

OLx207L-5 Series

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

1. DESCRIPTION

OLx207L-5 Series are Laser Diodes in DIL package with single mode fiber.

2. FEATURES

- Single mode fiber output : $P_o=5\text{mW}$
- 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

($T_{LD}=25^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit	
Threshold Current	I_{th}	CW	---	---	30	mA	
Operation current	I_{op}	$P_o=5\text{mW}$, CW	---	---	100	mA	
Forward Voltage	V_f	$P_o=5\text{mW}$, CW	---	---	3	V	
Peak Wavelength	λ_p	$P_o=5\text{mW}$, CW	OL4207L-5	1470	1480	1490	nm
			OL5207L-5A	1505	1510	1515	nm
			OL5207L-5B	1505	1520	1525	nm
			OL6207L-5A	1615	1625	1635	nm
			OL6207L-5B	1640	1650	1660	nm
Spectral width	$\Delta\lambda$	$P_o=5\text{mW}$, CW, -20dB	---	---	1	nm	
Side Mode Suppression Ratio	SMSR	$P_o=5\text{mW}$, CW	30	---	---	dB	
Isolation	---	$T_c=-5$ to 65°C	20	---	---	dB	
Rise Time	τ_r	$I_{bias} = I_{th}$	---	---	0.5	ns	
Fall Time	τ_f	$P_o=5\text{mW}$, 10-90%	---	---	0.5	ns	
Photodiode Dark Current	I_D	$V_r(\text{PD})=5\text{V}$	---	---	1	μA	
Monitor Current	I_m	$P_o=5\text{mW}$, CW, $V_r(\text{PD})=5\text{V}$	50	---	---	μA	
PD Capacitance	C_t	$V_r(\text{PD})=5\text{V}$, $f=1\text{MHz}$	---	15	---	pF	
Cooler Capacity	ΔT	$P_o=5\text{mW}$	40	---	---	$^\circ\text{C}$	
Cooler Current	I_c	$\Delta T=40^\circ\text{C}$, $P_o=5\text{mW}$	---	---	1.2	A	
Cooler Voltage	V_c	$\Delta T=40^\circ\text{C}$, $P_o=5\text{mW}$	---	---	2.4	V	
Thermistor Resistance	R_{th}	$T_{thm} = 25^\circ\text{C}$	9.5	---	10.5	k Ω	

5.ABSOLUTE MAXIMUM RATING

(Tc= 25°C, unless otherwise specified)

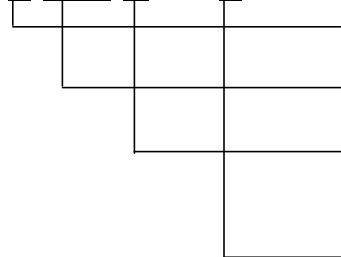
Parameter	Symbol	Rating	Unit
Fiber Output Power	Po	6	mW
LD Reverse Voltage	VR	2	V
Photodiode Forward Current	IF	10	mA
Photodiode Reverse Voltage	VR(PD)	20	V
Cooler Current	Ic	1.4	A
Operating Case	Tc	-5 to 65	°C
Storage Temperature	Tstg	-40 to 85	°C
Lead Soldering	-	260 (10sec)	°C

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

OL 5 207 L - 5 A



Wavelength

3: 1.3μm, 4: 1.48μm, 5: 1.5μm, 6: 1.6μm

Package Number

Device Structure

N: FP Laser L: DFB Laser

Optical Output Power

Laser in mW

Peak Wavelength(Typ.)	Oki Part Number
1480nm	OL4207L-5
1510nm	OL5207L-5A
1625nm	OL6207L-5A
1650nm	OL6207L-5B

8.OUTLINE DRAWING

All dimensions in millimeters
 Tolerances unless noted +/-0.5
 Package No. 207(Unit: mm)

