

OL392L-Wnnn, OL492L-Wnnn, OL592L-Wnnn, OL692L-Wnnn Series

Preliminary

2mW Coaxial DFB Laser Diode Modules with Single Mode Fiber, Built in Isolator.

1. DESCRIPTION

OL392L-Wnnn, OL492L-Wnnn, OL592L-Wnnn, OL692L-Wnnn are laser diode coaxial modules with optical isolator and single mode fiber pigtails.

2. FEATURES

- Single mode fiber output: Po=2mW
- Includes monitor PD for power control
- Multi-quantum-well (MQW) DFB structure
- Side mode suppression ratio: 30dB
- Wide operation temperature range
- Built-in Isolator

3. APPLICATION

- Coarse WDM (~ 1.25Gb/s)

4.OPTICAL AND ELECTRICAL CHARACTERISTICS

(Ta= 0 to 65°C, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit	
Fiber Output Power	Po	CW	2	---	---	mW	
Threshold Current	Ith(25)	CW, Ta=25°C	---	10	35	mA	
Threshold Current	Ith(65)	CW, Ta=65°C	---	27	40	mA	
Operation current	Iop(65)	Po=2mW, CW, Ta=65°C	---	50	120	mA	
Forward Voltage	Vf	Po=2mW, CW	---	1.1	1.5	V	
Peak Wavelength	λ_p	Po=2mW , CW, Ta=25°C	OL392L-W131	1307	1310	1313	nm
			OL492L-W147	1467	1470	1473	nm
			OL492L-W149	1487	1490	1493	nm
			OL592L-W151	1507	1510	1513	nm
			OL592L-W153	1527	1530	1533	nm
			OL592L-W155	1547	1550	1553	nm
			OL592L-W157	1567	1570	1573	nm
			OL592L-W159	1587	1590	1593	nm
			OL692L-W161	1607	1610	1613	nm
Side Mode Suppression Ratio	SMSR	Po=2mW, C, Ta=25°C	30	---	---	dB	
Tracking Error	TRE	Po=2mW,Im=const., related to 25°C	-1.0	---	1.0	dB	
Rise Time	τ_r	Ibias = Ith Po=2mW,10-90%	---	0.3	0.5	ns	
Fall Time	τ_f		---	0.3	0.5	ns	
Photodiode Dark Current	ID	VR(PD)=5V	---	8	50	nA	
Monitor Current	Im	Po=2mW,CW, VR(PD)=5V	50	200	---	μ A	

TRE= 10*log{Pf/Pf(25°C)}

5.ABSOLUTE MAXIMUM RATING

(Ta = 25°C, unless otherwise specified)

Parameter	Symbol	Rating	Unit
Fiber Output Power	Po	3	mW
LD Forward Current	IF(LD)	150	mA
Photodiode Forward Current	IF	10	mA
Photodiode Reverse Voltage	VR(PD)	20	V
Operating Temperature	Ta	0 to 65	°C
Storage Temperature	Tstg	-40 to 85	°C

6. CONNECTOR AND FIBER SPECIFICATIONS

Parameter	Specifications	Unit
Type	SM	---
Mode Field Diameter	9+/-1	μm
Cladding Diameter	125+/-2	μm
Jacket Diameter	900	μm
Length	1 (Min.)	m

7.ORDERING INFORMATION

OL 5 92 L - Wnnn-F

Wavelength	3: 1.3μm, 4: 1.4μm, 5: 1.5μm, 6: 1.6μm
Package Number	
Device Structure	N: MQW-FP Laser L: MQW-DFB Laser
Peak Wavelength	
Connector	F: FC/super PC, S: SC/super PC, M: MU, MJ: MU-J

