

Optoelectronics Components Data Sheet

■ DE-0943

PIN-Photodiode Coaxial Module

Description

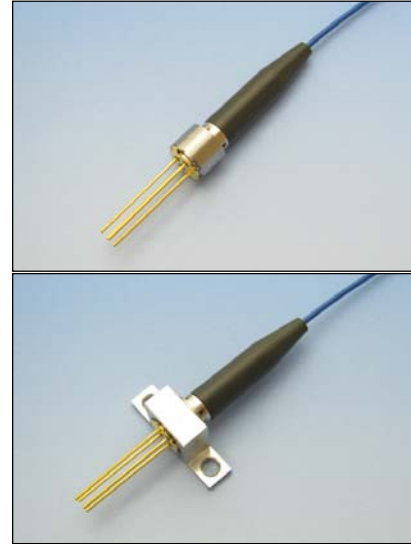
DE-0943 is a high sensitive optical receiver module of coaxial pigtail type. This module consists of an InGaAs PIN photodiode(PIN-PD) of $\phi 300\mu\text{m}$ received diameter, a single-mode fiber and a coaxial package.

Features

- ◆ $\phi 300\mu\text{m}$ received diameter
- ◆ High coupling efficiency
- ◆ Hermetically sealed PIN-PD device
- ◆ YAG laser spot welding for high reliability
- ◆ Coaxial Package
- ◆ -40 to +85 °C operating temperature range

Applications

- Digital transmission systems
- OTRD systems
- Optical measuring instruments



Absolute Maximum Ratings

(Tc=25°C, unless otherwise specified)

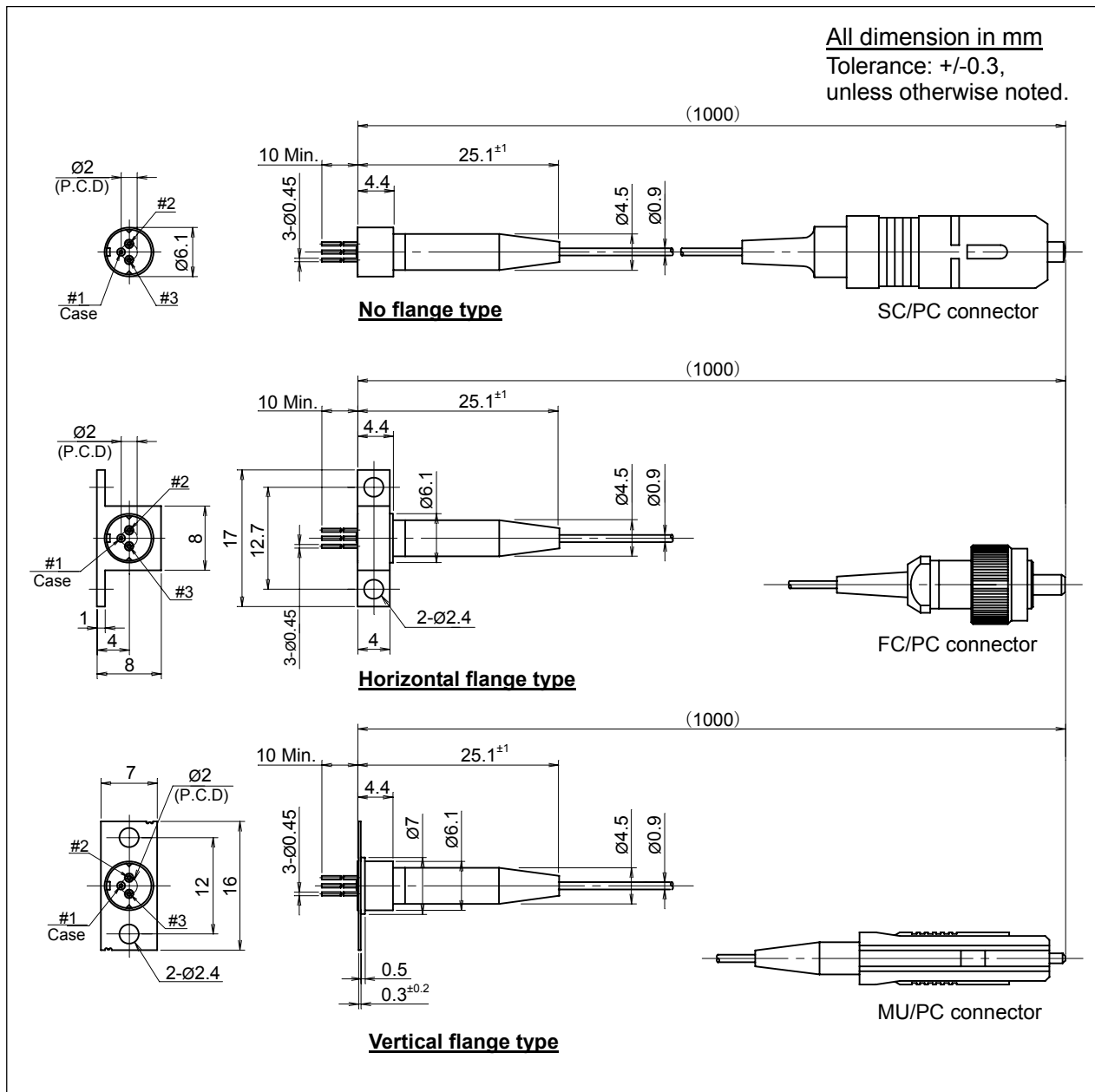
| Parameter | Symbol | Ratings | Unit | Conditions |
|-----------------------|--------|-----------|------|-------------|
| Forward current | If | 50 | mA | --- |
| Reverse voltage | Vr | 20 | V | --- |
| Maximum input power | Pmax | 30 | mW | --- |
| Storage temperature | Tstg | -40 ~ +85 | °C | --- |
| Operating temperature | Tc | -40 ~ +85 | °C | --- |
| Soldering temperature | Ts | 260 | °C | 10sec, >2mm |

