

# OKI electronic components

## OL392N-2, OL397N-2 OL3942N-2, OL3497N-2

1.3  $\mu\text{m}$  2 mW Coaxial Module

### GENERAL DESCRIPTION

The OL392N-2, OL397N-2, OL3942N-2, and OL3497N-2 are 1.3  $\mu\text{m}$  MQW InGaAsP/InP laser-diode coaxial modules with 2 mW output, pigtailed with single-mode fibers. These modules are optimal light sources for optical subscriber loops and LAN systems.

### FEATURES

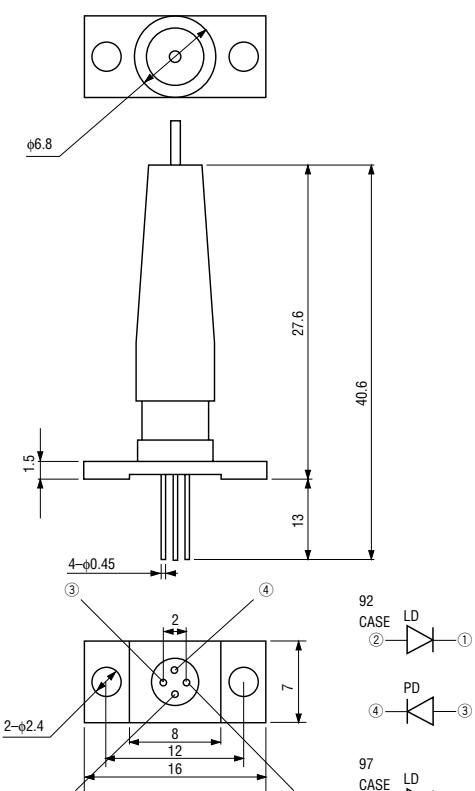
- Single-mode fiber output: Pf=2 mW
- Wide operating temperature range
- Includes monitor photodiode for power control
- Multi-quantum-well (MQW) structure

### APPLICATIONS

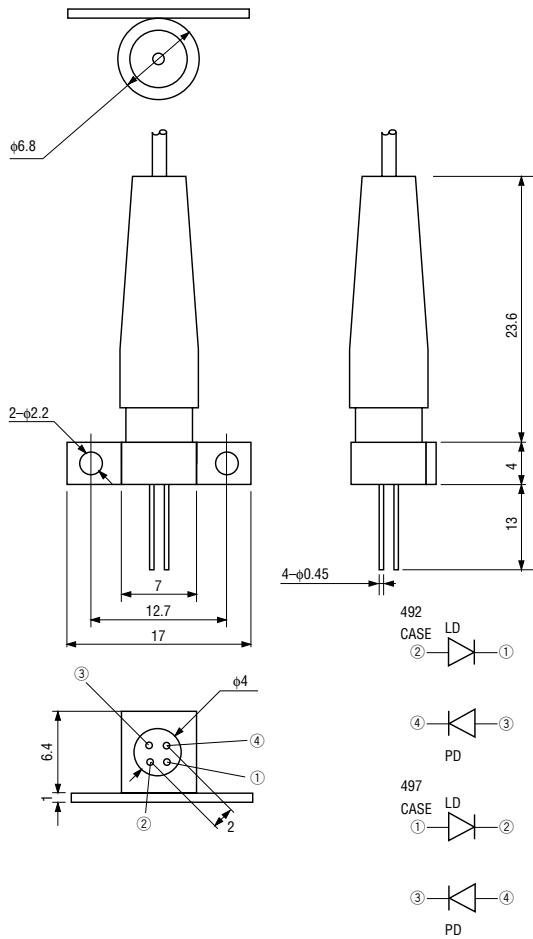
- Subscriber loops
- LAN systems

### PACKAGE DIMENSIONS (Unit: mm)

#### • OL392N-2, OL397N-2



#### • OL3492N-2, OL3497N-2



**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Test Conditions	Ratings	Unit
Fiber Output	P <sub>f</sub>	Ta=25°C	3.0	mW
LD Reverse Voltage	V <sub>R</sub> (LD)		2	V
PD Reverse Voltage	V <sub>R</sub> (PD)		20	V
PD Forward Current	I <sub>F</sub> (PD)		10	mA
Operating Temperature	T <sub>opr</sub>	—	-40 to +85	°C
Storage Temperature	T <sub>stg</sub>	—	-40 to +85	°C

**OPTICAL AND ELECTRICAL CHARACTERISTICS**

(Ta=25°C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	I <sub>th</sub>	—	—	10	25	mA
Fiber Output Power	P <sub>f</sub>	I <sub>F</sub> =I <sub>th</sub> +35 mA	2	—	—	mW
Center Wavelength	λ <sub>c</sub>	P <sub>f</sub> =2 mW	1280	1310	1340	nm
Spectral Width	σ	P <sub>f</sub> =2 mW, RMS	—	—	5	nm
Rise Time	t <sub>r</sub>	I <sub>bias</sub> =I <sub>th</sub>	—	—	0.5	ns
Fall Time	t <sub>f</sub>	P <sub>f</sub> =2 mW, 10% to 90%	—	—	0.5	ns
Forward Voltage	V <sub>F</sub>	P <sub>f</sub> =2 mW	—	1.1	1.5	V
PD Dark Current	I <sub>DARK</sub>	V <sub>F</sub> (PD)=5V	—	0.5	20	nA
Monitor Current	I <sub>m</sub>	V <sub>R</sub> (PD)=5 V, P <sub>f</sub> =2 mW	75	300	—	μA