

Optoelectronics Components Data Sheet

■ DE-0393

Avalanche Photodiode Coaxial Module

Description

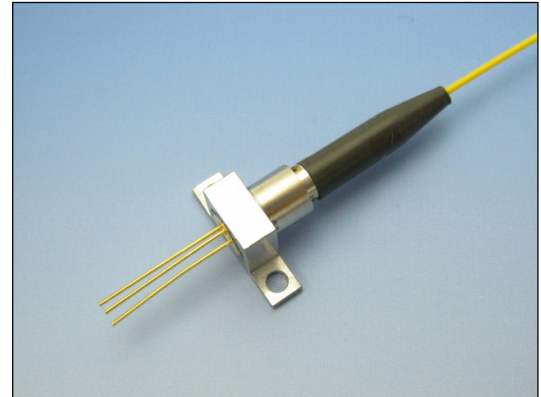
DE-0393 is a high sensitive optical receiver module of coaxial pigtail type. This module consists of an InGaAs avalanche photodiode (APD) of $\phi 35\mu\text{m}$ received diameter, a single-mode fiber and a coaxial package. This module is suitable for building long haul digital optical transmission systems.

Features

- ◆ $\phi 35\mu\text{m}$ received diameter
- ◆ High speed, Low capacitance
- ◆ Low dark current
- ◆ High quantum efficiency
- ◆ Hermetically sealed APD-TIA device
- ◆ YAG laser spot welding for high reliability
- ◆ Coaxial Package
- ◆ -40 to +85 °C operating temperature range

Applications

- Long haul digital transmission systems
- OTRD systems
- Optical measuring instruments



Absolute Maximum Ratings

(Tc=25°C, unless otherwise specified)

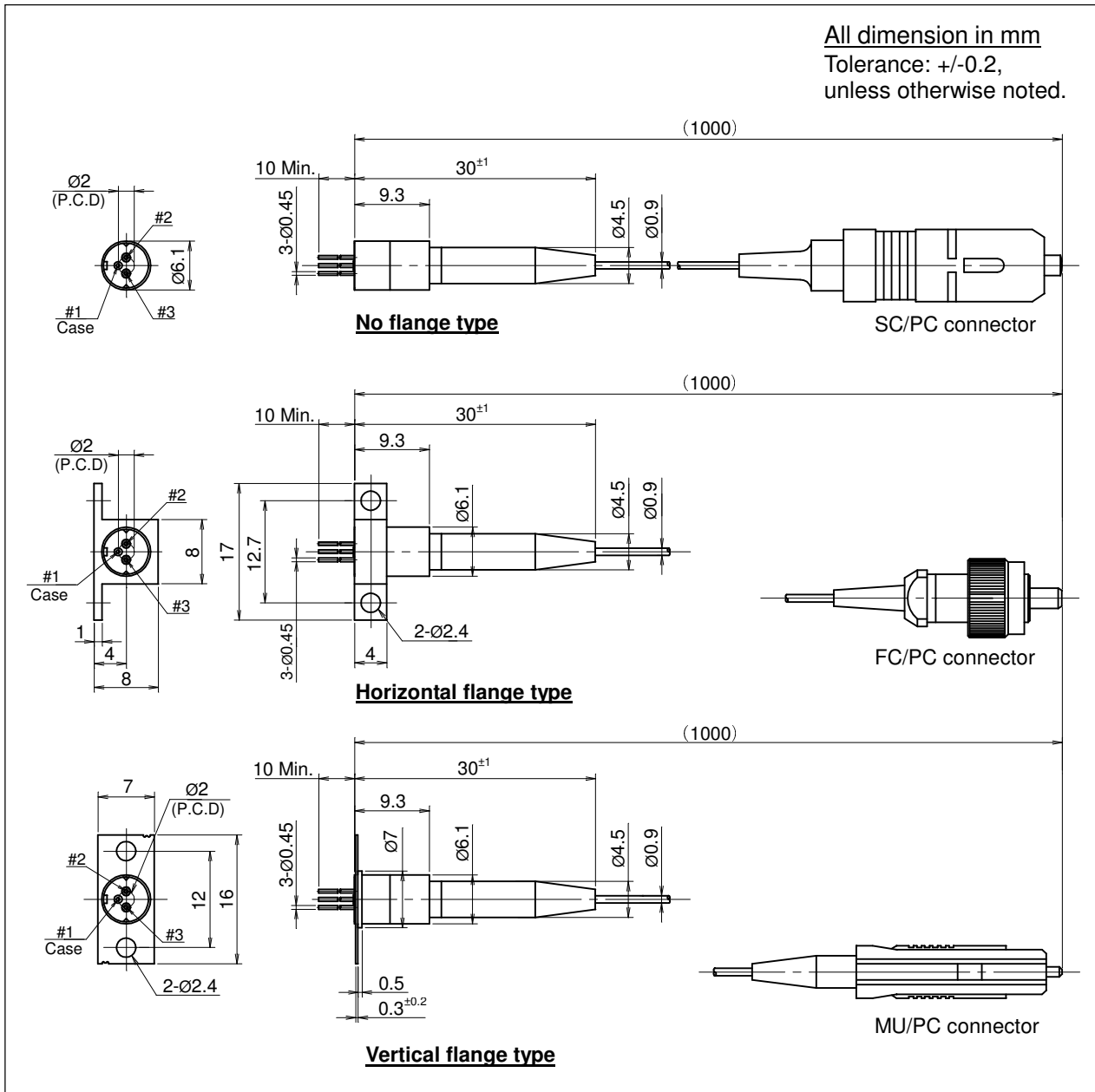
Parameter	Symbol	Ratings	Unit	Conditions
DC forward current	If	2	mA	---
DC reverse current	Ir	0.5	mA	---
APD reverse voltage	Vrapd	Vbr (*1)	V	---
Storage temperature	Tstg	-40 ~ +85	°C	---
Operating temperature	Tc	-40 ~ +85	°C	---
Soldering temperature	Ts	260	°C	10sec, >2mm

