DATA SHEET

OKI LASER PRODUCTS

OL5207L-5-A10
Service Channel DFB Laser Module (1510 nm, 5 mW)

November 1999

Oki Semiconductor

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Oki Semiconductor

OL5207L-5-A10 DFB Laser Module

Service Channel Laser Module for Single-Mode Fiber

INTRODUCTION

Oki Semiconductor's OL5207L-5-A10 dual in-line package service channel laser diode module features a cooled 1510-nm DFB laser module coupled to a single-mode fiber. The OL5207L-5-A10 has a built-in isolator, thermistor, and thermoelectric cooler and is equipped with a monitor photodiode.

FEATURES

- 1510-nm DFB Laser
- Single-mode fiber
- Built-in thermoelectric cooler
- 5-mW fiber output power
- Includes photodiode for power monitoring
- 14-pin Dil package

APPLICATIONS

- DWDM/WDM systems service channel
- Cross connect systems
- Service channel
- Telemetry systems
- Fiber-optic test instrumentation

ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Ratings	Units
Fiber Output Power	Pf	8	mW
Laser diode forward current	$I_{F(LD)}$	200	mA
Thermoelectric cooler voltage	V_{TEC}	3.0	V
Thermoelectric cooler current	I_{TEC}	1.5	A
Operating Temperature	Topr	-5 to +70	°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)

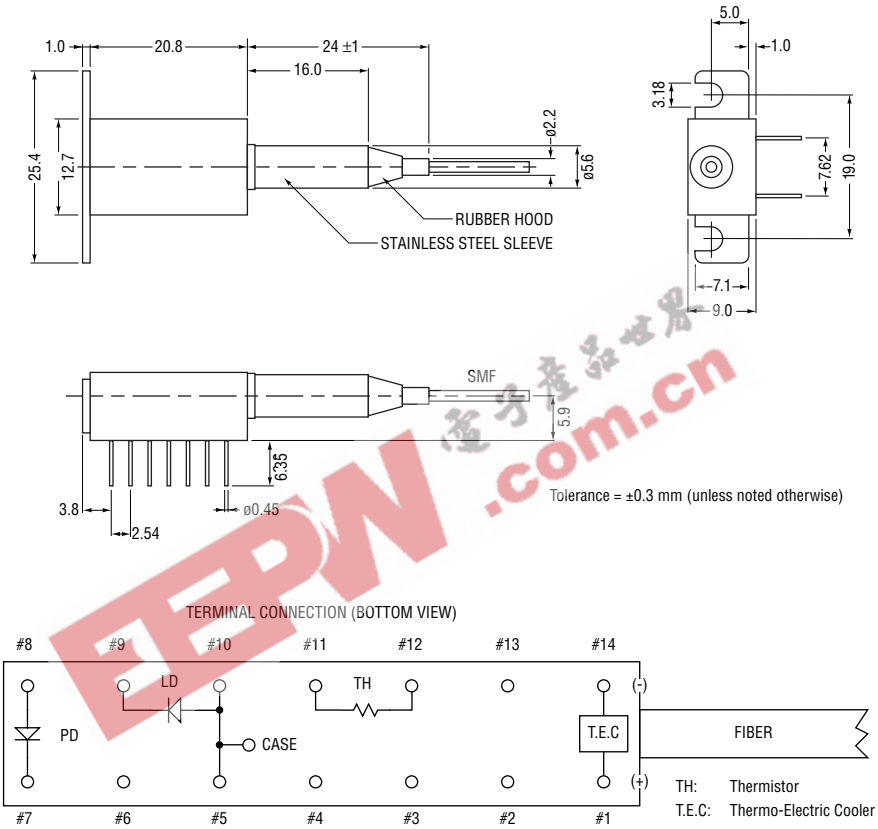
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Fiber output power	Pf	$I_{F(LD)}$=90 mA	5	-	-	mW
Threshold current	Ith	-	-	-	20	mA
Peak wavelength	λ_p	Pf= 5mW	1507	-	1513	nm
Line width	$\Delta\lambda$	Pf= 5mW, CW	-	-	30	MHz
Thermistor resistance	Rth	-	9.5	-	10.5	KΩ

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)



Pin Configuration

Pin Mo.	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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