1490 nm DFB LASER DIODE MODULE DL-5300-1490 Series

UNCOOLED MQW DFB LD WITH PIGTAIL

FEATURES

- 1490 nm Uncooled Laser Diode with MQW Structure
- High Reliability, Long Operation Life
- Single Frequency Operation with High SMSR
- 0 to 70°C operation without active cooling
- Build-in InGaAs monitor

APPLICATION

Trunk Line, OTDR

DESCRIPTION

DL-5300-1490 series are designed for coupling a single mode optical fiber with 1490 nm MQW DFB uncooled laser diode. These modules are ideally suitable for long reach and intermediate reach OC-3, OC-12, and Gigabit Ethernet transmission application.

ELECTRICAL AND OPTICAL CHARACTERISTICS (T_C=25 °C)

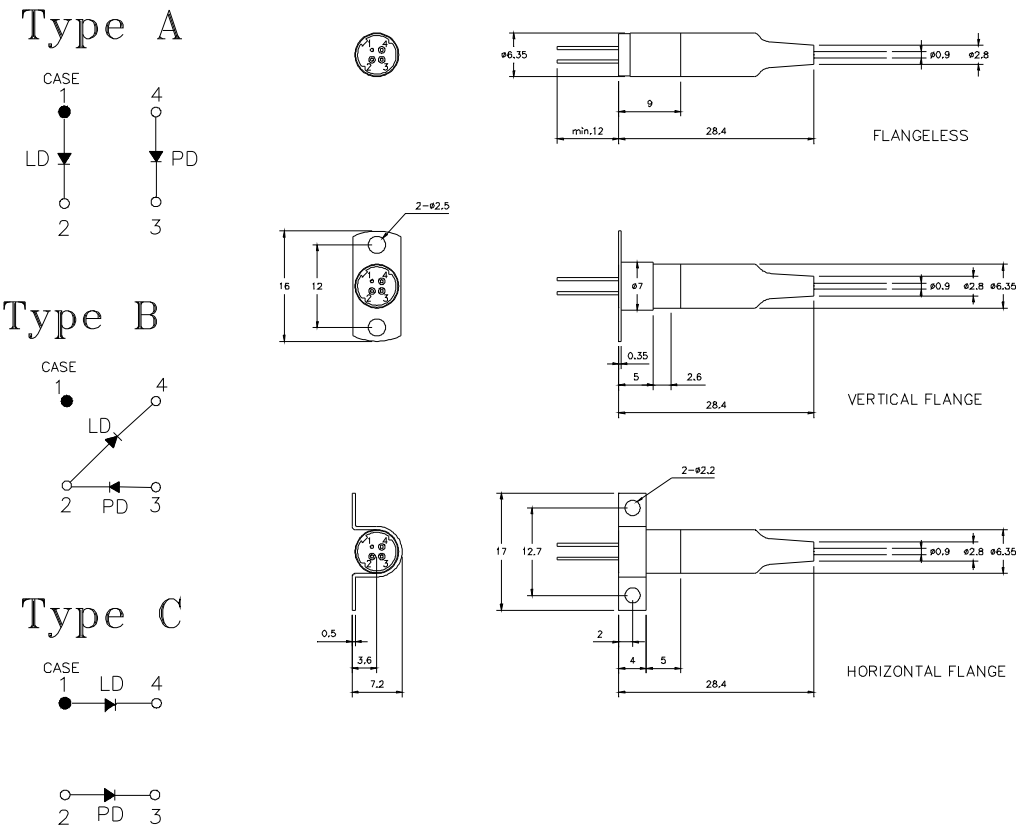
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{th}	Threshold Current	CW		10	15	mA
V_{OP}	Operating Voltage	CW, I_F= I_{th}+20mA		1.2	1.5	V
P_f	Optical Output Power Part No: DL-532X-1490 DL-533X-1490	CW, I_F= I_{th}+20mA	 1.0 2.0			mW
λ c	Center Wavelength	CW, Po= P_f	1483	1490	1495	nm
SMSR	Side Mode Suppression Ratio	CW, I_{th}+20mA	30	35		dB
t_r, t_f	Rise And Fall Times	I_F=I_{th}, I_{th}+20mA , 20~ 80%			0.226	ns
$\Delta P_f / P_f$	Tracking Error	APC, 0~+70 °C	-	-	±1.5	dB
I_m	PD Monitor Current	CW, I_{th}+20mA , V_{RD}=1V	100		1500	μA
I_D	PD Dark Current	V_{RD}=5V			0.1	μA
C_t	PD Capacitance	V_{RD}=5V, f=1MHz		10	15	pF

ABSOLUTE MAXIMUM RATINGS (T_C=25 °C)

Symbol	Parameter	Ratings	Unit
Po	Optical Output Power (532X/533X)	1.5/3	mW
V_{RL}	LD Reverse Voltage	2	V
V_{RD}	PD Reverse Voltage	10	V
I_{FD}	PD Forward Current	1.0	mA
T_{opr}	Operating Temperature	0 to 70	°C
T_{stg}	Storage Temperature	-40~+85	°C

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MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



Note: Specifications subject to change without notice.

ORDER INFORMATION

Part No.: D L - 5 3 □ □ □ - 1 4 9 0 - □ □ □ □

Code	Pout (mw)
2	1
3	2

Code	Pin Assignment
0	Type A
5	Type B
8	Type C

Code	Speed
Blank	1.25 Gbps
S	2.5 Gbps

Code	Flange
V	Vertical
H	Horizontal
X	No Flange

Code	Connector
S	SC/PC
F	FC/PC
T	ST/PC
X	No connector
SA	SC/APC
FA	FC/APC
TA	ST/APC

Code	Isolator
Blank	No
S	Single-Stage

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