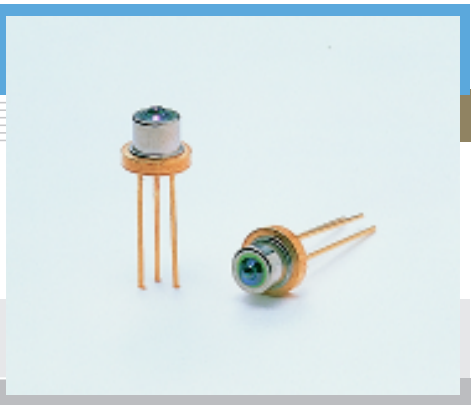
InGaAs PIN photodiode
G6854-01

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
Cut-off 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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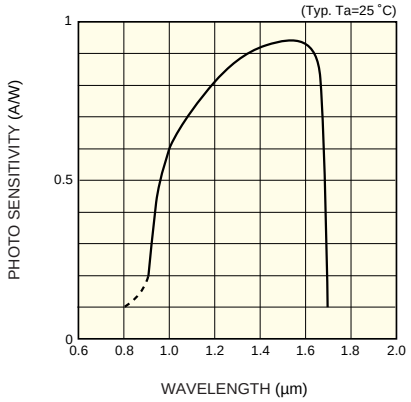
■ Spectral response



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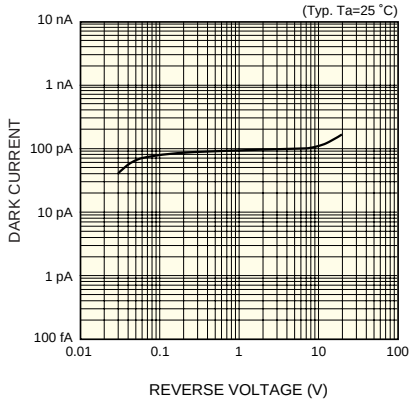
■ Dark current vs. reverse voltage



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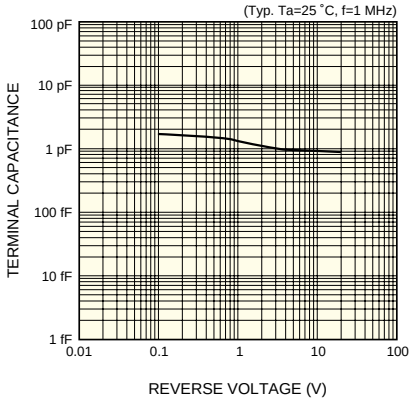
■ Terminal capacitance vs. reverse voltage



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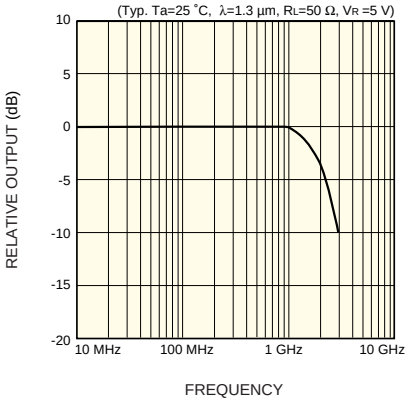
■ Frequency response



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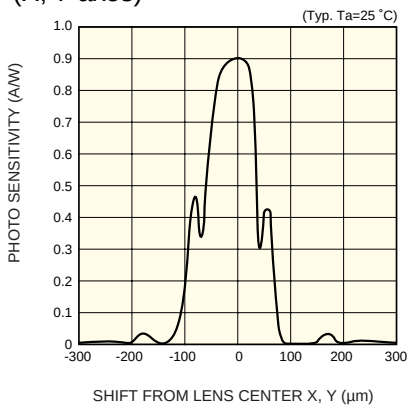
■ Fiber coupling characteristic (X, Y axes)



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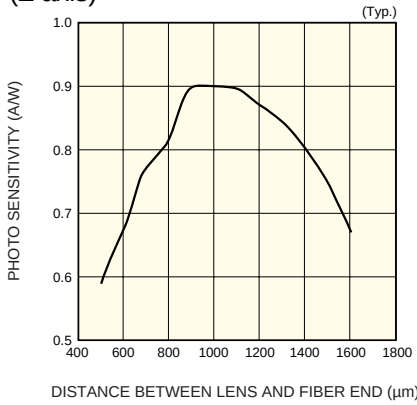
■ Fiber coupling characteristic (Z axis)



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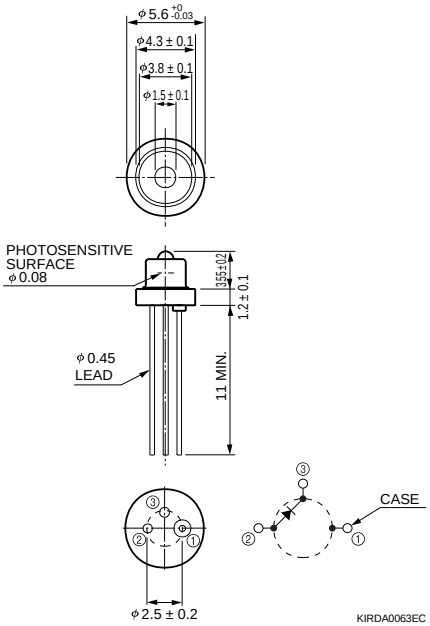
■ Dimensional outline (unit: mm)



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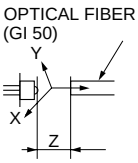

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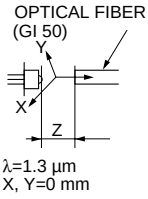

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