



DATA SHEET

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

OL5300N-03 **Surface Mount Laser Diode Module** **(1550 nm, 0.3 mW)**

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Oki Semiconductor



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OL5300N-03 Laser Diode Module

Surface Mount LD Module for Single-Mode Fiber

INTRODUCTION

Oki Semiconductor's OL5300N-03 surface mount laser diode module feature a 1.5- μm , InGaAsP/InP laser diode providing 1550-nm output at 0.3 mW. These low-cost laser diodes is available in an 8-pin Mini-Dil package, has a built-in monitor photodiode, and is coupled to a single-mode fiber pigtail.

FEATURES

- InGaAsP/InP laser diode
- Fiber output: 1550-nm output at 0.3 mW
- 1.5- μm technology
- Single-mode fiber
- 8-pin Mini-Dil package
- Includes a photodiode for power monitoring

APPLICATION

- Optical transmission systems
- Digital video systems
- LAN systems
- Optical measurement / OTDRs

ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Ratings	Units
Fiber Output Power	Pf	2	mW
Laser diode reverse voltage	$V_{R(LD)}$	2	V
Photo diode forward current	$I_{F(PD)}$	10	mA
Photo diode forward voltage	$V_{F(PD)}$	15	V
Operating Temperature (Ta)	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +85	°C
Lead Soldering Temperature (10 sec)	Tsol	260	°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	CW	0.3	-	-	mW
Threshold current	Ith	-	-	-	40	mA
Laser diode forward voltage	$V_{OP(LD)}$	Pf=0.3 mW	---	---	1.5	V
Center wavelength	λ_c	Pf=0.3 mW, RMS Ta=40 to 65°C	1430	1550	1570	nm
RMS Spectral width	σ	Pf=1 mW, RMS (σ)			5	nm
Tracking error	TER	Im=constant@ Pf=0.3 mW (25°C)			1.5	dB
Rise and fall time		10 to 90 %			0.5	ns
Monitor current	Im	Pf=0.3 mW	100		600	uA

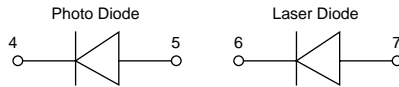
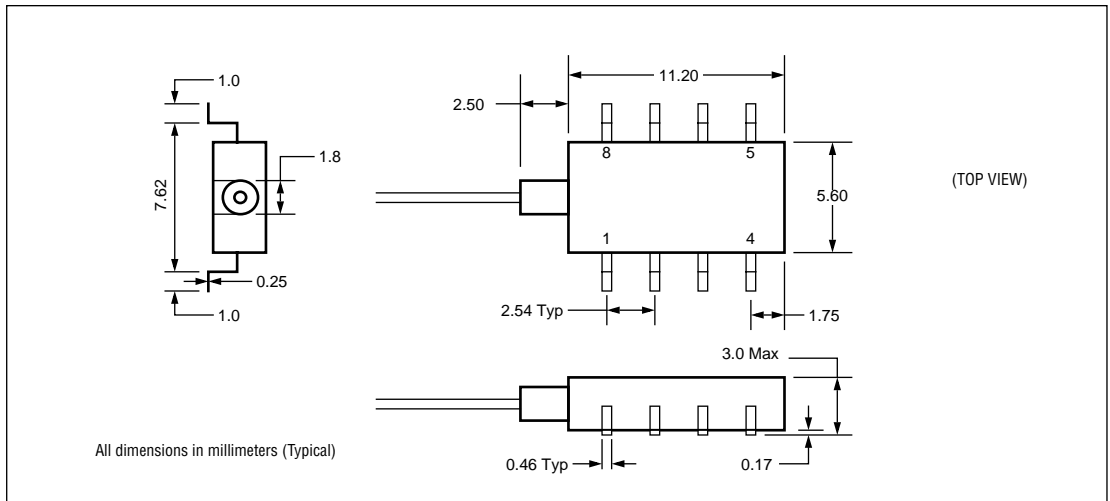
Fiber Pigtail Specifications

Parameter	Specifications	Units
Type	SM	---
Mode Field Diameter	10 +/-1	μm
Cladding Diameter	125 +/-2	μm
Jacket Diameter	900	μm
Length	1.0 (Minimum)	m
Connector	FC	---

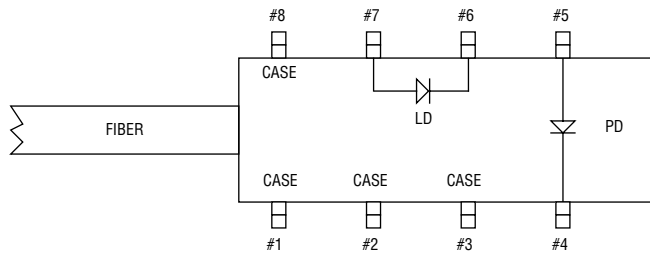
Connector and Fiber Specifications

Connector	FC-PC, SC-PC, MUJ-PC etc	
Fiber	1.31- μm single-mode fiber Diameter: 0.9 mm Color: Dark blue	Bending Radius: 20 mm (minimum) Heat resistant Length: Options (contact Oki Semiconductor)

PACKAGE DIMENSIONS (UNITS: MM)



LEAD CONNECTIONS (TOP VIEW)



Pin Configuration

Pin No.	Description	Pin No.	Description
01	Case Ground	05	PD Anode
02	Case Ground	06	LD Cathode
03	Case Ground	07	LD Anode
04	PD Cathode	08	Case Ground

Notes

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