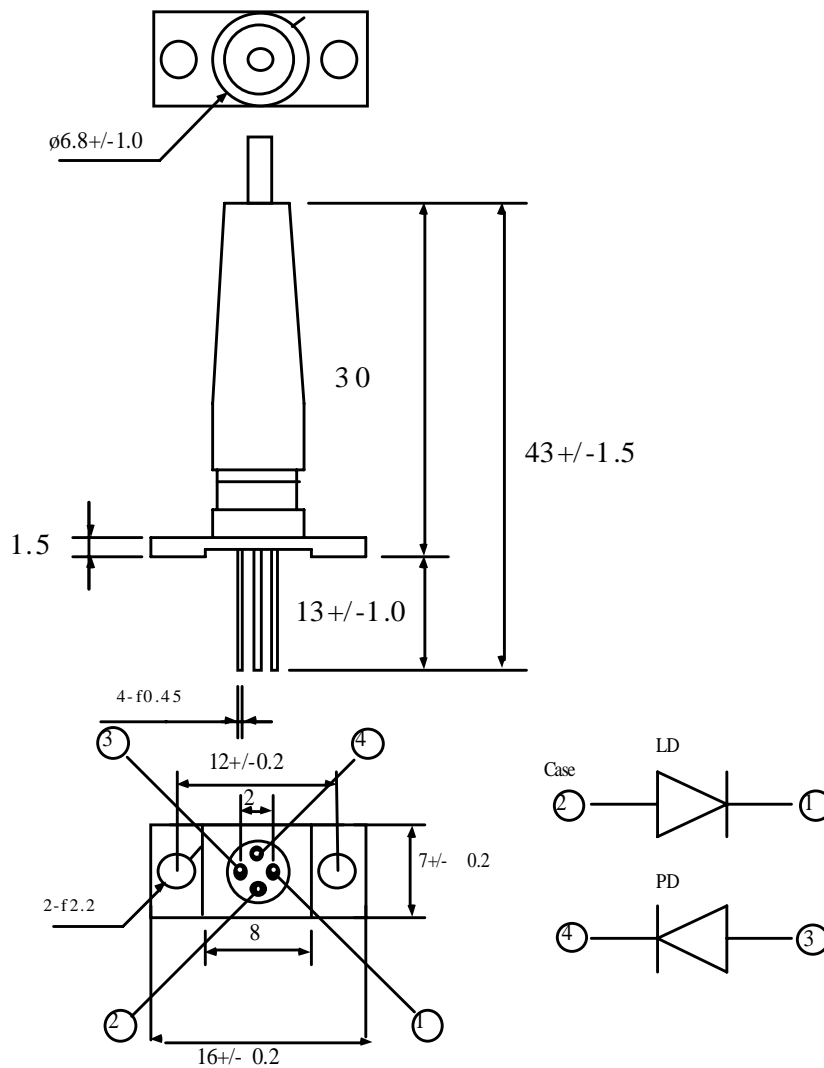
Peak Wavelength(Typ.)	Oki Part Number	Peak Wavelength(Typ.)	Oki Part Number
1310nm	OL392L-W131-*	1550nm	OL592L-W155-*
1470nm	OL492L-W147-*	1570nm	OL592L-W157-*
1490nm	OL492L-W149-*	1590nm	OL592L-W159-*
1510nm	OL592L-W151-*	1610nm	OL692L-W161-*
1530nm	OL592L-W153-*	----	---

