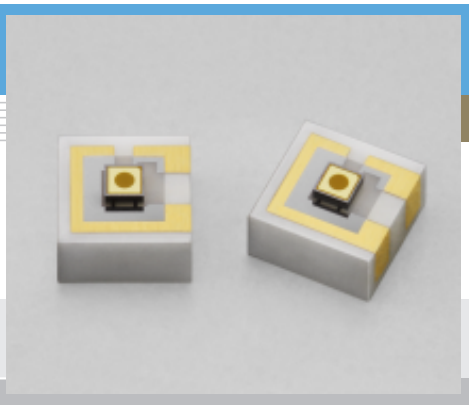
NEW

PHOTODIODE

InGaAs PIN photodiode
G9230-01

Uses small package with no wire



Features

- Easy to handle since there are no wires on chip (AnSn eutectic bonding)
  Optical fibers can be brought closer to the chip
- Miniature package: 2 × 2 × 1 mm
- High sensitivity: 0.95 A/W Typ. (λ=1.55 µm)
- Precise chip position tolerance: ±0.075 mm

Applications

- LD monitor
- Optical fiber communication

■ General / Absolute maximum ratings

Parameter	Symbol	value	Unit
Active area	-	φ0.3	mm
Reverse voltage	V_R Max.	10	V
Operating temperature *	Topr.	-40 to +85	°C
Storage temperature *	Tstg.	-40 to +85	°C

* In N_2 environment or in vacuum

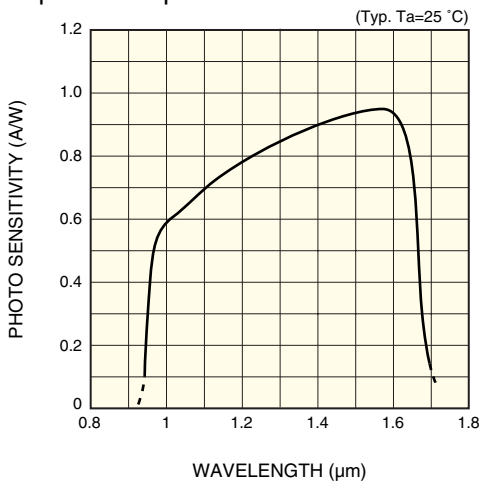
■ Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		-	0.95 to 1.7	-	µm
Photo sensitivity	S	λ=1.3 µm	-	0.85	-	A/W
		λ=1.55 µm	0.85	0.95	-	A/W
Dark current	I_D	V_R=5 V	-	0.3	1.5	nA
Shunt resistance	Rsh	V_R=10 mV	-	1000	-	MΩ
Terminal capacitance	Ct	V_R=5 V, f=1 MHz	-	5	-	pF
Cut-off frequency	fc	V_R=5 V, R_L=50 Ω	-	400	-	MHz
Noise equivalent power	NEP	λ=λp	-	4×10^{-15}	-	$W/Hz^{1/2}$

PRELIMINARY DATA
Jan. 2003

SOLID STATE DIVISION

■ Spectral response



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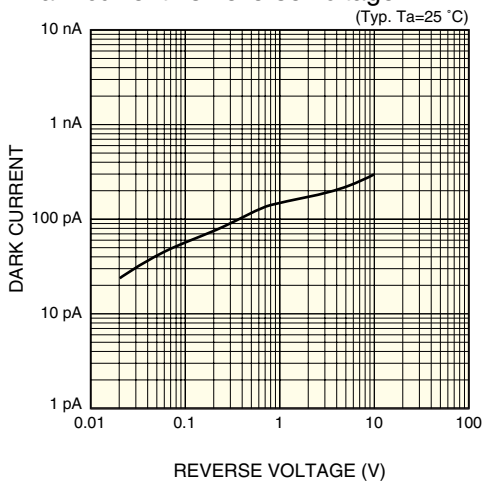
■ Dark current vs. reverse voltage



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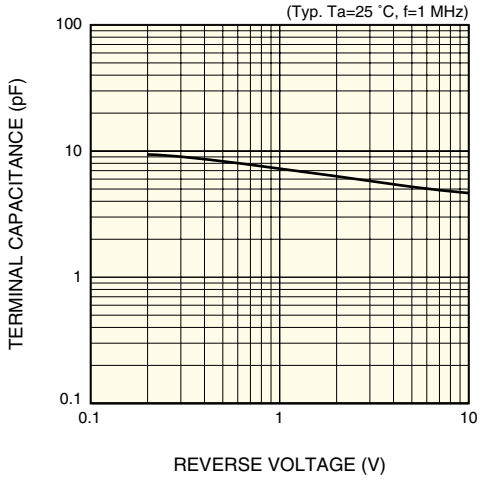
■ Terminal capacitance vs. reverse voltage



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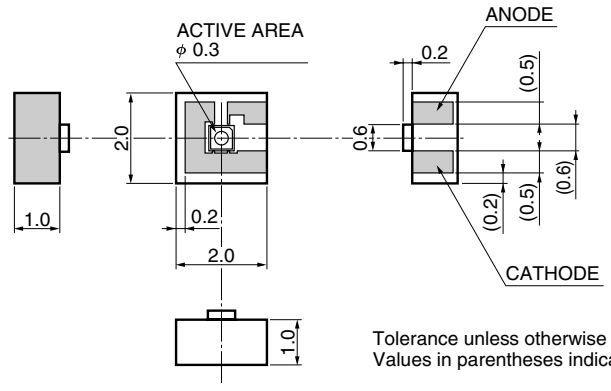
■ Dimensional outline (unit: mm)



Tolerance unless otherwise noted: ±0.075
Values in parentheses indicate reference value.

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