

Electronics Components

ODL0L492L-01
Issue Date:May.2002

OL492L

Preliminary

1480nm DFB Laser Diode Uncooled Coax Module with Single Mode Fiber, Built-in Isolator

1. DESCRIPTION

OL492L is a 1480nm DFB Laser Diode in a panel Mountable coaxial package with single mode fiber without isolator.

2. FEATURES

- Fiber output : Po=1mW
- DFB Laser
- Uncooled coaxial module
- Single mode fiber(SMF)
- Built-in isolator

3. APPLICATION

- WDM supervisory channel in SDH system with optical in-line amplifier

4.OPTICAL AND ELECTRICAL CHARACTERISTICS

(Ta= 25°C, unless otherwitu specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	Ith	CW	---	20	40	mA
Fiber Output Power	Po		1	---	---	mW
Operation Current	Iop	Po=2mW, CW	---	---	120	mA
Forward Voltage	Vf		---	1.1	1.5	V
Peak Wavelength	λ_p		1470	1480	1490	nm
Side Mode Suppression Ratio	SMSR		30	---	---	dB
PD Dark Current	Idark	Vr(PD)=5V	---	---	20	nA
Monitor Current	Im	Pf=2mW, CW, Vr(PD)=5V	50	---	---	μ A
Rise Time	τ_r	Ibias=Ith, Pf=1mW,10-90%	---	---	0.5	ns
Fall Time	τ_f		---	---	0.5	ns

5. ABSOLUTE MAXIMUM RATING

(Ta = 25°C, unless otherwise specified)

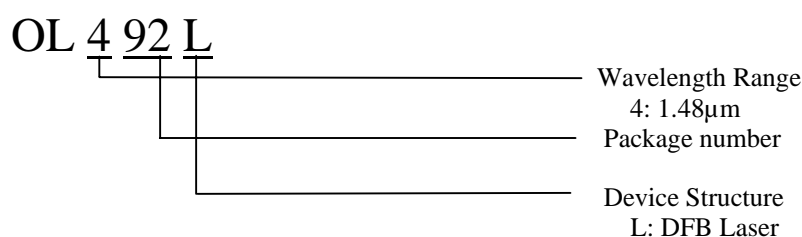
Parameter	Symbol	Rating	Unit
Fiber Output Power	Po	2.5	mW
LD Forward Current	If(LD)	150	mA
LD Reverse Voltage	VR(LD)	2.0	V
PD Forward Current	If(PD)	10	mA
PD Reverse Voltage	VR(PD)	20	V
Operating Temperature	Tc	0 to +60	°C
Storage Temperature	Tstg	-40 to +85	°C
Soldering	Tsld	260(10sec)	°C

Exceeding these ratings may lead to immediate destruction or permanent deterioration of the device.

6. CONNECTOR AND FIBER SPECIFICATIONS

Parameter	Specifications	Unit
Type	SMF	---
Mode Field Diameter	9±1	μm
Cladding Diameter	125±2	μm
Jacket Diameter	900	μm
Length	1 (Min.)	m
Connector	FC/SPC	---

