



DATA SHEET

O K I L A S E R P R O D U C T S

OL4201N
Service Channel FP Laser Module
(1480 nm, 1 mW)

October 1999



Oki Semiconductor



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OL4201N Service Channel FP Laser Module

2.5 Gbps, 1480-nm, 1 mW Service Channel Laser Module

INTRODUCTION

Oki Semiconductor's OL4201N dual in-line package service channel laser diode module features a cooled 1480-nm MQW laser diode coupled to a single-mode fiber. The OL4201N has a built-in thermoelectric cooler and is equipped with a monitor photodiode.

FEATURES

- 1480-nm MQW FP Laser
- Single-mode fiber
- Built-in thermoelectric cooler
- 1-mW fiber output power
- Includes photodiode for power monitoring
- 14-pin DIL package

APPLICATIONS

- WDM systems service channel
- Service Channel
- Cross connect systems
- Fiber-optic light source
- Telemetry systems
- Test instrumentation

ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings (ambient temperature Ta=25°C unless otherwise noted)

Parameter	Symbol	Ratings	Units
Fiber Output Power	Pf	5	mW
Laser diode forward current	I _{F(LD)}	150	mA
Thermoelectric cooler voltage	V _{TEC}	3.0	V
Thermoelectric cooler current	I _{TEC}	1.5	A
Operating Temperature	T _{opr}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +85	°C

Exceeding these maximum ratings could cause immediate damage or lead to permanent deterioration of the device.

Optical and Electrical Characteristics Ta=25°C

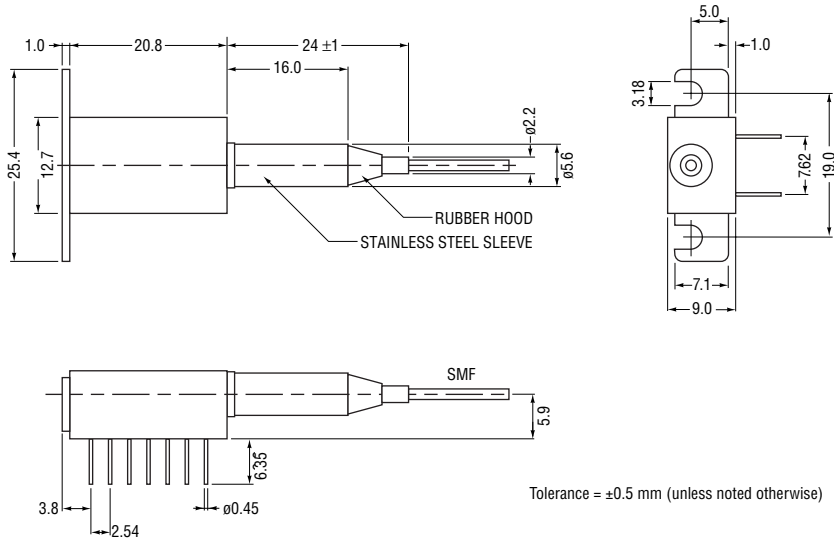
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Fiber output power	Pf	I _{F(LD)} =I _{th} + 20 mA	1	-	-	mW
Center wavelength	λ _C	Pf= 1 mW	1470	-	1490	nm
RMS Spectral width	σ	Pf=1 mW, CW, RMS	-	-	5	nm
Thermistor resistance	R _{th}	-	9.5	-	10.5	kΩ

Fiber Pigtail Specifications

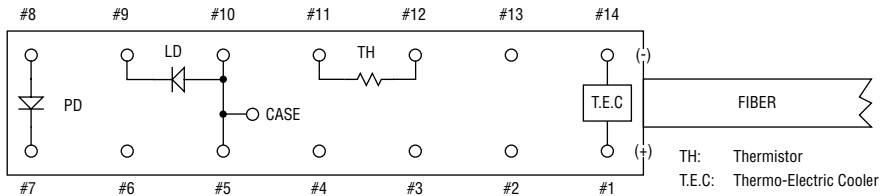
Parameter	Specifications	Units
Type	SM	---
Mode field diameter	9 +/- 1	μm
Cladding diameter	125 +/- 2	μm
Jacket diameter	900	μm
Length	1 (minimum)	m
Connector	FC/PC	-

PACKAGE DIMENSIONS

(Units: mm)



TERMINAL CONNECTION (BOTTOM VIEW - NOT TO SCALE)



Pin Configuration

Pin No.	Description	Pin No.	Description
01	Thermo Electric Cooler Anode (+)	08	PD Anode
02	NC	09	LD Cathode
03	NC	10	LD Anode, Case Ground, and internal connect to pin 5
04	NC	11	Thermistor
05	LD Anode, Case Ground, and internal connect to pin 10	12	Thermistor
06	NC	13	NC
07	PD Cathode	14	Thermo Electric Cooler Cathode (-)

Notes:

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Please make sure before using the product that the information you are referring to is up-to-date.

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