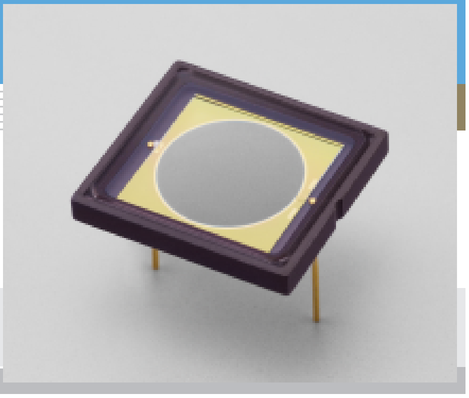
NEW

PHOTODIODE

InGaAs PIN photodiode

G8370-10



Ceramic package with large active area (ϕ10 mm)

Features

- Large active area: ϕ10 mm
- High sensitivity: 0.95 A/W Typ. (λ=1.55 μm)
- Low dark current
- Low PDL: 5 mdB Typ., 10 mdB Max.
- Photo response non-uniformity: ±2 % Typ.

Applications

- LD power monitor
- LD aging equipment

■ General / Absolute maximum ratings

Parameter	Symbol	Value	Unit
Active area	-	ϕ10	mm
Reverse voltage	V_R Max.	1	V
Operating temperature	Topr.	-25 to +70 *	°C
Storage temperature	Tstg.	-25 to +70 *	°C

* No condensation

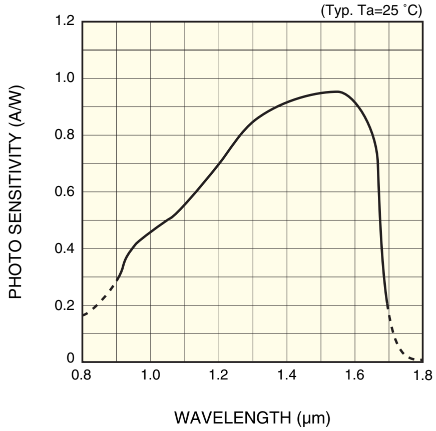
■ Electrical and optical characteristics (Ta=25 °C)

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	0.85	-	A/W
		λ=λp	0.85	0.95	-	A/W
Dark current	I_D	V_R=10 mV	-	0.2	2	μA
Shunt resistance	Rsh	V_R=10 mV	5	50	-	kΩ
Terminal capacitance	Ct	V_R=0 V, f=1 MHz	-	20	-	nF
Cut-off frequency	fc	V_R=0 V, R_L=50 Ω	-	100	-	kHz
Noise equivalent power	NEP	λ=λp	-	6×10^{-13}	-	W/Hz$^{1/2}$
Detectivity	D*	λ=λp	-	1.5×10^{12}	-	cm·Hz$^{1/2}$/W
Photo response non-uniformity	PRNU	80 % of active area	-	±2	-	%
PDL	-	V_R=0 V, λ=1.55 μm	-	5	10	mdB

PRELIMINARY DATA
Jan. 2003

SOLID STATE DIVISION

■ Spectral response



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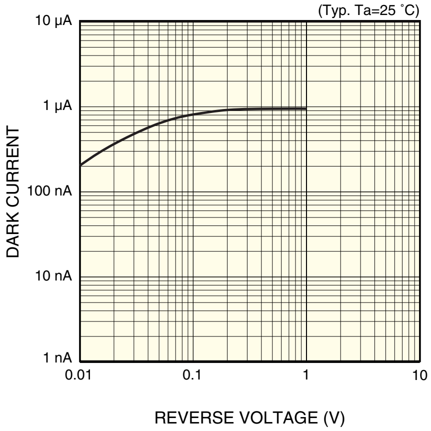
■ Dark current vs. reverse voltage



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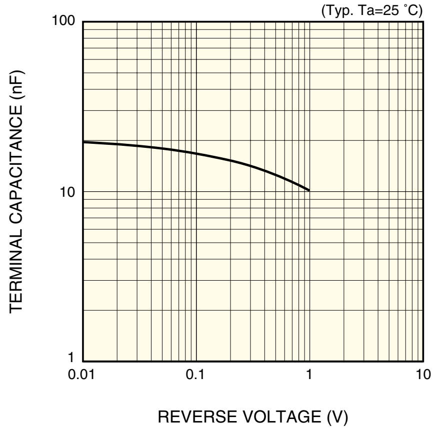
■ Terminal capacitance vs. reverse voltage



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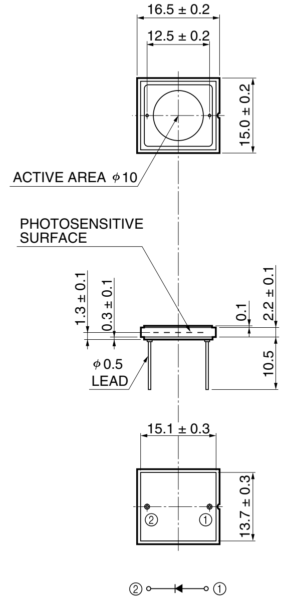
■ Dimensional outline (unit: mm)



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Cat. No. KIRD1058E01
Jan. 2003 DN