7. ORDERING INFORMATION



8. ATTACHED DATA

Documentation of each device data at 25°C

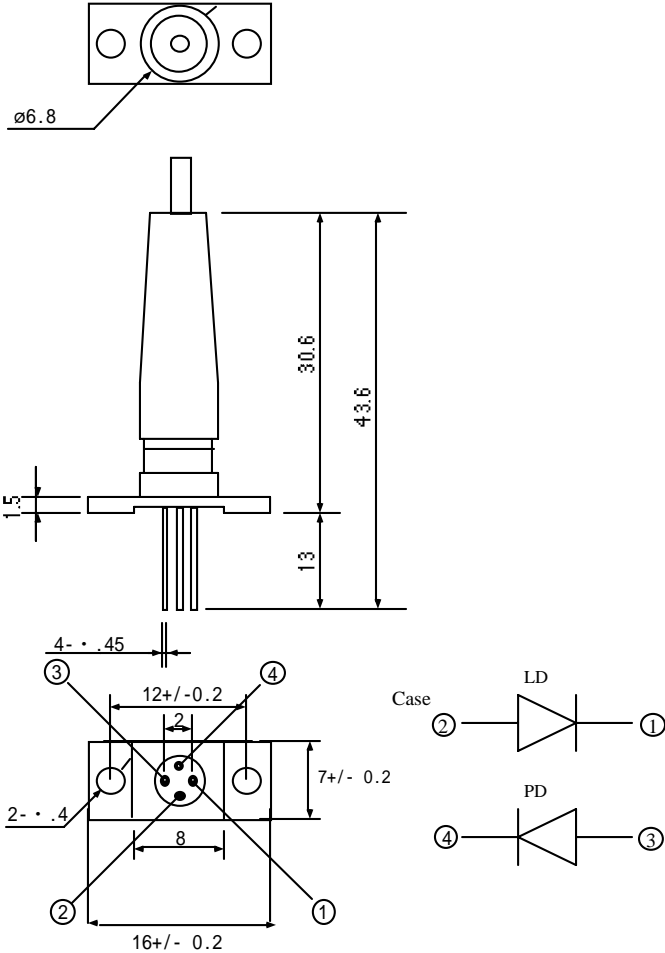
(1) threshold current (Ith), operating current (Iop), monitor current (Im)

Slope efficiency (SE), peak wavelength (λp), Spectrum graph

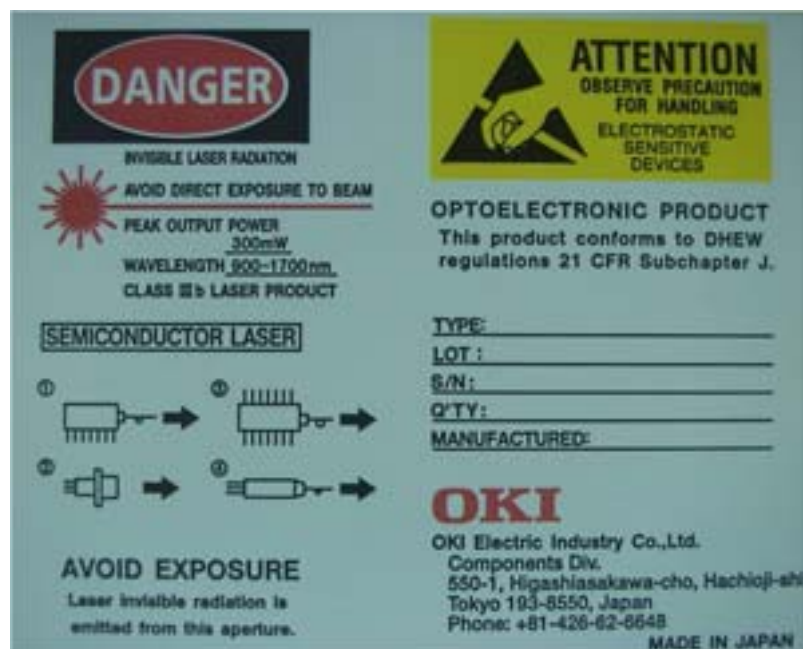
9.OUTLINE DRAWING

All dimensions in millimeters
Tolerances unless noted +/-0.5
Package No. 92(Unit: mm)

Package No.
92-2



10. SAFETY INFORMATION ON THIS PRODUCT



<p>Warning</p> <p>Laser Beam</p>	<p>A laser beam is emitted from this laser diode during operation. The invisible or visible laser beam, directly or indirectly, may cause injury to the eye or loss of eyesight.</p> <p>Do not look directly into the laser beam.</p> <p>Avoid exposure to the laser beam, any reflected or collimated beam.</p>
<p>Caution</p> <p>GaAs Product</p>	<p>The product contains gallium arsenide, GaAs. GaAs vapor and powder are hazardous to human health if inhaled, ingested or swallowed.</p> <p>Do not destroy or burn the product.</p> <p>Do not crush or chemically dissolve the product.</p> <p>Do not put the product in the mouth.</p> <p>Observe related laws and company regulations when discarding this product. The product should be excluded from general industrial waste or household garbage.</p>
<p>Caution</p> <p>Optical Fiber</p>	<p>A glass-fiber is attached on the product. Handle with care.</p> <p>When the fiber is broken or damaged, handle carefully to avoid injury from the damaged part or fragments.</p>

Copyright 2002 Oki Electric Industry Co., Ltd