OKI electronic components

OL3204N-100/P

1.3 μm High-Power DIP Module with 9mm Profile

GENERAL DESCRIPTION

The OL3204N-100P is a 1.3 μm high-power laser in a 14-pin DIL package with 9mm profile. Having extreme high output power in pulsed operation, this device can be used in optical measurement equipment like OTDR systems.

FEATURES

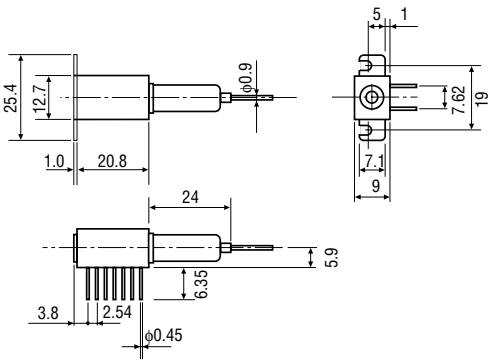
- Fiber output power: Pf=100 mW (pulse width 10 μs, duty ratio 1 %)
- Cooled DIL Package, 9mm hight

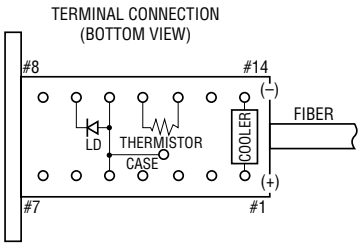
APPLICATIONS

- Optical measurement equipment
- OTDR

PACKAGE DIMENSIONS (Unit: mm)

- **OL3204N-100/P**





PIN No.	FUNCTION	PIN No.	FUNCTION
1	COOLER ANODE	8	NC
2	NC	9	LD CATHODE
3	NC	10	LD ANODE and
4	NC		CASE GROUND
5	LD ANODE and	11	THERMISTOR
	CASE GROUND	12	THERMISTOR
6	NC	13	NC
7	NC	14	COOLER CATHODE

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Conditions	Ratings	Unit
Fiber Output Power	Pf	Ta=25°C	110*	mW
LD Reverse Voltage	V_R (LD)		2	V
LD Forward Current	I_F (LD)		800*	mA
Cooler Current	Ic		1.2	A
Operating Temperature	T_{opr}	—	–20 to +65	°C
Storage Temperature	T_{stg}	—	–40 to +70	°C

*Pulse width less than 10 μs, duty ratio less than 1 %

OPTICAL AND ELECTRICAL CHARACTERISTICS

(T_{LD}=25°C, 10 μs Pulse Width and 1 % Duty Ratio)

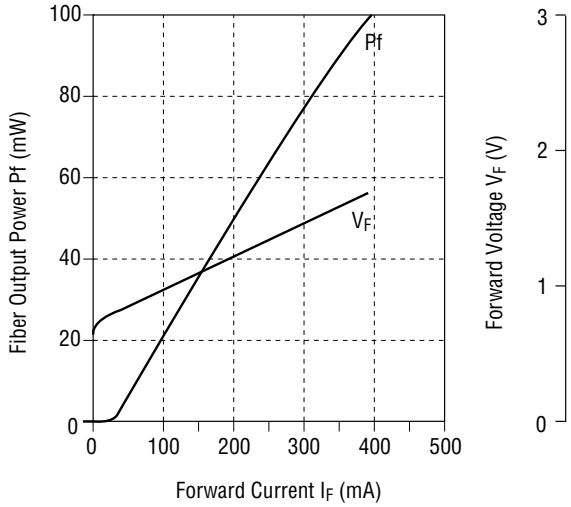
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	Ith	—	—	20	50	mA
Fiber Output Power	Pf	I_F=750 mA	100	—	—	mW
Center Wavelength	λc	Pf=100 mW	1290	1310	1330	nm
Spectral Width	σ	Pf=100 mW, RMS×1	—	—	10	nm
Forward Voltage	V_F	Pf=100 mW	—	1.7	3	V
Cooler Capacity	ΔT	Pf=100 mW	40	—	—	°C
Cooler Current	Ic	ΔT=40°C, Pf=100mW	—	—	1	A
Cooler Voltage	Vc	ΔT=40°C, Pf=100mW	—	—	2	V
Thermistor Resistance	Rth	—	—	10	—	kΩ

FIBER PIGTAIL SPECIFICATIONS

Parameter	Specifications	Unit
Fiber Type	Single-mode	—
Mode Field Diameter	10±1	μm
Cladding Diameter	125±2	μm
Jacket Diameter	900	μm
Length	1 (Min.)	m
Connector	FC	—

TYPICAL CHARACTERISTICS

Fiber Output Power vs. Forward Current



Oscillation Spectrum