

OL4204N-50-P10-W10**Preliminary**1410nm \pm 10nm 50mW Pulsed MQW Laser Diode DIL Module with SMF.**1. DESCRIPTION**

OL4204N-50-P10-W10 is a 1410nm Laser Diode in DIL package with SMF.

2. FEATURES

- Fiber output : Po=50mW
- Pulsed MQW FP Laser
- 14-pin DIL package module
- Single mode fiber(SMF)
- Built-in TEC

3. APPLICATION

- OTDRs
- Optical measuring instruments

4. OPTICAL AND ELECTRICAL CHARACTERISTICS(TLD= 25°C, 10 μ s pulse width and 1% duty)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	I _{th}	---	---	25	50	mA
Operation Current	I _{op}	Po=50mW	---	---	550	mA
LD Forward Voltage	V _f		---	---	2.5	V
Center Wavelength	λ_c		1400	1410	1420	nm
Spectral Width	σ	Po=50mW, RMS \times 1	---	5	10	nm
Cooler Capacity	ΔT	Po=50mW	40	---	---	°C
Cooler Current	I _c	$\Delta T=40^\circ$ C, Po=50mW	---	---	1	A
Cooler Voltage	V _c		---	---	2	V
Thermistor Resistance	R _{th}	---	---	10	---	k Ω

5.ABSOLUTE MAXIMUM RATING

(Tc = 25°C, unless otherwise specified)

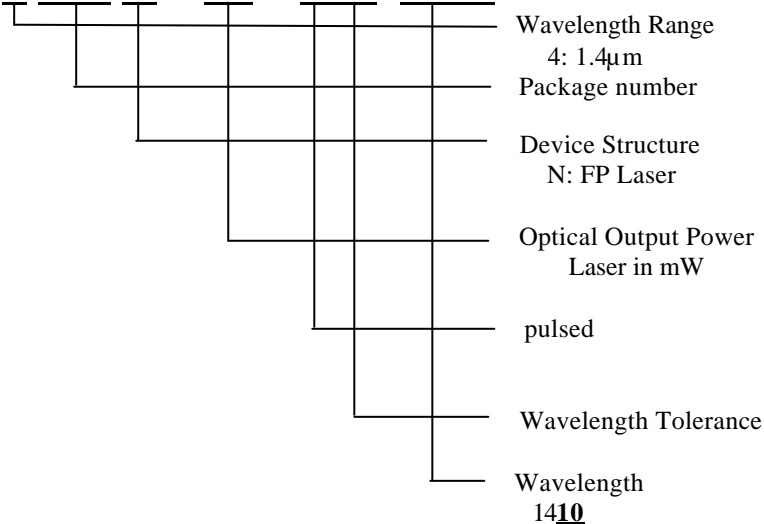
Parameter	Symbol	Rating	Unit
Fiber Output Power	Po	60*	mW
LD Reverse Voltage	VR(LD)	2.0	V
LD Forward Current	IF(LD)	600*	mA
Cooler Current	Ic	1.2	A
Operating Temperature	Topr	-20 to +65	°C
Storage Temperature	Tstg	-40 to +70	°C

Pulse width ≤ 10μs , duty ≤ 1%

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

6. CONNECTOR AND FIBER SPECIFICATIONS

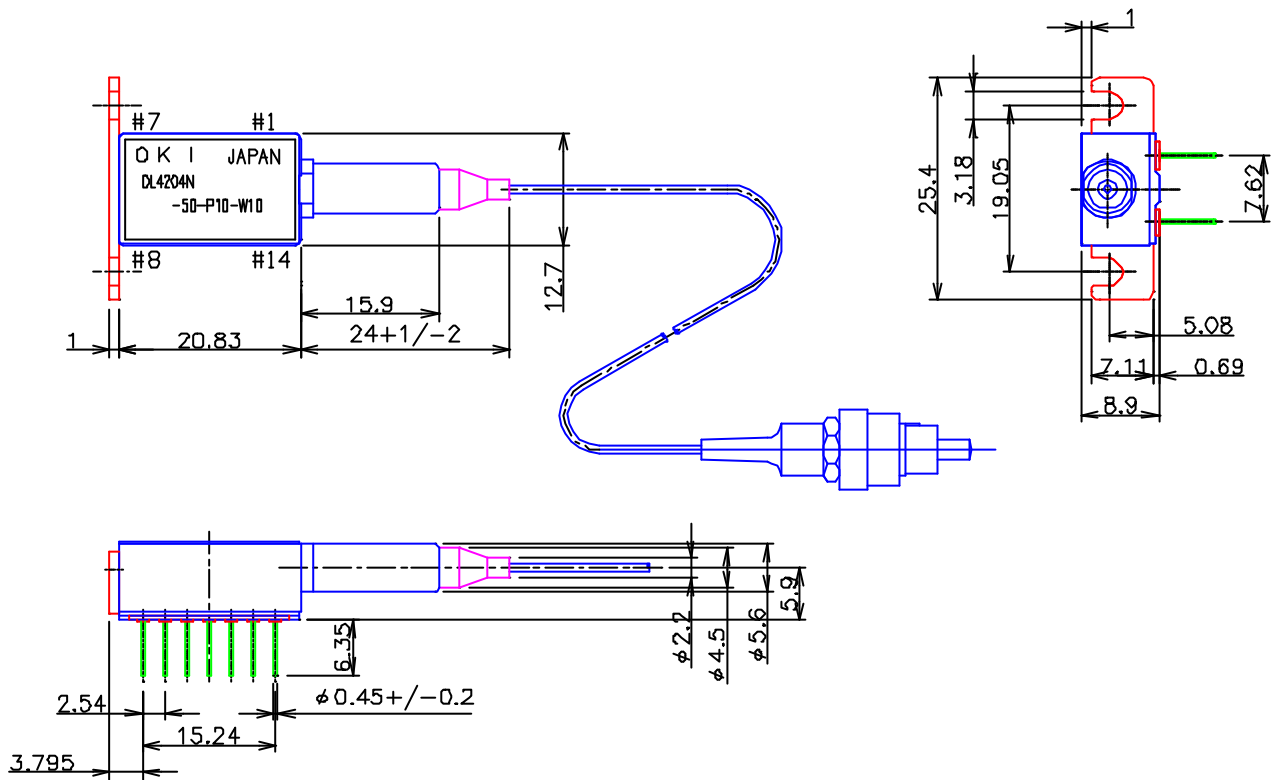
Parameter	Specifications	Unit
Type	SMF	---
Mode Field Diameter	10±1	μm
Cladding Diameter	125±2	μm
Jacket Diameter	900	μm
Length	1 (Min.)	m
Connector	FC/SPC	---

7.ORDERING INFORMATIONOL 4 204 N - 50 - P10 - W10**8.ATTACHED DATA**

- (1) If-Po graph at 25°C (2) spectrum graph at 25°C, Po=50mW (3) operating current (Iop) at 25°C
 (4) center wavelength(λc) at 25°C, Po=50mW (5) Spectral Width(σ) at 25°C

9.OUTLINE DRAWING

All dimensions in millimeters
 Tolerances unless noted +/-0.5
 Package No. 204(Unit: mm)



Package Pinout

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

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>