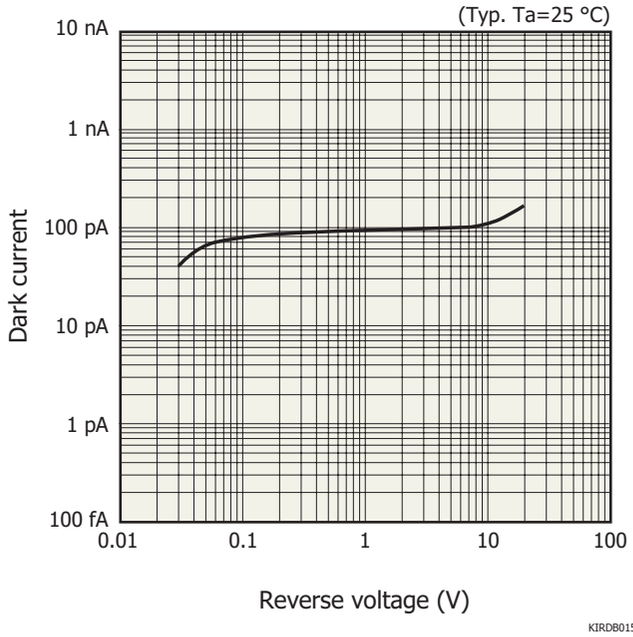
G6854-01 may be damaged by Electro Static Discharge, etc. Be carefull when using G6854-01.

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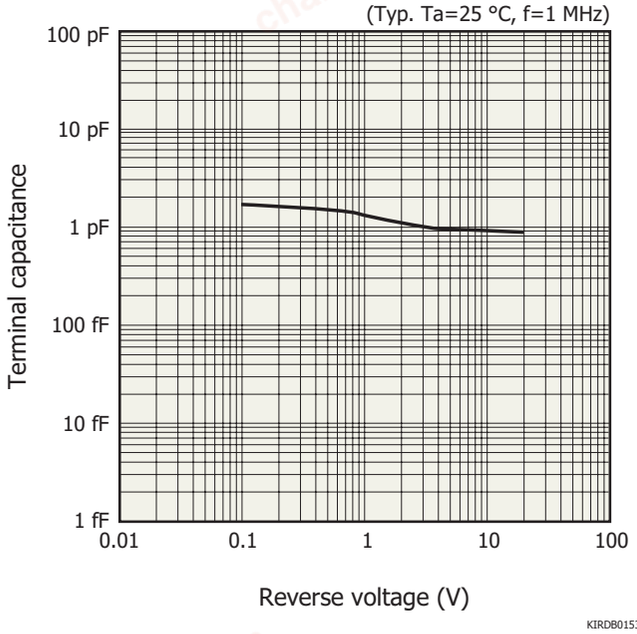
Spectral response



