

1550 nm DFB LASER DIODE MODULES

UNCOOLED MQW DFB LD WITH RECEPTACLE

FEATURES

- 2 Uncooled Laser Diode with MQW Structure
- 2 $P_f \geq 3\text{mW}$ @ $I_{th}+20\text{ mA}$
- 2 High Reliability, Long Operation Life
- 2 Single Frequency Operation with High SMSR
- 2 0 to 70°C operation without active cooling
- 2 Build-in InGaAs monitor

APPLICATION

Trunk Line, FitL

DESCRIPTION

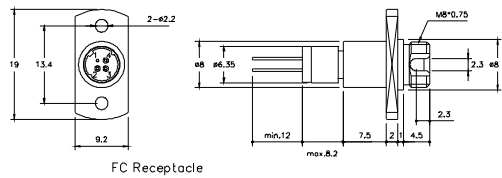
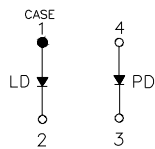
DL-5500 series are designed for coupling a single mode optical fiber with 1550 nm MQW DFB uncooled laser diode. DL-5500 series are the best kits as light sources for telecom and datacom applications.

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 =I _{th} +20mA		1.2	1.5	V
P _f	Optical Output Power	CW, I _F =I _{th} +20mA	3.0		-	mW
λ _c	Center Wavelength	CW, I _{th} +20mA	1530	1550	1570	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, 10~90%			0.3	ns
ΔP _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			μA
I _D	PD Dark Current	V _{RD} =5V			0.1	μA
C _t	PD Capacitance	V _{RD} =5V, f=1MHz		10	15	pF

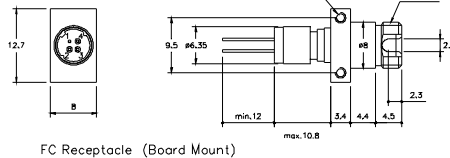
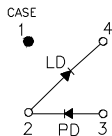
ABSOLUTE MAXIMUM RATINGS (T _C =25 °C)			
Symbol	Parameter	Ratings	Unit
P _o	Optical Output Power	4	mW
V _{RL}	LD Reverse Voltage	2	V
V _{RD}	PD Reverse Voltage	10	V
I _{FD}	PD Forward Current	1.0	mA
T _{opr}	Operating Temperature	0 to 70	°C
T _{stg}	Storage Temperature	-40~+85	°C

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT

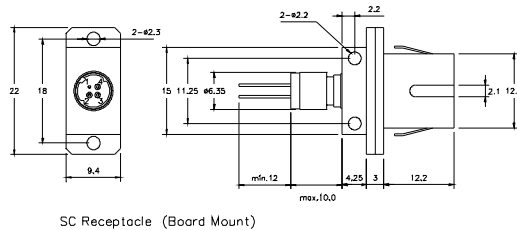
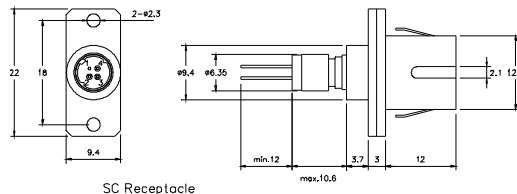
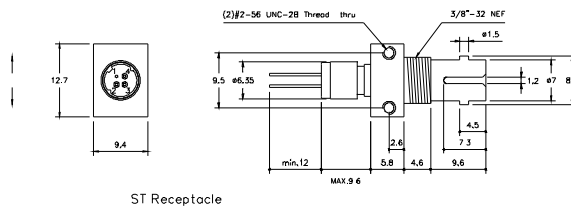
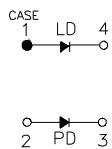
Type A



Type B



Type C



Note: Specifications subject to change without notice.

ORDER INFORMATION

Part No.: D L - 5 5 4 ☐ ☐ - ☐ ☐

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

Code	Speed
Blank	1.25 Gbps
S	2.5 Gbps

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

Code	Isolator
Blank	No
S	Single-Stage