



DATA SHEET

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

OL6201N-5-A10 Service Channel FP Laser Module (1625 nm, 5 mW)

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Oki Semiconductor



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OL6201N-5-A10 Laser Module

1625-nm Service Channel FP Laser Module

INTRODUCTION

Oki Semiconductor's OL6201N-5-A10 dual in-line package laser diode module features a cooled 1625-nm laser diode coupled to a single-mode fiber. The OL6201N-5-A10 has built-in thermoelectric cooler and is equipped with a monitor photodiode.

FEATURES

- 1625-nm MQW FP Laser
- Single-mode fiber
- Built-in thermoelectric cooler
- 5-mW fiber output power
- Includes a photodiode for power monitoring
- 14-pin DIL package

APPLICATIONS

- WDM systems
- 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	7	mW
Laser diode reverse voltage	V _{RLD}	2	V
Laser diode forward current	I _{FLD}	200	mA
Photo diode reverse voltage	V _{RPD}	20	V
Photo diode forward current	I _{FPD}	10	mA
Thermoelectric cooler voltage	V _{TEC}	3.0	V
Thermoelectric cooler current	I _{TEC}	1.5	A
Operating Temperature	Topr	-20 to +65	°C
Storage Temperature	Tstg	-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)

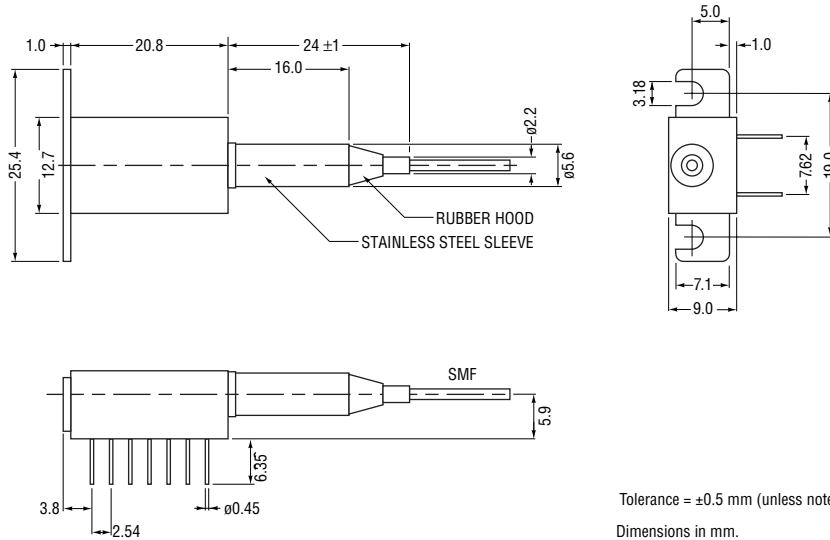
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Fiber output power	Pf	I _{F(LD)} =150 mA	5	-	-	mW
Threshold current	I _{th}		-	-	60	mA
Laser diode operating current	I _{F(LD)}		-	150	180	mA
Laser diode operating voltage	V _{F(LD)}		-	-	2.5	V
Center wavelength	λ _C	Pf= 5 mW, CW	1610	-	1635	nm
RMS Spectral width	σ	Pf=5 mW, CW, RMS	-	-	5	nm
Rise time	τ _R	I _{BIAS} =I _{th} Pf=5 mW, 10-90%	-	-	1	ns
Fall time	τ _F		-	-	1	ns
PD capacitance	C _T		-	15	-	pF
Thermoelectric cooler capacity	Δ _T	Pf=5 mW	40	-	-	°C
Thermoelectric cooler current	I _{TEC}	Δ _T =40°C, Pf=5 mW	-	-	1.0	A
Thermoelectric cooler voltage	V _{TEC}	Δ _T =40°C, Pf=5 mW	-	-	2.0	V
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	-

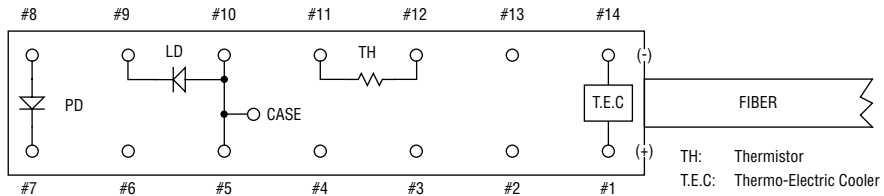
PACKAGE DIMENSIONS

(Units: mm)



Tolerance = ±0.5 mm (unless noted otherwise)
Dimensions in 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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