

OLx107L-5 Series

5mW Laser Diode Butterfly Modules with Single Mode Fiber,Built in Cooler, Isolator.

1. DESCRIPTION

OLx107L-5 Series are Laser Diodes in Butterfly package with single mode fiber.

2. FEATURES

- Single mode fiber output : Po=5mW
- Includes monitor PD for power control
- Multi-quantum-well (MQW) DFB structure
- Thermo-electric cooler
- Built-in optical isolator

3. APPLICATION

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

4.OPTICAL AND ELECTRICAL CHARACTERISTICS

(TLD= 25°C, unless otherwise specified)

Parameter	Symbol	Test Conditions		Min.	Typ.	Max.	Unit
Threshold Current	Ith	CW		---	---	30	mA
Operation current	Iop	Po=5mW, CW		---	---	100	mA
Forward Voltage	Vf	Po=5mW, CW		---	---	3	V
Peak Wavelength	λ p	Po=5mW , CW	OL4107L-5	1470	1480	1490	nm
			OL5107L-5A	1505	1510	1515	nm
			OL6107L-5A	1615	1625	1635	nm
			OL6107L-5B	1640	1650	1660	nm
Spectral width	$\Delta\lambda$	Po=5mW, CW, -20dB		---	---	1	nm
Side Mode Suppression Ratio	SMSR	Po=5mW, CW		30	---	---	dB
Isolation	---	Tc=-5 to 65°C		20	---	---	dB
Rise Time	τ r	Ibias = Ith		---	---	0.5	ns
Fall Time	τ f	Po=5mW,10-90%		---	---	0.5	ns
Photodiode Dark Current	ID	VR(PD)=5V		---	---	1	μ A
Monitor Current	Im	Po=5mW,CW, VR(PD)=5V		50	---	---	μ A
PD Capacitance	Ct	VR(PD)=5V,f=1MHz		---	15	---	pF
Cooler Capacity	Δ T	Po=5mW		40	---	---	°C
Cooler Current	Ic	Δ T=40°C,Po=5mW		---	---	1.2	A
Cooler Voltage	Vc	Δ T=40°C,Po=5mW		---	---	2.4	V
Thermistor Resistance	Rth	Tthm = 25 °C		9.5	---	10.5	k Ω

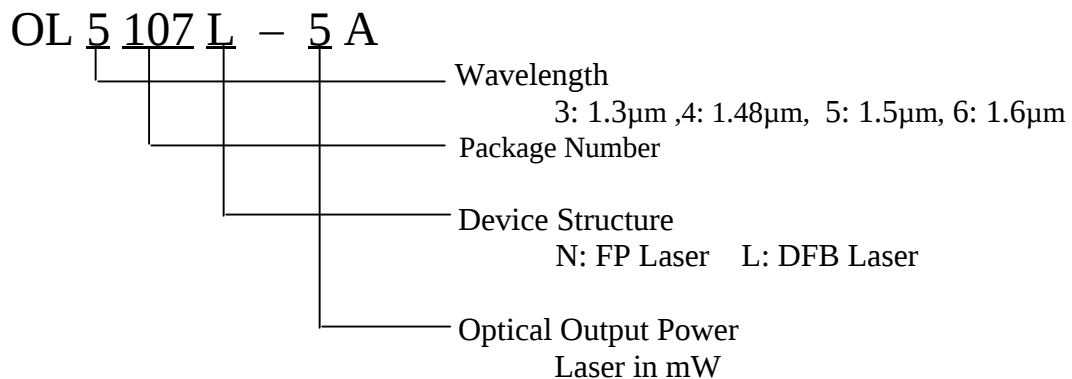
5.ABSOLUTE MAXIMUM RATING

(Tc = 25°C, unless otherwise specified)

Parameter	Symbol	Rating	Unit
Fiber Output Power	Po	6	mW
LD Reverse Voltage	VR	2	V
Photodiode Forward Current	IF	10	mA
Photodiode Reverse Voltage	Vr(PD)	20	V
Cooler Curent	Ic	1.4	A
Operating Case	Tc	-5 to 65	°C
Storage Temperature	Tstg	-40 to 85	°C
Lead Soldering	-	260 (10sec)	°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
Connector	FC/SPC	---

7.ORDERING INFORMATION

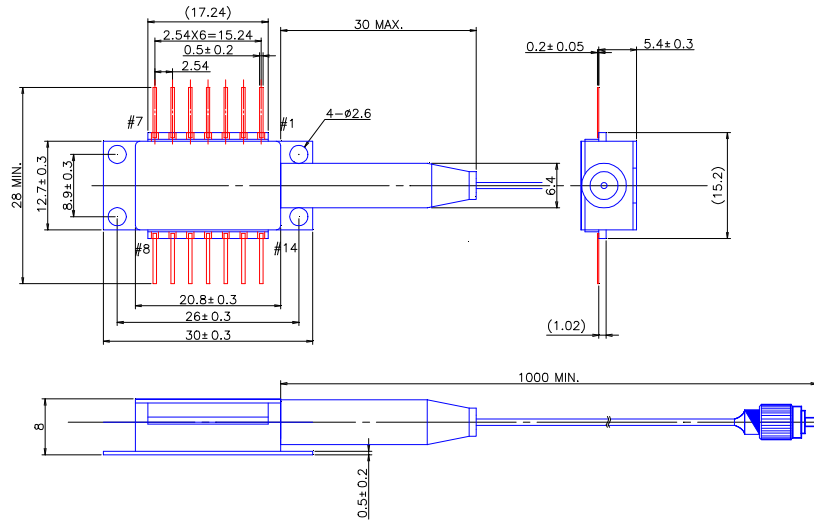
Peak Wavelength(Typ.)	Oki Part Number
1480nm	OL4107L-5
1510nm	OL5107L-5A
1625nm	OL6107L-5A
1650nm	OL6107L-5B

8.OUTLINE DRAWING

All dimensions in millimeters

Tolerances unless noted +/-0.5

Package No. 107(Unit: mm)



Package Pinout

Pin No.		Pin No.	
1	Thermistor	8	GND
2	Thermistor	9	GND
3	NC	10	GND
4	Monitor Anode	11	LD Anode,GND
5	Monitor Cathode	12	LD Cathode
6	TEC+	13	GND
7	TEC-	14	GND