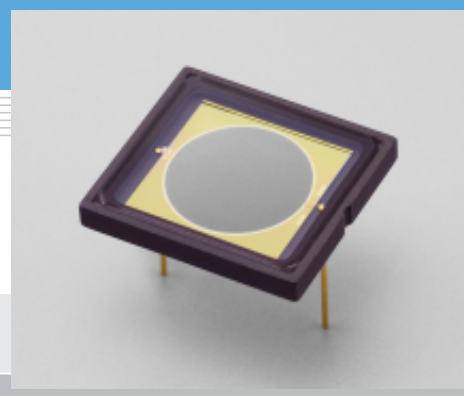


NEW

PHOTODIODE



InGaAs PIN photodiode

G8370-10

Ceramic package with large active area ($\phi 10$ mm)

Features

- Large active area: $\phi 10$ mm
- High sensitivity: 0.95 A/W Typ. ($\lambda=1.55$ 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

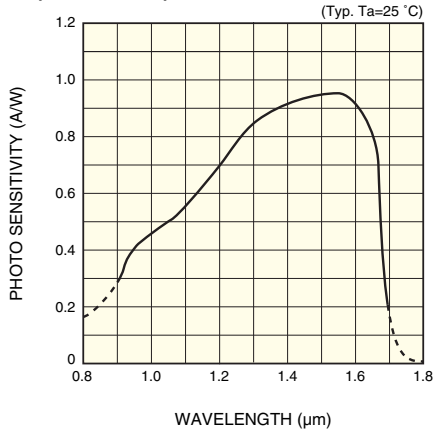
Parameter	Symbol	Value	Unit
Active area	-	$\phi 10$	mm
Reverse voltage	V_R Max.	1	V
Operating temperature	$T_{opr.}$	-25 to +70 *	$^{\circ}\text{C}$
Storage temperature	$T_{stg.}$	-25 to +70 *	$^{\circ}\text{C}$

* No condensation

■ Electrical and optical characteristics ($T_a=25$ $^{\circ}\text{C}$)

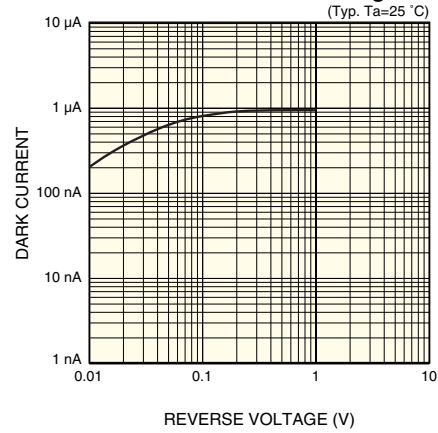
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		-	0.9 to 1.7	-	μm
Peak sensitivity wavelength	λ_p		-	1.55	-	μm
Photo sensitivity	S	$\lambda=1.3$ μm	0.8	0.85	-	A/W
		$\lambda=\lambda_p$	0.85	0.95	-	A/W
Dark current	I_D	$V_R=10$ mV	-	0.2	2	μA
Shunt resistance	Rsh	$V_R=10$ mV	5	50	-	$\text{k}\Omega$
Terminal capacitance	C_t	$V_R=0$ V, $f=1$ MHz	-	20	-	nF
Cut-off frequency	f_c	$V_R=0$ V, $R_L=50$ Ω	-	100	-	kHz
Noise equivalent power	NEP	$\lambda=\lambda_p$	-	6×10^{-13}	-	$\text{W}/\text{Hz}^{1/2}$
Detectivity	D^*	$\lambda=\lambda_p$	-	1.5×10^{12}	-	$\text{cm}\cdot\text{Hz}^{1/2}/\text{W}$
Photo response non-uniformity	PRNU	80 % of active area	-	± 2	-	%
PDL	-	$V_R=0$ V, $\lambda=1.55$ μm	-	5	10	mdB

■ Spectral response



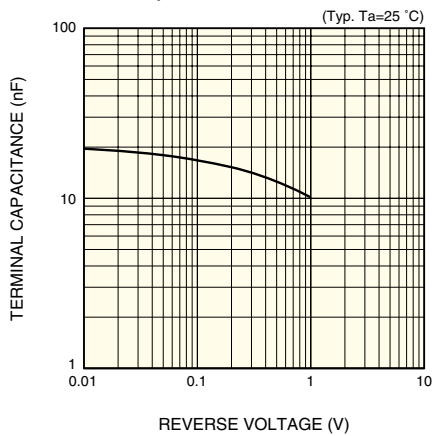
KIRDB0284EA

■ Dark current vs. reverse voltage



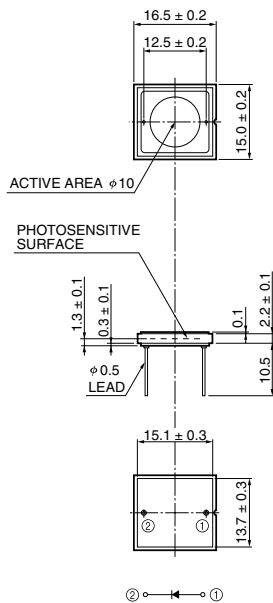
KIRDB0285EA

■ Terminal capacitance vs. reverse voltage



KIRDB0286EA

■ Dimensional outline (unit: mm)



KIRDA0167EA

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HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Hamamatsu City, 435-8558 Japan, Telephone: (81) 053-434-3311, Fax: (81) 053-434-5184, <http://www.hamamatsu.com>

U.S.A.: Hamamatsu Corporation, 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 08152-3750, Fax: (49) 08152-2658

France: Hamamatsu Photonics France S.A.R.L.: 8, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777

North Europe: Hamamatsu Photonics Norden AB: Smidsvågen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741