*: Connector type

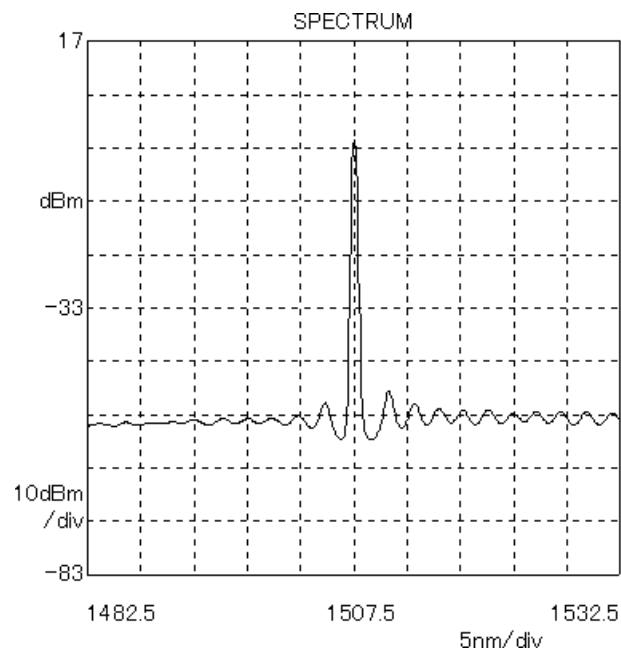
8.OUTLINE DRAWING

All dimensions in millimeters
Tolerances unless noted ± 0.5

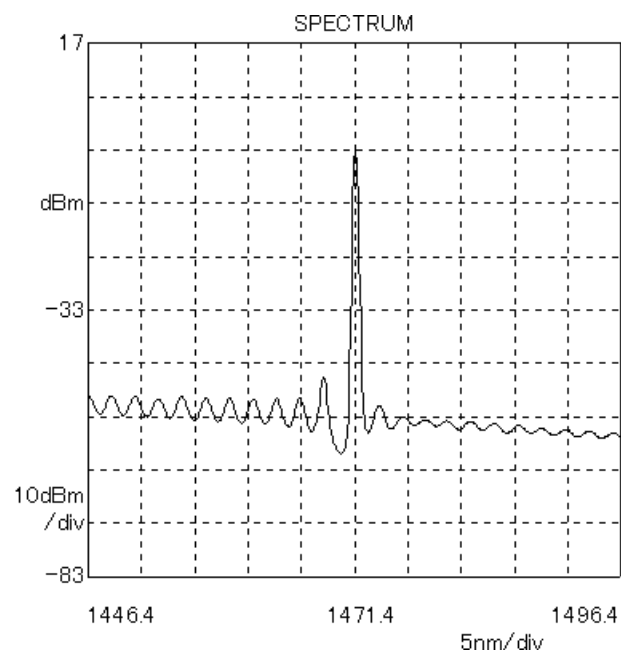
PackageNo.92-2(with Isolator)



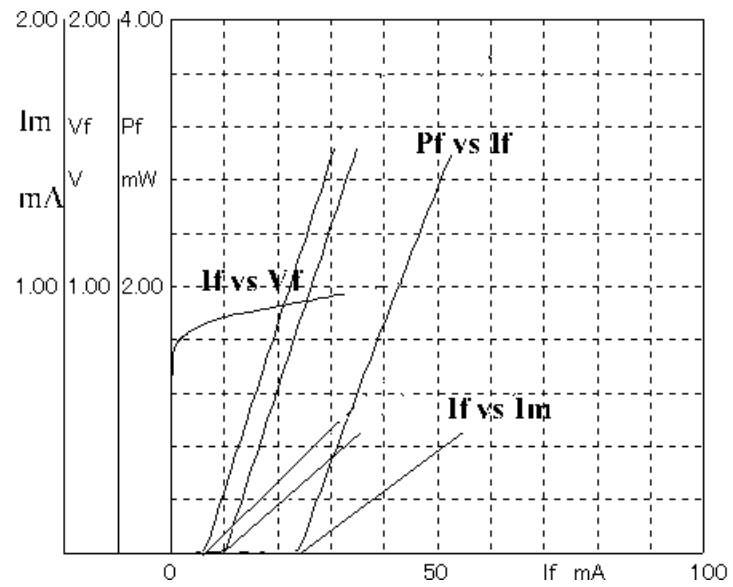
9. Typical characteristics



Peak Wavelength 1510nm



Peak Wavelength 1470nm



Electrical and optical characteristics (0, 25, 65°C)

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