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OL3300N-05 and OL3301N-05 Surface Mount Laser Diode Modules (1310 nm, 0.5 mW)

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Oki Semiconductor OL3300N-05 and OL3301N-05 LD Modules

Surface Mount LD Modules for Single-Mode Fiber

INTRODUCTION

Oki Semiconductor's OL3300N-05/OL3301N-05 family of surface mount laser diode modules feature a $1.3-\mu m$, InGaAsP/InP laser diode providing 1310-nm output at 0.5 mW. These low-cost laser diodes are available in 8-pin Mini-Dil packages, have a built-in monitor photodiode, and are coupled to single-mode fiber pigtails.

FEATURES

- InGaAsP/InP laser diode
- Fiber output: 1310-nm output at 0.5 mW
- 1.3-µm technology
- Single-mode fiber
- 8-pin Mini-Dil package
- Includes a photodiode for power monitoring

APPLICATION

- Optical transmission systems
- OL3301N-05: OC-48, 2.488 Gbps
- OL3300N-05: 622 Mbps
- Gigabit Ethernet
- 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 reverse voltage	V _{R(PD)}	15	V
Operating Temperature	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)

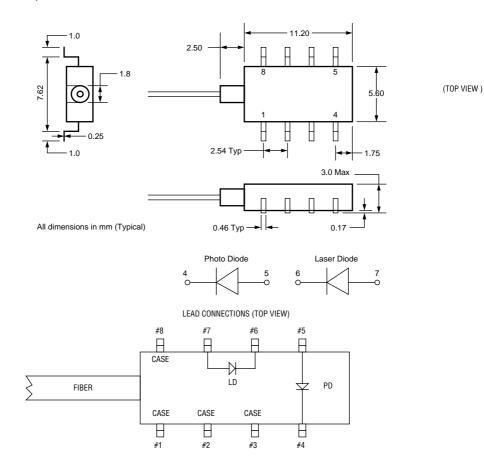
Parameter	Symbol	Test Conditions	Min.	Тур.	Max.	Units
Fiber output power	Pf	CW	0.5	-	-	mW
Threshold current	lth	-	-	-	40	mA
Laser diode operating current	I _{OP(LD)}					mA
Laser diode forward voltage	V _{OP(LD)}	Pf =0.5 mW			1.5	V
Center wavelength	λς	Pf =0.5 mW, RMS Ta=0 to 85°C	1270	-	1360	nm
RMS Spectral width	σ	Pf =0.5 mW, RMS (σ)			7.7	nm
Tracking error	TER	Im=constant@ Pf =0.5 mW (25°C)			1.5	dB
Rise and fall time (OL3300N-05)		10 to 90 %			0.5	ns
Rise and fall time (OL3301N-05)					0.15	ns
Monitor current	Im	Pf =0.5 mW	300		1000	μA

Fiber Pigtail Specifications

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

PACKAGE DIMENSIONS

(Units: mm)



Pin Configuration

Pin Mo.	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

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Notes

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