

**1550 nm LASER DIODE MODULES**  
UNCOOLED MQW-FP LD WITH PIGTAIL

**FL-5300 SERIES**

**FEATURES**

- 2 1550 nm typical emission wavelength
- 2 High reliability, long operation life
- 2 High temperature operation without active cooling
- 2 Build-in InGaAs monitor

**APPLICATION**

Trunk Line, FitL

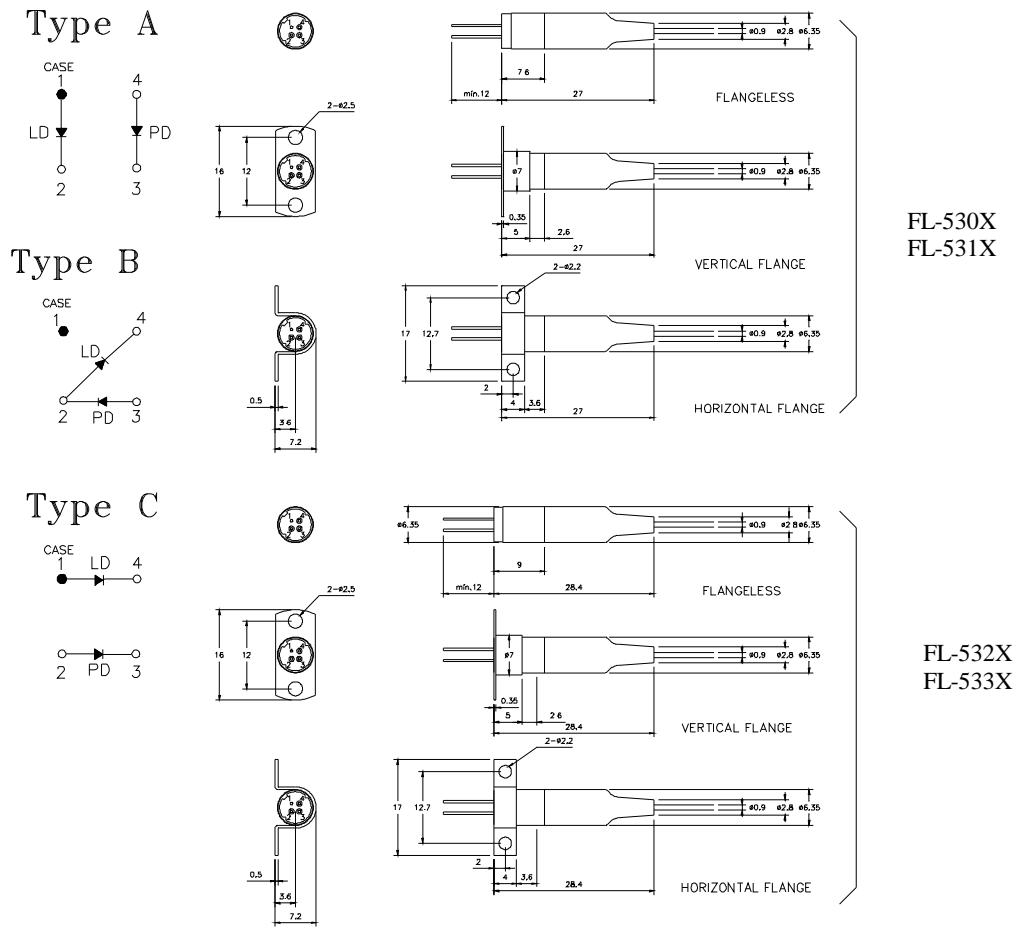
**DESCRIPTION**

FL-5300 series are designed for coupling a single mode optical fiber with 1550 nm MQW-FP uncooled laser diode. FL-5300 series are the best kits as light sources for telecom and datacom applications.

<b>ELECTRICAL AND OPTICAL CHARACTERISTICS (T<sub>C</sub>=25 °C)</b>						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I <sub>th</sub>	Threshold Current	CW		12	15	mA
V <sub>OP</sub>	Operating Voltage	CW, I <sub>F</sub> = I <sub>th</sub> +20mA		1.2	1.5	V
P <sub>f</sub>	Optical Output Power Part No:FL-530X FL-531X FL-532X FL-533X	CW, I <sub>F</sub> = I <sub>th</sub> +20mA	0.2 0.5 1.0 2.0	- - - -	- - - -	mW
λ <sub>c</sub>	Center Wavelength	CW, I <sub>th</sub> +20mA	1520	1550	1580	nm
Δ λ	Spectral Width	CW, I <sub>th</sub> +20mA, RMS (σ)			3	nm
t <sub>r</sub> , t <sub>f</sub>	Rise And Fall Times	I <sub>F</sub> =I <sub>th</sub> , I <sub>th</sub> +20mA, 10~ 90%			0.3	ns
Δ P <sub>f</sub> / P <sub>f</sub>	Tracking Error	APC, -40~+85 °C	-	-	±1.0	dB
I <sub>m</sub>	PD Monitor Current	CW, I <sub>th</sub> +20mA, V <sub>RD</sub> =1V	100			μ A
I <sub>D</sub>	PD Dark Current	V <sub>RD</sub> =5V			0.1	μ A
C <sub>t</sub>	PD Capacitance	V <sub>RD</sub> =5V, f=1MHz		10	15	pF

<b>ABSOLUTE MAXIMUM RATINGS (T<sub>C</sub>=25 °C)</b>			
Symbol	Parameter	Ratings	Unit
P <sub>o</sub>	Optical Output Power (530X/531X/532X/533X)	0.5/1.0/1.5/3	mW
V <sub>RL</sub>	LD Reverse Voltage	2	V
V <sub>RD</sub>	PD Reverse Voltage	10	V
I <sub>FD</sub>	PD Forward Current	1.0	mA
T <sub>opr</sub>	Operating Temperature	-40~+85	°C
T <sub>stg</sub>	Storage Temperature	-40~+85	°C

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



**Note:** Specifications subject to change without notice.

## ORDER INFORMATION

Part No.: F L - 5 3    -

Code	Pout (mw)
0	0.2
1	0.5
2	1
3	2

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

Code	Flange
V	Vertical
H	Horizontal
X	No Flange

Code	Speed
Blank	1.25 Gbps
S	2.5 Gbps

Code	Isolator
Blank	No
S	Single-Stage

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