1310 nm DFB LASER DIODE MODULES DL-3500 SERIES

UNCOOLED MQW DFB LD WITH RECEPTACLE

FEATURES

- ✧ 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, FitL

DESCRIPTION

DL-3500 series are designed for coupling a single mode optical fiber with 1310 nm MQW DFB uncooled laser diode. DL-3500 series are the best kits as light sources for telecom and datacom applications.

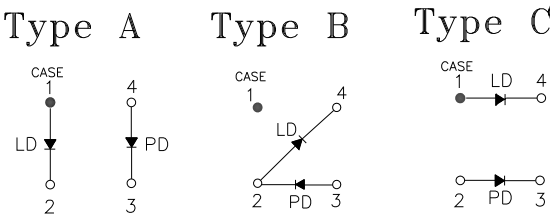
ELECTRICAL AND OPTICAL CHARACTERISTICS (T_C=25 °C)

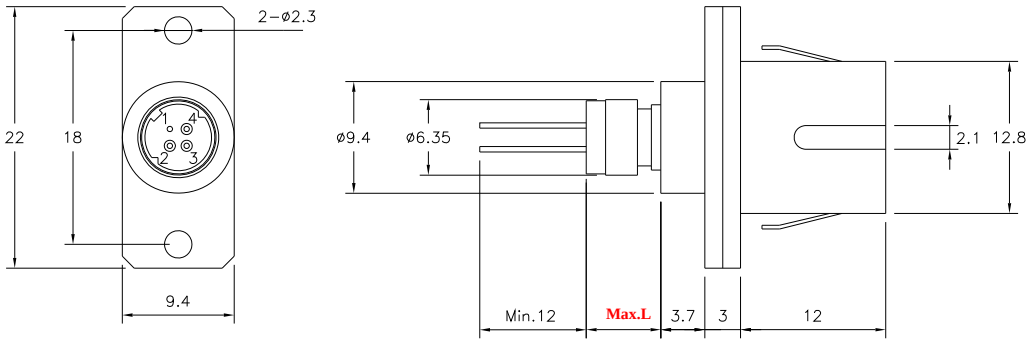
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{th}	Threshold Current	CW		10	15	mA
V_{OP}	Operating Voltage	CW, I_F=Ith+20mA		1.2	1.5	V
P_f	Optical Output Power	CW, I_F=Ith+20mA				
	Part No:DL-350XX		0.2		0.5	mW
	DL-351XX		0.5		1.0	
	DL-352XX		1.0		2.0	
	DL-353XX		2.0		3.0	
	DL-354XX		3.0		-	
λc	Center Wavelength	CW, I_{th}+20mA	1290	1310	1330	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%				
	Part No:DL-35XX				226	ps
	DL-35XXS				150	
$\Delta P_f / P_f$	Tracking Error	APC, 0~+70 ºC	-1.5		1.5	dB
I_m	PD Monitor Current	CW, Po= P_f ,V_{RD}=1V	100			μA
I_D	PD Dark Current	V_{RD}=5V			0.1	μA
C_t	PD Capacitance	V_{RD}=5V, f=1MHz		10	15	pF

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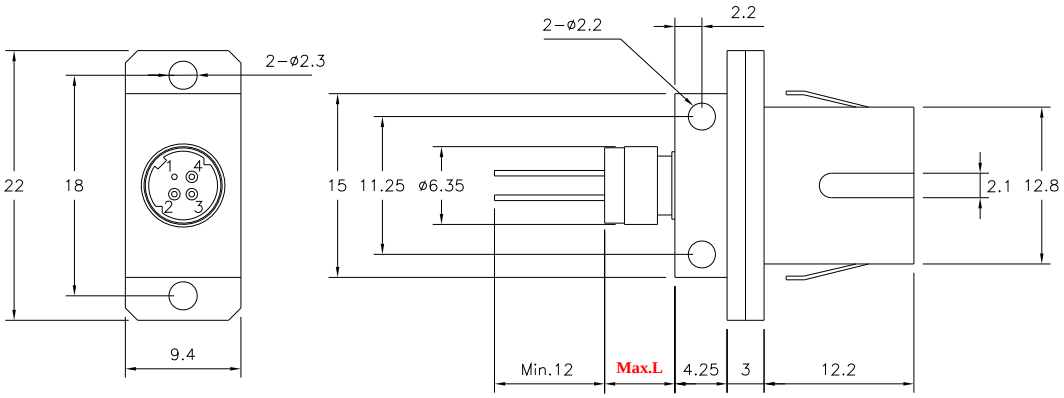
ABSOLUTE MAXIMUM RATINGS (T_C=25 ºC)			
Symbol	**Parameter**	**Ratings**	**Unit**
P_O	Optical Output Power (350XX/351XX/352XX/353XX/354XX)	0.5/1.0/1.5/3/4	mW
V_{RL}	LD Reverse Voltage	2	V
V_{RD}	PD Reverse Voltage	10	V
I_{FD}	PD Forward Current	1.0	mA
T_{opr}	Operating Temperature	0 to 70	ºC
T_{stg}	Storage Temperature	-40~+85	ºC

