

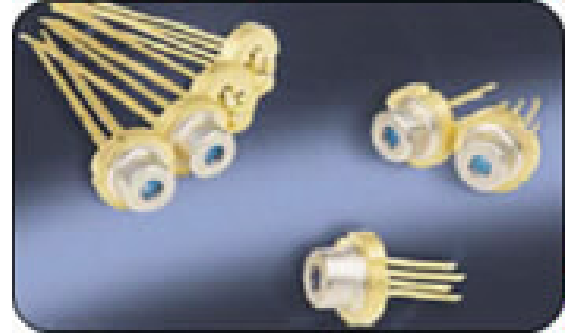
3.125 Gbit 1300 nm CWDM DFB Laser Diode

Part No. DTLD101-L00/L01/L02/L03

The DTLD-101-Lxx is a 3.125 Gbit MQW DFB laser diode in a T056 package with a flat window cap. This product is designed for 4 x 3.125 CWDM applications in the 1300nm window.

FEATURES:

- Chip fabricated in InGaAlAs material system.
- High reliability ridge wave guide structure.
- 3.125Gbps operation up to 85 °C.
- >30 dB side mode suppression up to 85 °C.
- Meets requirement of IEEE 802.3 standard for 4 x 3.125 Gbit.



Optical and Electrical Characteristics

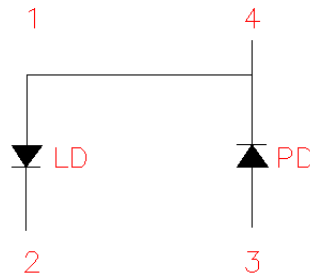
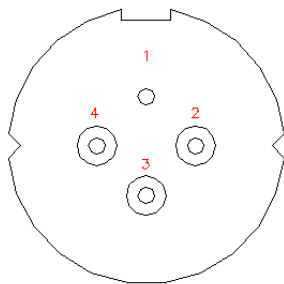
	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS (T _{op} = 25 °C)
Optical Output Power	P _o	5			mW	CW
Threshold Current	I _{th}		13	16	mA	CW
Slope Efficiency	SE	0.25	0.4		mW/mA	CW, T _{op} = 85 °C
Operating Current	I _{op}			40	mA	P _o = 5 mW, CW
				70	mA	P _o = 5 mW, CW, T _{op} = 85 °C
Forward Voltage	V _f		1.3	1.6	V	P _o = 5 mW, CW
Wavelength of Laser L0	λ _{L0}	1269.0		1282.4	nm	I=20-75 mA, T _{op} = 0-85 °C
Wavelength of Laser L1	λ _{L1}	1293.5		1306.9	nm	I=20-75 mA, T _{op} = 0-85 °C
Wavelength of Laser L2	λ _{L2}	1318.0		1331.4	nm	I=20-75 mA, T _{op} = 0-85 °C
Wavelength of Laser L3	λ _{L3}	1342.5		1355.9	nm	I=20-75 mA, T _{op} = 0-85 °C
Side Mode Suppression Ratio	SMSR	30			dB	P _o = 5 mW, CW, T _c = 0-85 °C
Beam Divergence	θ		15		degree	P _o = 5 mW, CW, 1/e ² power
Beam Divergence	θ _⊥		40		degree	P _o = 5 mW, CW, 1/e ² power
Rise Time	t _r			100	ps	P _o = 5 mW, 20%-80%
Fall Time	t _f			100	ps	P _o = 5 mW, 20%-80%
PD Monitor Current	I _m	50	200		μA	P _o = 5 mW, CW
PD Dark Current	I _{dark}			0.1	μA	V _r = 5 V
PD Capacitance	C _m		8	20	pF	V _r = 5 V, f = 1 MHz

Absolute Maximum Ratings

PARAMETER	SYMBOL	UNIT	RATING
Optical Output Power (CW)	P_o	mW	10
LD Reverse Voltage	V_r	V	2
PD Reverse Voltage	V_f	V	15
PD Forward Current	I_f	mA	1.0
Operating Temperature	T_{opr}	°C	0 to +85
Storage Temperature	T_{stg}	°C	-40 to +100

Pinout Details

Rear view



1 = Case (isolated)
 2 = Laser diode cathode
 3 = Photodiode anode
 4 = Photodiode cathode
 Laser diode anode