HAMAMATSU
PHOTON IS OUR BUSINESS

NEW

InGaAs PIN photodiode

G12963-32

Reduced multiple reflections, receptacle type

We have arranged the photodiode and lens in the optimal positions so that this receptacle type InGaAs PIN photodiode has significantly reduced multiple reflections inside the module. It is used for OCT, etc.

Features

- **High-speed response: 4 GHz typ.**
- **Prevents multiple reflections**
- **FC/Angled PC compatible**

Applications

- **Optical measurement including OCT**
- **Optical fiber communications**

Absolute maximum ratings

Parameter	Symbol	Condition	Value	Unit
Reverse voltage	V_R max	Ta=25 °C	7	V
Operating temperature	Topr	No dew condensation*1	-20 to +70	°C
Storage temperature	Tstg	No dew condensation*1	-40 to +85	°C

*1: When there is a temperature difference between a product and the surrounding area in high humidity environments, dew condensation may occur on the product surface. Dew condensation on the product may cause deterioration in characteristics and reliability.

Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

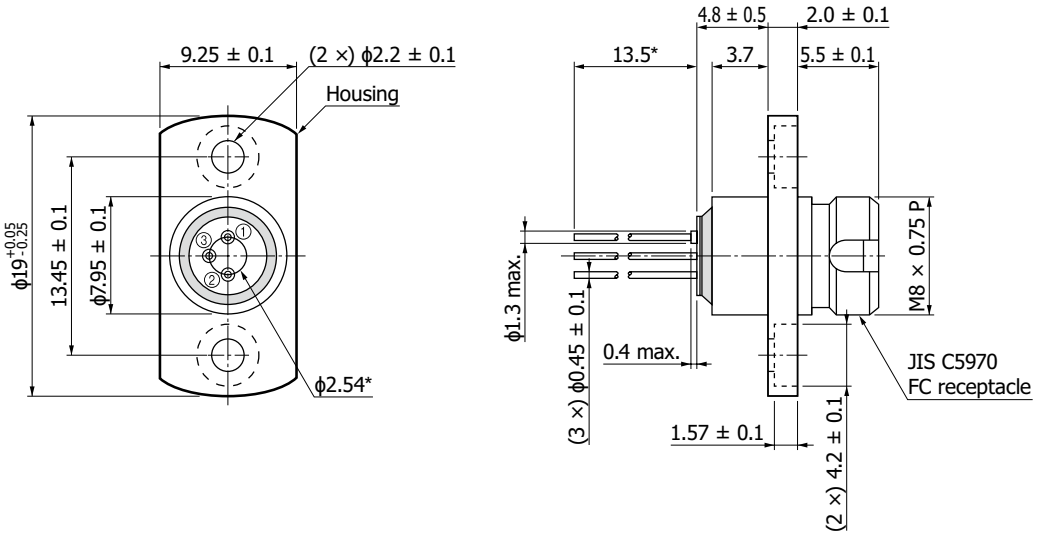
Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ			0.9 to 1.7		μm
Peak sensitivity wavelength	λp			1.55		μm
Photosensitivity*2	S	λ=1.31 μm, V_R=5 V	0.75	0.95	-	A/W
Dark current	I_D	Dark state, V_R=5 V	-	0.15	0.5	nA
Cutoff frequency	fc	V_R=5 V, R_L=50 Ω λ=1.31 μm, -3 dB	1.5	4.0	-	GHz
Terminal capacitance	Ct	V_R=5 V, f=1 MHz Case: GND	-	0.8	2.0	pF
Optical return loss*2	ORL	λ=1.31 μm	27	50	-	dB

*2: Using a single-mode optical fiber (FC/Angled PC)

The G12963-32 may be damaged or deteriorated by static electricity. Use caution when handling.

Dimensional outline (unit: mm)



Tolerance unless otherwise noted: ±0.2
* Reference values

KIRDA0282EA

Pin connections

Pin no.	Connection
①	Case*3
②	Anode
③	Cathode

*3: It is not connected to the housing.

Recommended soldering conditions

Soldering temperature: 260 °C (within 10 seconds)

Note: When you set soldering conditions, check that problems do not occur in the product by testing out the conditions in advance.

Related information

www.hamamatsu.com/sp/ssd/doc_en.html

■ Precautions
· Disclaimer
· Safety consideration
· Metal, ceramic, plastic package products
· Compound opto-semiconductors (photosensors, light emitters)

■ Technical note
· Compound semiconductor photosensors

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