OKI electronic components

OL3200N-5

1.3 μm High-Power Laser-Diode DIP Module

GENERAL DESCRIPTION

The OL3200N-5 is a 1.3 μm, high-power laser diode DIP module with a single-mode fiber pigtail. The high-performance OKI laser diode achieved a single-mode fiber output of over 5 mW. This module is an optimal light source for long-haul fiber transmission systems and optical measuring instruments.

FEATURES

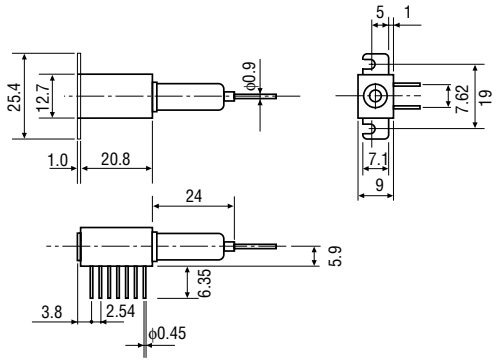
- High output power: Pf=5 mW
- Single-mode fiber
- Hermetically-sealed,14-pin Dual-In-line Package (DIP)
- Includes thermoelectric cooler and monitor photodiode for temperature and power control

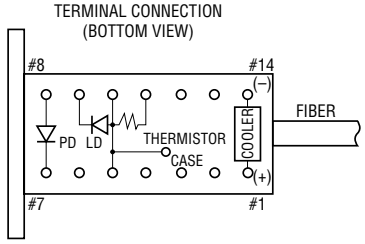
APPLICATIONS

- Line transmission systems
- Subscriber loops
- Optical measuring instruments

PACKAGE DIMENSIONS (Unit: mm)

- **OL3200N-5**





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

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Conditions	Ratings	Unit
Fiber Output	Pf	Ta=25°C	7	mW
LD Reverse Voltage	V_R (LD)		2	V
PD Reverse Voltage	V_R (PD)		20	V
PD Forward Current	I_F (PD)		10	mA
Cooler Current	Ic		1.2	A
Operating Temperature	T_{opr}	—	–20 to +65	°C
Storage Temperature	T_{stg}	—	–20 to +70	°C

OPTICAL AND ELECTRICAL CHARACTERISTICS

(T_{LD}=25°C)

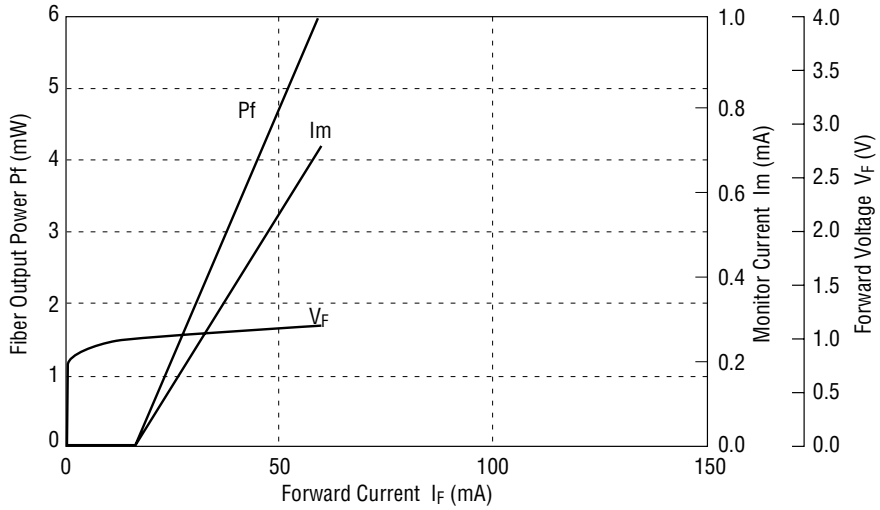
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	Ith	—	—	20	35	mA
Operating Current	Iop	Pf=5 mW	—	100	140	mA
Center Wavelength	λc	Pf=5 mW	1280	1310	1330	nm
Spectral Half Width	Δλ	Pf=5 mW	—	3	7	nm
Forward Voltage	V_F	Pf=5 mW	—	—	2	V
PD Dark Current	I_{DARK}	V_R (PD)= 5 V	—	—	1	μA
Monitor Current	Im	Pf=5 mW	0.2	1.0	—	mA
PD Capacitance	Ct	V_R (PD)=5 V, f=1 MHz	—	15	—	pF
Cooler Capacity	ΔT	Pf=5 mW	40	—	—	°C
Cooler Current	Ic	ΔT=40°C	—	—	1.2	A
Cooler Voltage	Vc	ΔT=40°C	—	—	3	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