

**NEW**

PHOTODIODE

# InGaAs PIN photodiode with preamp G8925 series

High-speed response: 10 Gbps, pigtail type



G8925-21

## Features

- High-speed response: 10 Gbps
- Supply voltage: 5 V
- Wide dynamic range: -18 to 0 dBm
- Small size
- Fire resistant optical fiber

## Applications

- Optical fiber communications
- SDH/SONET
- WDM

### ■ Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Operating temperature	Topr	-20 to +70 *	°C
Storage temperature	Tstg	-40 to +85 *	°C

\* No condensation

### ■ Electrical and optical characteristics (Ta=25 °C, Vcc=Vpd=5 V, Vee=0 V, RL=50 Ω, unless otherwise noted)

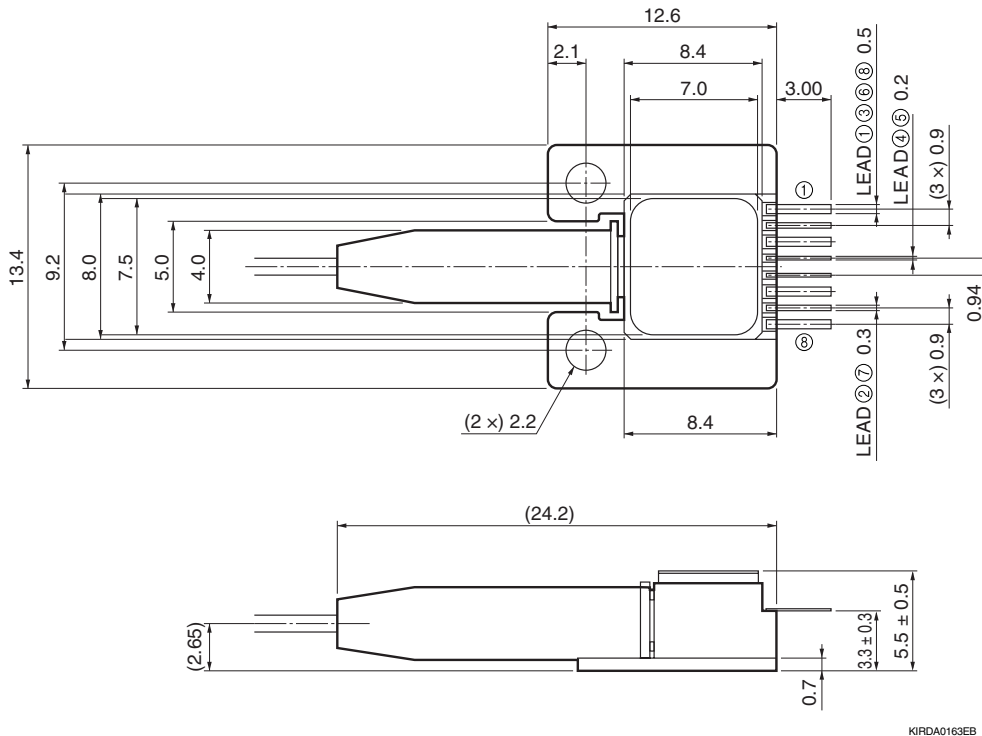
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Supply current	Icc	Dark state, RL=∞	-	78	-	mA
Photo sensitivity (photodiode)	S	λ=1.3 μm	0.70	0.85	-	AW
		λ=1.55 μm	0.75	0.90	-	
Cut-off frequency	Fc	λ=1.55 μm, -3 dB	-	8.5	-	GHz
Differential transimpedance	Tz	RL=100 Ω, f=100 MHz	-	1.0	-	kΩ
Minimum receivable sensitivity	-	10 Gbps, NRZ	-	-18	-	dBm
Maximum receivable sensitivity	-	PRBS=2 <sup>23</sup> -1, BER=10 <sup>-12</sup> λ=1.55 μm	-	0	-	dBm

### ■ Package lineup

Configuration		G8925			
		-21	-22	-23	-24
Package	Type	Board			
Fiber	Type	SM (9.5 /125 ) φ0.9			
	Length	1 m +20 cm/-0 cm			
Connector	Type	SC	FC	MU	LC
	Dimensional outline	①	②	③	④

■ Dimensional outlines (unit: mm, tolerance unless otherwise noted:  $\pm 0.25$ )

## Package

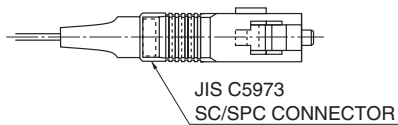


## ■ Pin connection

Pin No.	G8925 series
① ③ ⑥ ⑧	GND
②	Vpd
④	Vout+
⑤	Vout-
⑦	Vcc

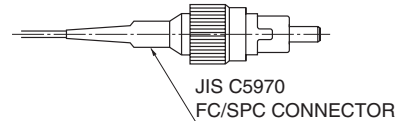
## Connector

① SC



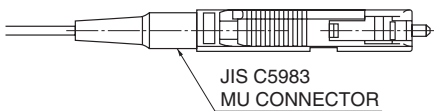
KIRDA0102EA

② FC



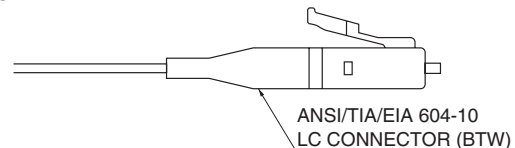
KIRDA0103EA

③ MU



KIRDA0164EA

④ LC



KIRDA0165EA

# HAMAMATSU

Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2002 Hamamatsu Photonics K.K.

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: Smidesvägen 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