

Features



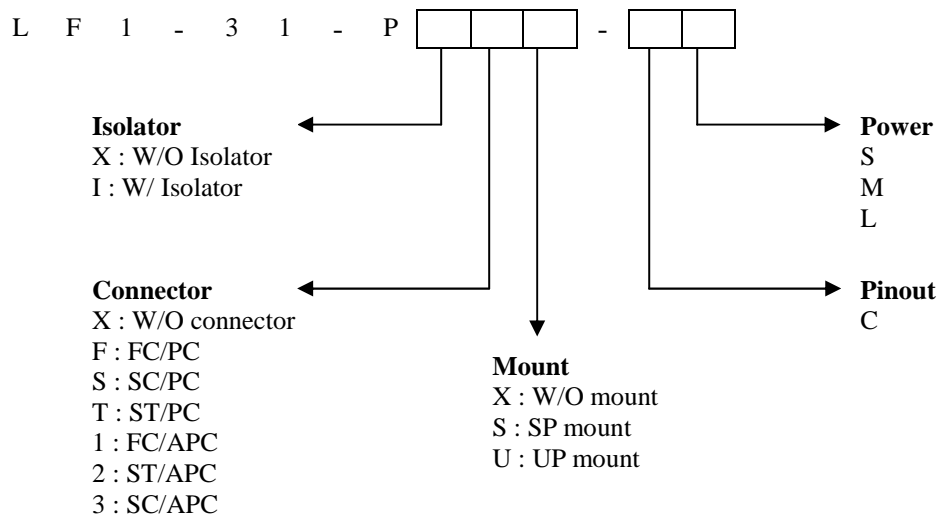
- InGaAsP MQW-FP laser diode (LD)
- Built-in InGaAs monitor PIN photodiode (PD)
- Uncooled, hermetically sealed
- Low threshold current
- Fiber pigtail type with optional FC/SC/ST connector

Applications

- Gigabit Ethernet

Ordering Information

Part Number	Connector	Mount	Pin-out	Power
LF1-31-PXFX-CS	FC/PC	W/O	C	S
LF1-31-PXFX-CM	FC/PC	W/O	C	M
LF1-31-PXFX-CL	FC/PC	W/O	C	L





1310nm 1.25Gbps FP Laser Diode Pigtail type Module

Specifications

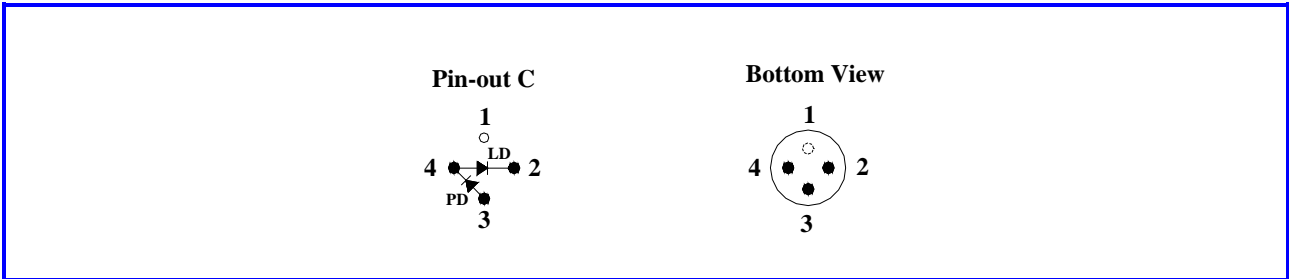
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Storage temperature	T_{stg}	-40~+85	°C
Operating case temperature	T_{op}	-40~+85	°C
Peak optical output power	S	0.8	mW
	M	1.5	
	L	2.5	
Reverse voltage (LD)	V_{RL}	2	V
Forward current (PD)	I_{FP}	2	mA
Reverse voltage (PD)	V_{RP}	20	V
Soldering temperature (10 sec.)	S_{temp}	260	°C

Electrical and Optical Characteristics (T=25°C, unless otherwise specified)

Parameter	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Threshold current	I_{th}	CW		5	20	mA
Center Wavelength	λ_c	P_f	1280		1340	nm
Fiber output power	S		0.25		0.5	mW
	M	$CW, I_{th} + 25mA$	0.5		1.0	
	L		1.0		2.0	
Slope efficiency	S		0.01		0.02	mW/mA
	M	CW	0.02		0.04	
	L		0.04		0.08	
Operating voltage	V_{op}	P_f			1.7	V
Spectral width	$\Delta \lambda$	CW, RMS		1.0	2.5	nm
Rise time	T_r	$I_b = I_{th}, 10\% \sim 90\%$			0.7	nsec
Fall time	T_f	$I_b = I_{th}, 90\% \sim 10\%$			0.7	nsec
Tracking error	$\Delta P_f / P_f$	APC, 0°C ~ +70°C		±1.0		dB
Tracking error	$\Delta P_f / P_f$	APC, -40°C ~ +85°C		±1.5		dB
Monitor current	I_m	$P_f, V_{RP} = 10V$	50			μA
Monitor dark current	I_d	$V_{RP} = 10V$			0.1	μA
Monitor capacitance	C	$V_{RP} = 10V, f = 1MHz$			20	pF

Pin Assignment



Package Outline Drawing