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT

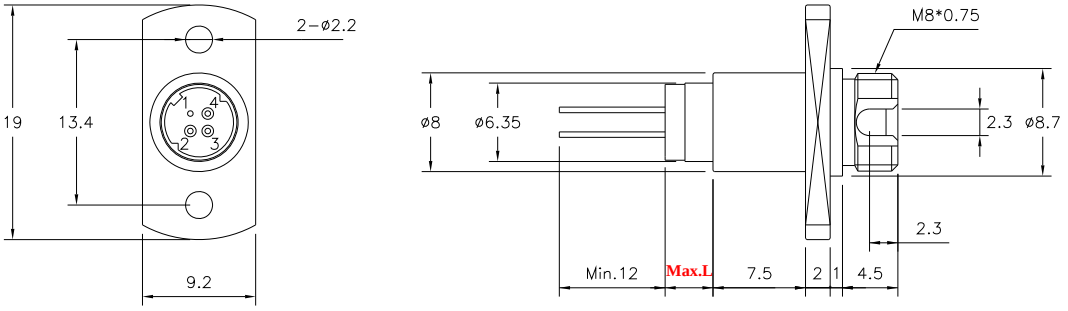




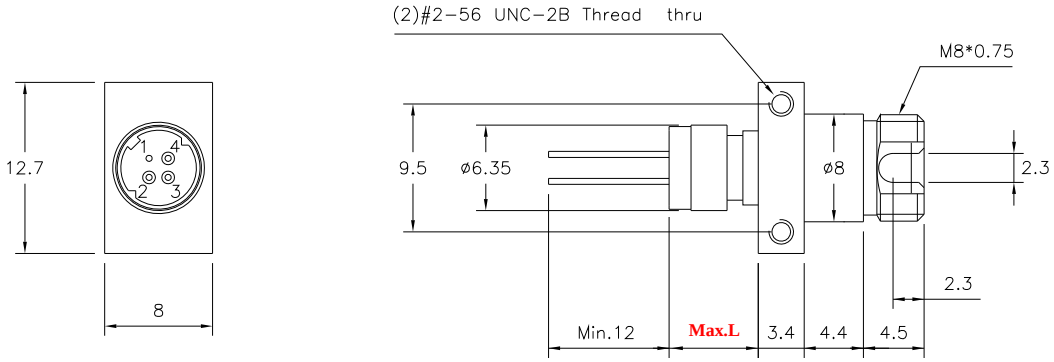
SC RECEPTACLE
(DL-35XXX-SX)



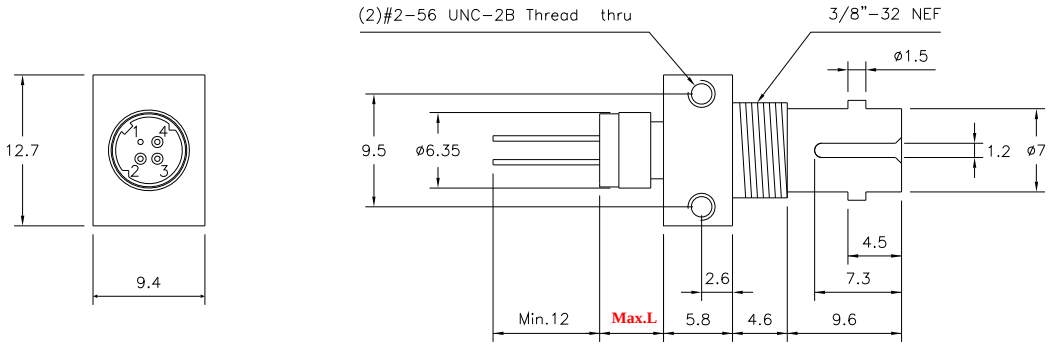
SC RECEPTACLE (BOARD MOUNT)
(DL-35XXX-SBX)



FC RECEPTACLE
(DL-35XXX-FX)



FC RECEPTACLE (BOARD MOUNT)
(DL-35XXX-FBX)



ST RECEPTACLE
(DL-35XXX-TX)

P//N	Max. L Dimension				
	S	SB	F	FB	T
350XX-X 351XX-X 352XX-X	3.6	3	1.2	3.9	2.7
350XX-XS 351XX-XS 352XX-XS	7	6.4	4.6	7.3	6.1
353XX-XS	8.6	8.0	6.2	8.9	7.7
354XX-XS	10.6	10.0	8.2	10.9	9.7

Note: Specifications subject to change without notice.

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ORDER INFORMATION

Part No.: D L – 3 5 □ □ □ – □ □

Code	Pout (mW)
0	0.2
1	0.5
2	1

Code	Speed
Blank	1.25 Gbps
S	2.5 Gbps

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

Code	Isolator
Blank	No
S	Single-Stage

Code	Connector Type
S	SC/PC
SB	SC/PC (Board Mount)
F	FC/PC
FB	FC/PC (Board Mount)
T	ST/PC

Part No.: D L – 3 5 □ □ □ – □ S

Code	Pout (mW)
3	2
4	3

Code	Speed
Blank	1.25 Gbps
S	2.5 Gbps

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

Code	Isolator
S	Single-Stage

Code	Connector Type
S	SC/PC
SB	SC/PC (Board Mount)
F	FC/PC
FB	FC/PC (Board Mount)
T	ST/PC

Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2003/1/1
2.0	1. Combine 1.25G and 2.5G characteristics in one data sheet 2. Add 3mW products 3. Revise FC RECEPTACLE (BOARD MOUNT) thread thru dim.: M2 => UNC-2B 4. Revise drawing	2007/12/1
3.0	Revise order information	2009/4/15