

1490 nm DFB LASER DIODE MODULES
UNCOOLED MQW DFB LD WITH RECEPTACLE

DL-5500-1490 Series

FEATURES

- 2 1490 nm Uncooled Laser Diode with MQW Structure
- 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-5500-1490 series are designed for coupling a single mode optical fiber with 1490 nm MQW DFB uncooled laser diode. DL-5500-1490 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 Part No:DL-552X-1490 DL-553X-1490	CW, I _F =I _{th} +20mA	1.0 2.0	- -	- -	mW
λ _c	Center Wavelength	CW, I _{th} +20mA	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
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 (552X/553X)	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

