

# OKI electronic components

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## OL592N-2, OL597N-2, OL5492N-2, OL5497N-2

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### 1.55 $\mu\text{m}$ 2 mW Coaxial Module

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#### GENERAL DESCRIPTION

The OL592N-2, OL597N-2, OL5492N-2, and OL5497N-2 are 1.55 $\mu\text{m}$ , MQW InGaAsP/InP laser-diode modules with a 2mW output, pigtailed with single mode fibers. These modules are optimal light sources for high-capacity long-haul optical transmission systems.

#### FEATURES

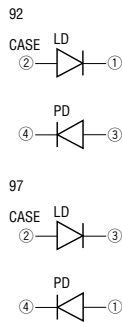
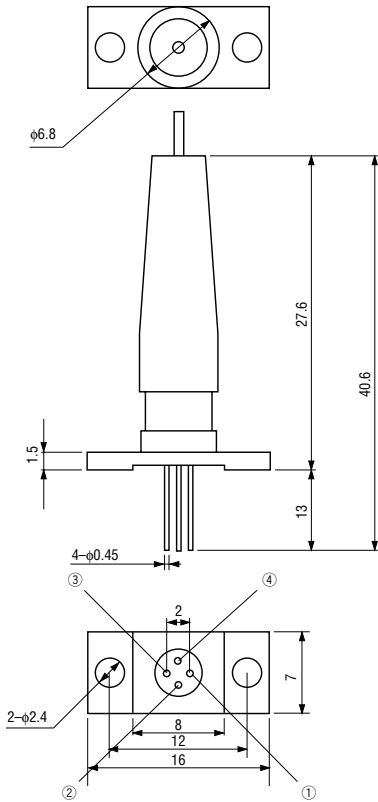
- Single-mode fiber output:  $P_f=2$  mW
- Includes monitor photodiode for power control
- Wide operating temperature range
- Multi-quantum-well (MQW) structure

#### APPLICATIONS

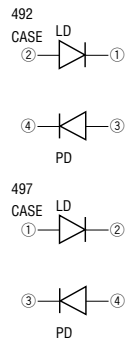
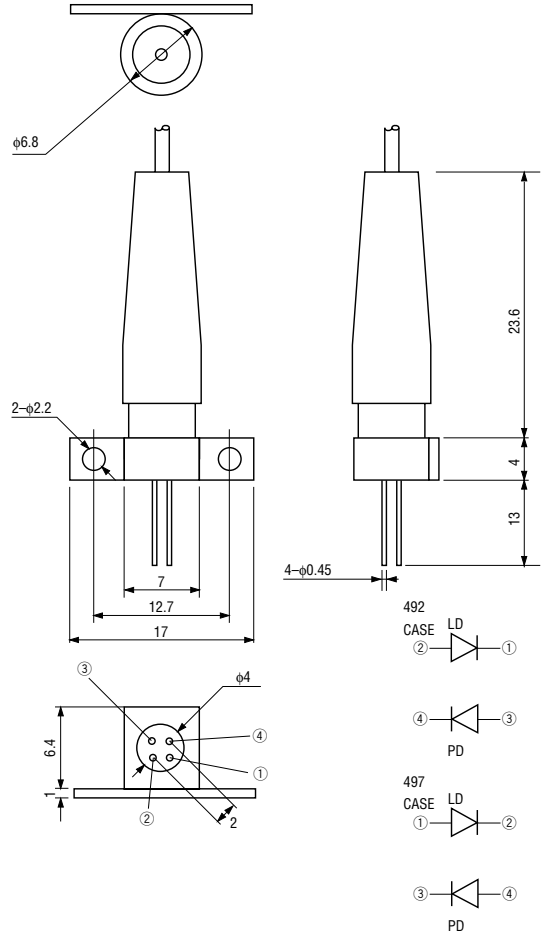
- Optical transmission systems
- Subscriber loops
- Optical measuring equipment

**PACKAGE DIMENSIONS (Unit: mm)**

• **OL592N-2, OL597N-2**



• **OL5492N-2, OL5497N-2**



## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Conditions	Ratings	Unit
Fiber Output	Pf	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>	—	-20 to +65	°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	Pf	I <sub>F</sub> =I <sub>th</sub> +40 mA	2	—	—	mW
Center Wavelength	λ <sub>c</sub>	Pf=2 mW	1520	1550	1580	nm
Spectral Width	σ	Pf=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>	Pf=2 mW, 10% to 90%	—	—	0.5	ns
Forward Voltage	V <sub>F</sub>	Pf=2 mW	—	1.1	1.5	V
PD Dark Current	I <sub>DARK</sub>	V <sub>R</sub> (PD)=5 V	—	0.5	20	nA
Monitor Current	I <sub>m</sub>	V <sub>R</sub> (PD)=5 V, Pf=2 mW	75	300	—	μA