Electrical and Optical Characteristics

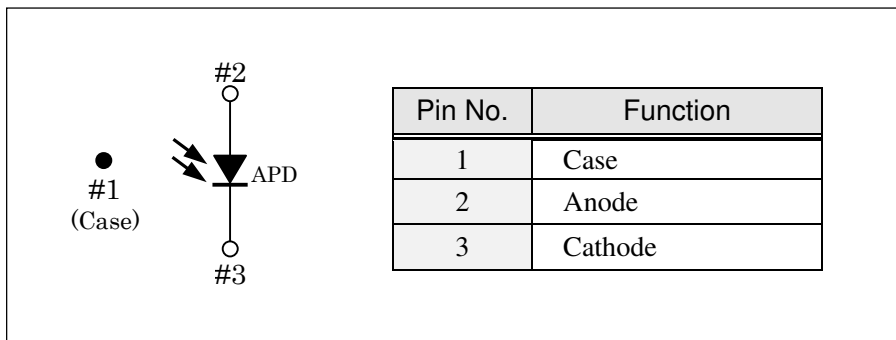
(Tc=25°C, unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Breakdown voltage	VBR	Id=100 μA	40	60	90	V
Capacitance	Ct	VR=0.9*VBR, f=1MHz	---	0.5	0.7	pF
Dark current	Id	VR=0.9*VBR	---	20	60	nA
Responsivity	R	M=1, λ=1550nm	0.8	0.85	---	A/W
Bandwidth	fc	M=10, RL=50Ω, -3dB	1.8	2.5	---	GHz

Outline Drawings



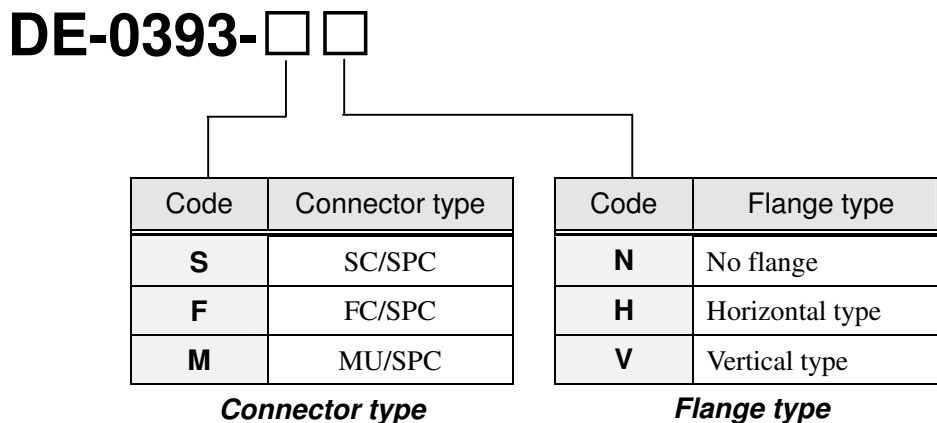
Pin configuration



Optical Fiber Characteristics

Parameter	Min.	Typ.	Max.	Unit
Fiber type	Single mode			---
Mode field diameter	8	9	10	μm
Clad diameter	123	125	127	μm
Concentricity error	---	---	1	μm
Cladding non-circularity	---	---	2	%
Mode field non-circularity	---	---	6	%
Cut off wavelength	1270	---	---	nm
Jacket diameter	0.8	0.9	1	mm
Bending Radius	20	---	---	mm
Tensile strength fiber case	5	---	---	N
Length	---	(1000)	---	mm
Connector	FC type / SPC			
	SC type / SPC			
	MU type / SPC			

Ordering information



OPTOHUB Co., Ltd.

305 Live Tower Musashi Urawa
 7-6-8 Bessho, Minami-ku, Saitama-shi
 Saitama, 336-0021 JAPAN

URL : <http://www.optohub.com>
 E-mail : info@optohub.com
 TEL : +81-48-844-8899
 FAX : +81-48-844-8902