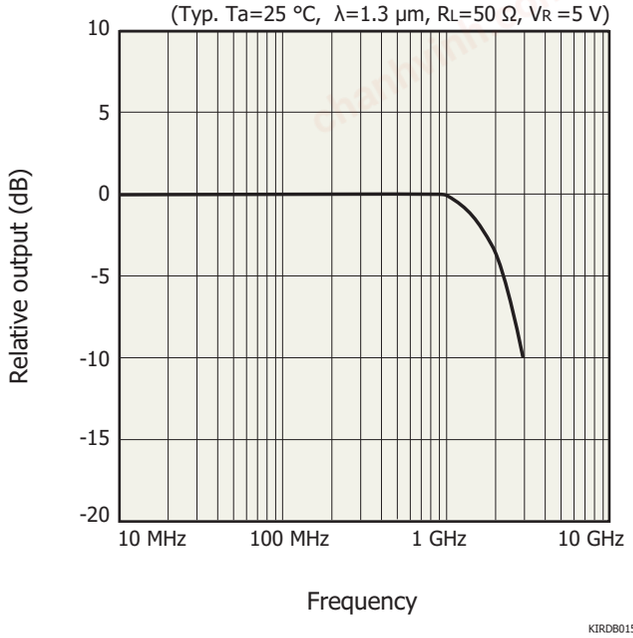
Dark current vs. reverse voltage



Terminal capacitance vs. reverse voltage

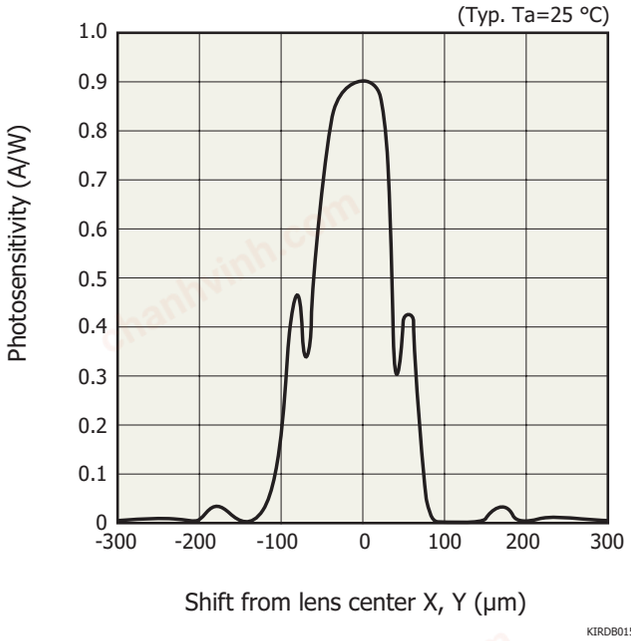


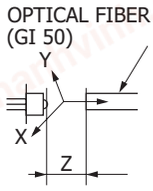
Frequency response



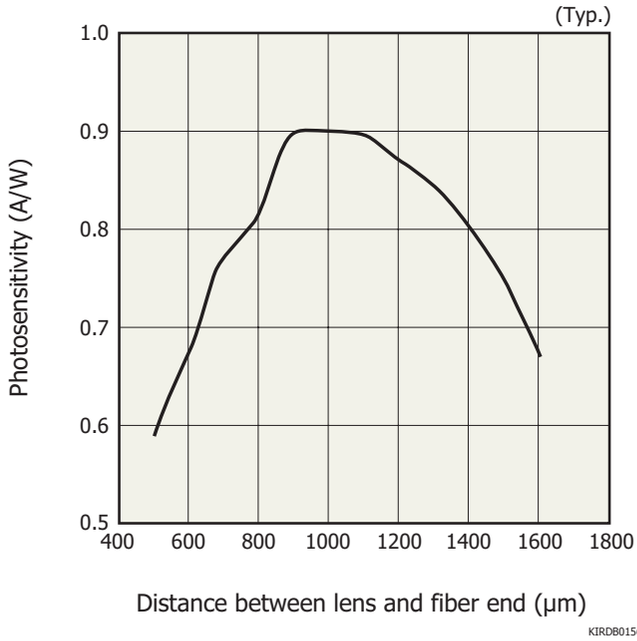
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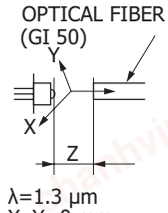
Fiber coupling characteristic (X, Y axes)





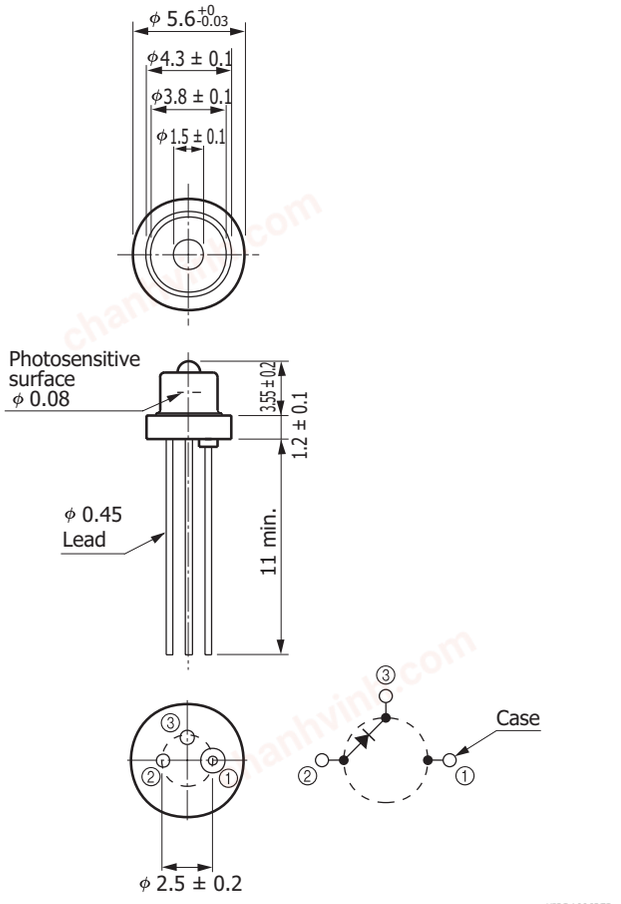
Fiber coupling characteristic (Z axis)





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Dimensional outline (unit: mm)



Related information

www.hamamatsu.com/sp/ssd/doc_en.html

■ Precautions
· Disclaimer
· Metal, ceramic, plastic package products

■ Technical information
· Infrared detectors

Information described in this material is current as of September 2017.
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The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use.
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