

OKI electronic components

OL592N, OL597N, OL5492N, OL5497N

1.55 μ m Laser-Diode Coaxial Module

GENERAL DESCRIPTION

The OL592N, OL597N, OL5492N, and OL5497N are 1.55 μ m, MQW InGaAsP/InP laser-diode coaxial modules with single-mode fiber pigtails. These modules are optimal light sources for high-capacity long-haul optical transmission systems.

FEATURES

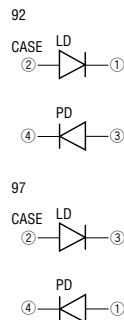
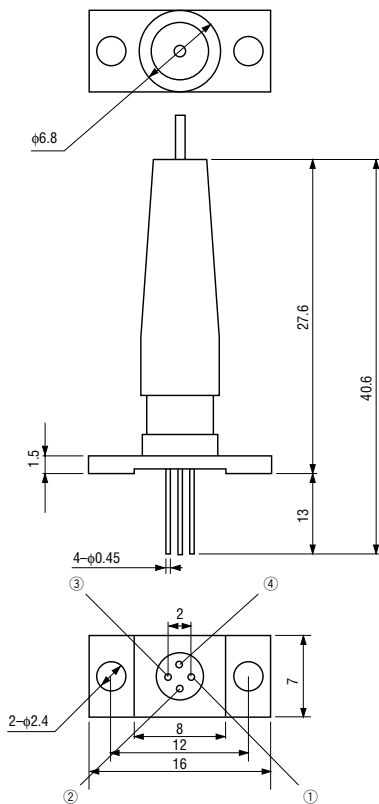
- Fiber output power: $P_f=1$ mW
- Single-mode fiber
- Includes monitor photodiode for power control
- High speed
- Multi-quantum-well (MQW) structure

APPLICATIONS

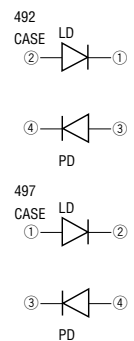
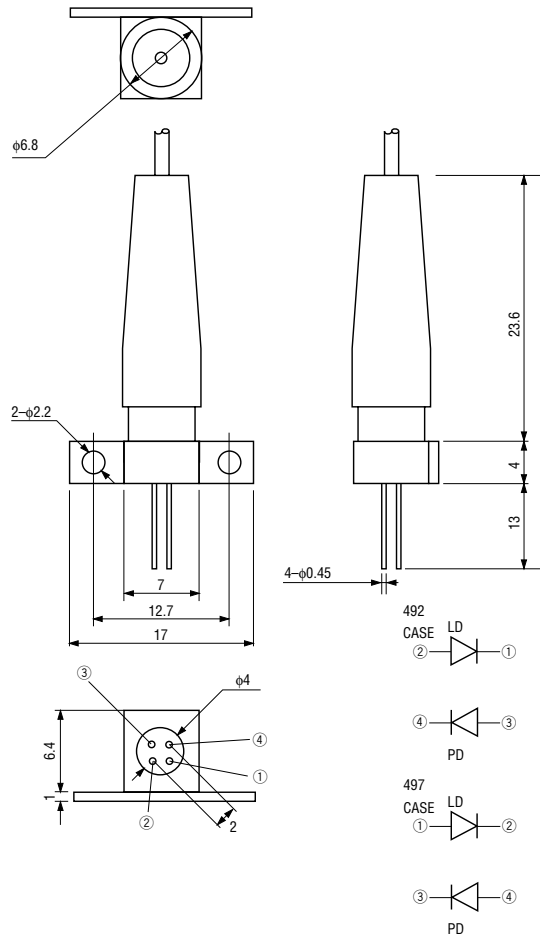
- Line transmission systems
- Subscriber loops
- Optical measuring instruments

PACKAGE DIMENSIONS (Unit: mm)

• OL592N, OL597N



• OL5492N, OL5497N



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Conditions	Ratings	Unit
Fiber Output	Pf	Ta=25°C	2	mW
LD Reverse Voltage	V _R (LD)		2	V
PD Reverse Voltage	V _R (PD)		20	V
PD Forward Current	I _F (PD)		10	mA
Operating Temperature	T _{opr}	—	−20 to +65	°C
Storage Temperature	T _{stg}	—	−40 to +85	°C

OPTICAL AND ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	I _{th}	—	—	20	40	mA
Fiber Output Power	Pf	I _F =I _{th} +30 mA	1.0	—	—	mW
Center Wavelength	λ _c	Pf=1 mW	1520	1550	1580	nm
Spectral Width	σ	Pf=1 mW, RMS	—	—	5	nm
Rise Time	t _r	I _{bias} =I _{th}	—	—	0.5	ns
Fall Time	t _f	Pf=1 mW	—	—	0.8	ns
Forward Voltage	V _F	Pf=1 mW	—	—	1.5	V
PD Dark Current	I _{DARK}	V _R (PD)=5 V	—	—	0.2	μA
Monitor Current	I _m	Pf=1 mW	50	—	—	μA

TYPICAL CHARACTERISTICS

Fiber Output Power vs. Forward Current

