



DATA SHEET

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

OL6205N-1-A10 **MQW Laser Diode Uncooled Dil Module** **(1625 nm +/-10 nm, 1 mW)**

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Oki Semiconductor



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OL6205N-1-A10 Laser Diode Module

1625-nm, Uncooled Dil Module for Single-Mode Fiber

INTRODUCTION

Oki Semiconductor's OL6205N-1-A10 surface mount laser diode module features a 1625-nm, 1-mW laser diode in a 14-pin Dil package with single-mode fiber. The OL6205N-1-A10 is uncooled and has a fiber output power of 1 mW and is equipped with a monitor photodiode.

FEATURES

- 1625-nm MQW FP Laser
- Single-mode fiber
- Uncooled operation
- 1-mW fiber output power
- Includes photodiode for power monitoring
- 14-pin Dil package

APPLICATION

- WDM systems
- Service Channel
- Cross connect systems
- Fiber-optic light source
- Telemetry systems
- Hand held instrumentation

ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Ratings	Units
Fiber Output Power	P_o	2	mW
Laser diode reverse voltage	$V_{R(LD)}$	2	V
Photo diode reverse voltage	$V_{R(PD)}$	20	V
Photo diode forward current	$I_{F(PD)}$	10	mA
Operating Temperature	T_{opr}	-20 to +65	°C
Storage Temperature	T_{stg}	-40 to +85	°C

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

Optical and Electrical Characteristics (Ta=25°C)

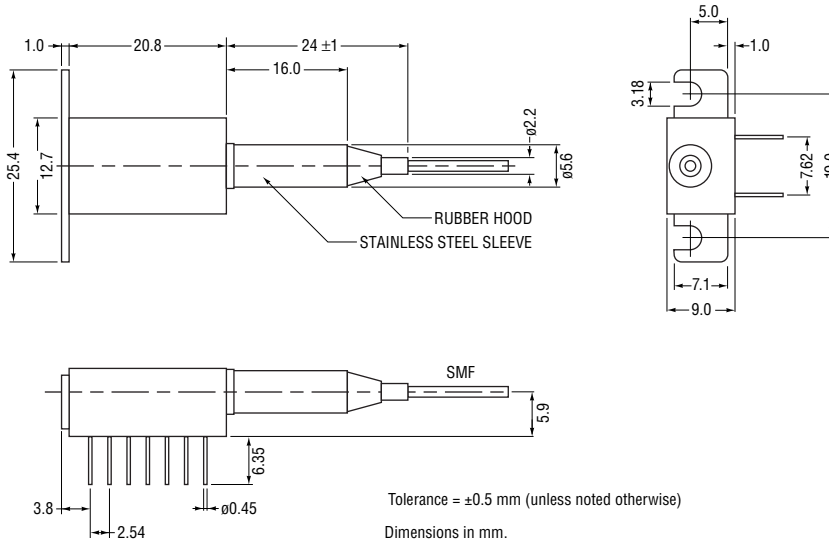
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Threshold current	I_{th}	CW	---	25	40	mA
Laser diode operating current	$I_{F(LD)}$	Pf=1 mW, CW	---	40	60	mA
Laser diode operating voltage	$V_{F(LD)}$	Pf=1 mW, CW		1.5	2.5	V
Center wavelength	λ_c	Pf=1 mW, CW	1615	1625	1635	nm
RMS Spectral width	σ	Pf=1 mW, CW, RMS	---	3	5	nm
Monitor current	I_m	Pf=1 mW, CW, $V_{R(PD)}=5$ V	50	---	---	μA
Photodiode dark current	I_{DARK}	$V_{R(PD)}=5$ V	---	---	1	μA
Photodiode capacitance	C_T	$V_{R(PD)}=5$ V, f=1 MHz	---	15	---	pF
Rise time	τ_r	$I_{BIAS}=I_{th}$ Pf=1 mW, 10-90%	---	---	1	ns
Fall time	τ_f		---	---	1	ns
Thermistor resistance	R_{th}	---	---	10	---	kΩ

Fiber Pigtail Specifications

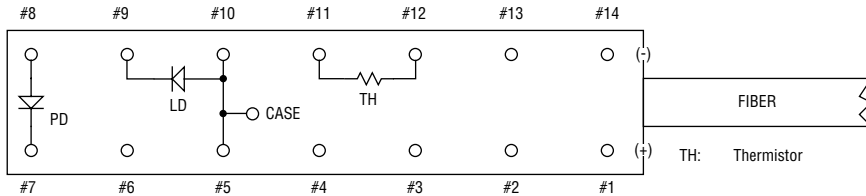
Parameter	Specifications	Units
Type	SM	---
Mode field diameter	9 +/- 1	μm
Cladding diameter	125 +/- 2	μm
Jacket diameter	900	μm
Length	1 (minimum)	m
Connector	FC/PC	-

PACKAGE DIMENSIONS

(Units: mm)



TERMINAL CONNECTION (BOTTOM VIEW - NOT TO SCALE)



Pin Configuration

Pin No.	Description	Pin No.	Description
01	NC	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	NC

Notes:

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