

OKI electronic components

OL5204N-50/P

1.55 μm High-Power DIP Module with 9mm Profile

GENERAL DESCRIPTION

The OL5204N-50/P is a 1.55 μm high-power laser in a 14-pin DIL package with 9mm profile. Having extreme high-power in pulsed condition, this device can be used in an optical measurement equipment like OTDR systems.

FEATURES

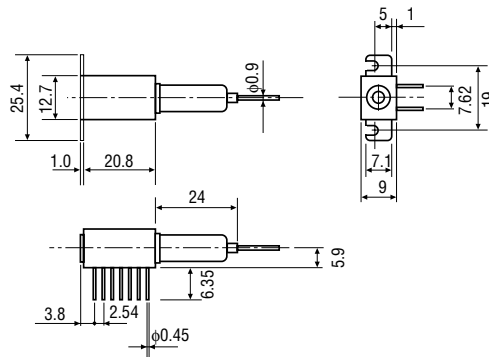
- Fiber output power: $P_f=50\text{ mW}$ (pulse width 10 μs , duty ratio 1 %)
- Cooled DIL Package, 9mm high

APPLICATIONS

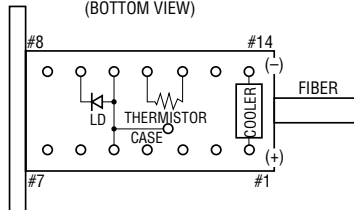
- Optical measurement equipment
- OTDR

PACKAGE DIMENSIONS (Unit: mm)

- OL5204N-50/P



TERMINAL CONNECTION
(BOTTOM VIEW)



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	P _f	T _a =25°C	60*	mW
LD Reverse Voltage	V _R (LD)		2	V
LD Forward Current	I _F (LD)		800*	mA
Cooler Current	I _c		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)

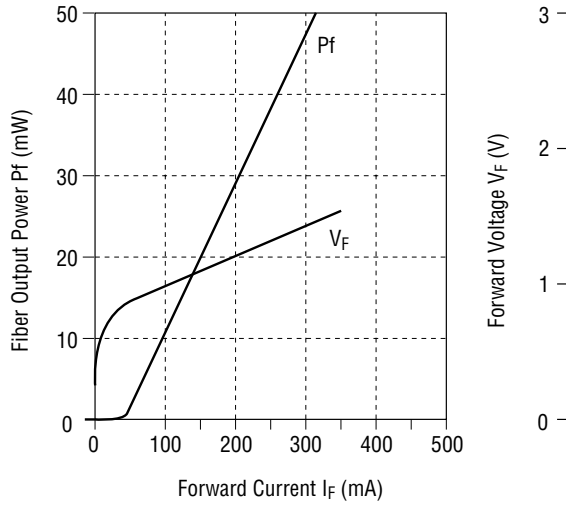
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	I _{th}	—	—	20	50	mA
Fiber Output Power	P _f	I _F =750 mA	50	—	—	mW
Center Wavelength	λ _c	P _f =50 mW	1530	1550	1580	nm
Spectral Width	σ	P _f =50 mW, RMS×1	—	—	10	nm
Forward Voltage	V _F	P _f =50 mW	—	1.7	3	V
Cooler Capacity	ΔT	50 mW	40	—	—	°C
Cooler Current	I _c	ΔT=40°C, P _f =50mW	—	—	1	A
Cooler Voltage	V _c	ΔT=40°C, P _f =50mW	—	—	2	V
Thermistor Resistance	R _{th}	—	—	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

