OKI electronic components

OL592N-3, OL597N-3, OL5492N-3, OL5497N-3

1.55 μm 3 mW Coaxial Module

GENERAL DESCRIPTION

The OL592N-3, OL597N-3, OL5492N-3, and OL5497N-3 are 1.55μm, MQW InGaAsP/InP laser-diode modules with a 3 mW output, pigtailed with single mode fibers. These modules are optimal light sources for high-capacity long-haul optical transmission systems.

FEATURES

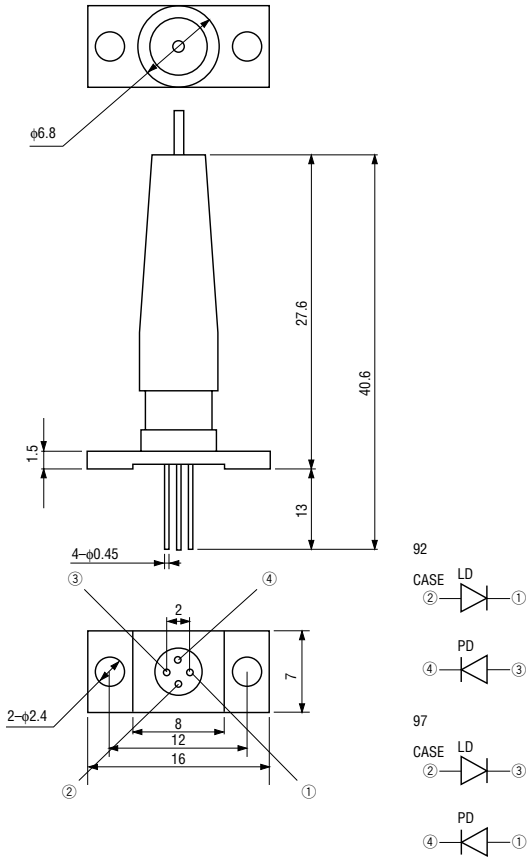
- Single-mode fiber output: Pf=3 mW
- Includes monitor photodiode for power control
- Wide operating temperature range
- Multi-quantum-well (MQW) structure

APPLICATIONS

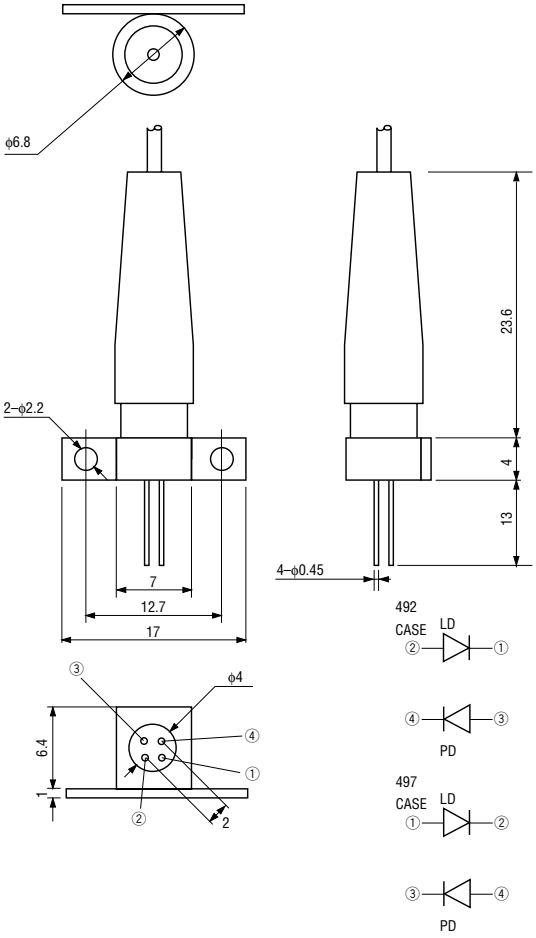
- Optical transmission systems
- Subscriber loops
- Optical measuring equipment

PACKAGE DIMENSIONS (Unit: mm)

• **OL592N-3, OL597N-3**



• **OL5492N-3, OL5497N-3**



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Conditions	Ratings	Unit
Fiber Output	Pf	Ta=25°C	3.5	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	Ith	—	—	10	25	mA
Fiber Output Power	Pf	I_F=Ith+45 mA	3	—	—	mW
Center Wavelength	λc	Pf=3 mW	1520	1550	1580	nm
Spectral Width	σ	Pf=3 mW, RMS	—	—	5	nm
Rise Time	t_r	Ibias=Ith	—	—	0.5	ns
Fall Time	t_f	Pf=3 mW, 10% to 90%	—	—	0.5	ns
Forward Voltage	V_F	Pf=3 mW	—	1.1	1.5	V
PD Dark Current	I_{DARK}	V_R(PD)=5 V	—	0.5	20	nA
Monitor Current	Im	V_R(PD)=5 V, Pf=3 mW	75	300	—	μA

TYPICAL CHARACTERISTICS

Fiber Output Power vs. Forward Current