Electrical and Optical Characteristics

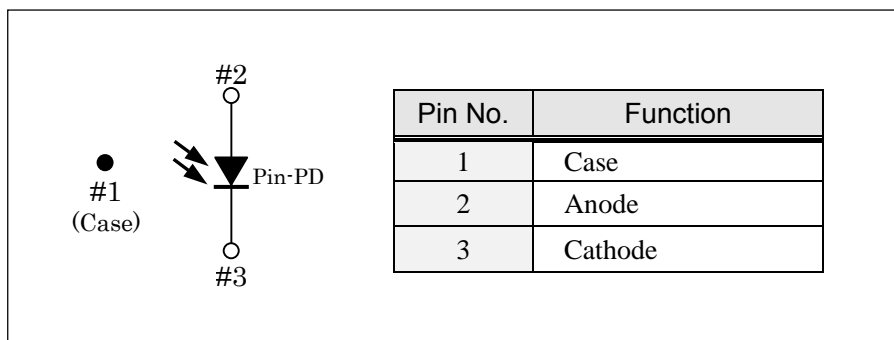
(Tc=25°C, unless otherwise specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-------------------|--------|-------------------------------|------|------|------|------|
| Active Diameter | D | --- | --- | 300 | --- | μm |
| Responsivity | R | λ=1310nm | 0.7 | --- | --- | A/W |
| | | λ=1550nm | 0.8 | --- | --- | |
| Total capacitance | Ct | f=1MHz | --- | 4 | 6 | pF |
| Dark current | Id | --- | --- | 100 | 600 | pA |
| Bandwidth | fc | RL=50Ω, -3dB, Lead length<2mm | 0.4 | 0.6 | --- | GHz |

Outline Drawings



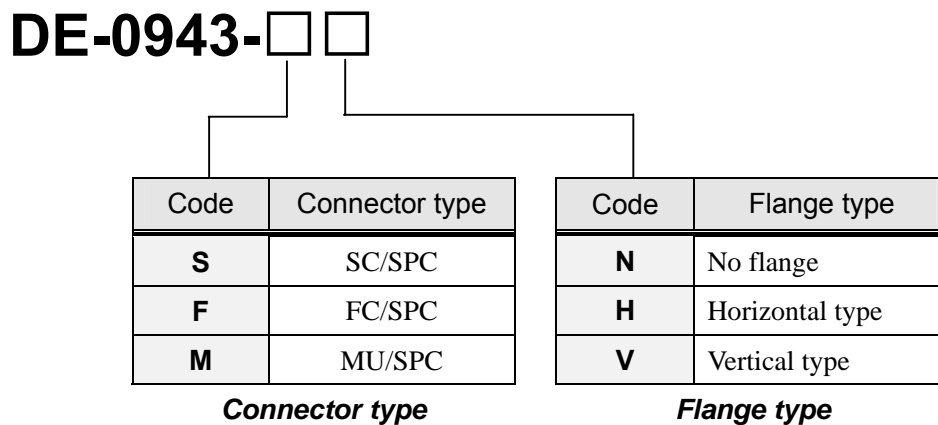
Pin configuration



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



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