



# DATA SHEET

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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**



# Oki Semiconductor

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## OL6205N-1-A10 Laser Diode Module

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

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### 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)

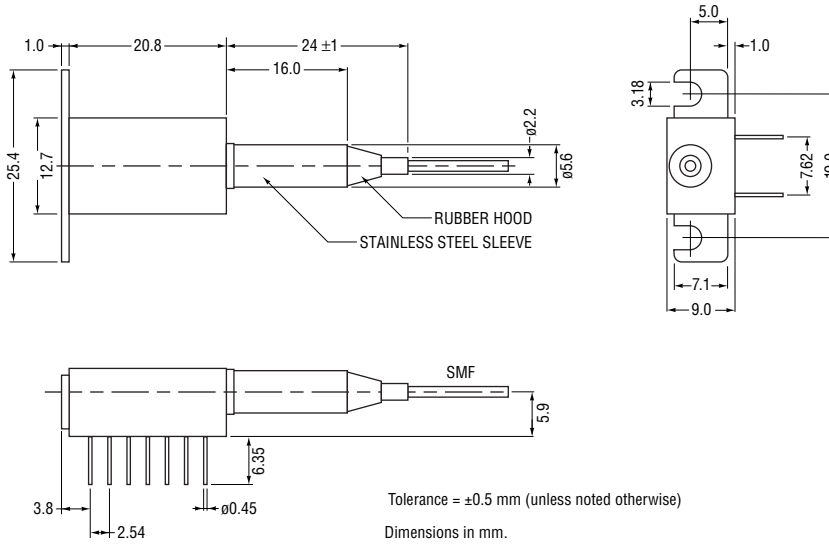
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Threshold current	$I_{th}$	CW	---	25	40	mA
Laser diode operating current	$I_{F(LD)}$	Pf=1 mW, CW	---	40	60	mA
Laser diode operating voltage	$V_{F(LD)}$	Pf=1 mW, CW		1.5	2.5	V
Center wavelength	$\lambda_c$	Pf=1 mW, CW	1615	1625	1635	nm
RMS Spectral width	$\sigma$	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	$\tau_r$	$I_{BIAS}=I_{th}$ Pf=1 mW, 10-90%	---	---	1	ns
Fall time	$\tau_f$		---	---	1	ns
Thermistor resistance	$R_{th}$	---	---	10	---	kΩ

### Fiber Pigtail Specifications

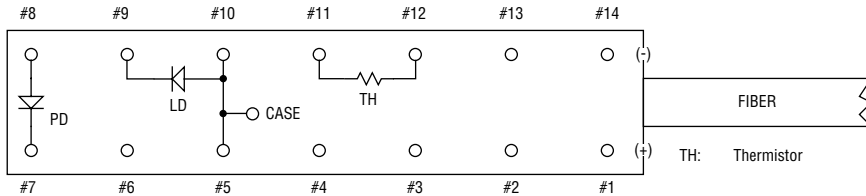
Parameter	Specifications	Units
Type	SM	---
Mode field diameter	9 +/- 1	μm
Cladding diameter	125 +/- 2	μm
Jacket diameter	900	μm
Length	1 (minimum)	m
Connector	FC/PC	-

## 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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## **Northwest Area**

785 N. Mary Avenue  
Sunnyvale, CA 94086  
Tel: 408/720-8940  
Fax: 408/720-8965

## **North Central Area**

300 Park Blvd.  
Suite 365  
Itasca, IL 60143  
Tel: 630/250-1313  
Fax: 630/250-1414

## **Northeast Area**

138 River Road  
Shattuck Office Center  
Andover, MA 01810  
Tel: 978/688-8687  
Fax: 978/688-8896

## **Southwest Area**

2302 Martin Street  
Suite 250  
Irvine, CA 92715  
Tel: 979/752-1843  
Fax: 979/752-2423

## **Southeast Area**

1590 Adamson Parkway  
Suite 220  
Morrow, GA 30260  
Tel: 770/960-9660  
Fax: 770/960-9682

### **Oki Web Site:**

*<http://www.okisemi.com>*

### **For Oki Literature:**

*Call toll free 1-800-OKI-6388  
(6 a.m. to 5 p.m. Pacific Time)*

**Oki Stock No: 320146-001**



# **Oki Semiconductor**

### **Corporate Headquarters**

785 N. Mary Avenue  
Sunnyvale, CA 94086-2909  
Tel: 408/720-1900  
Fax: 408/720-1918