

Features



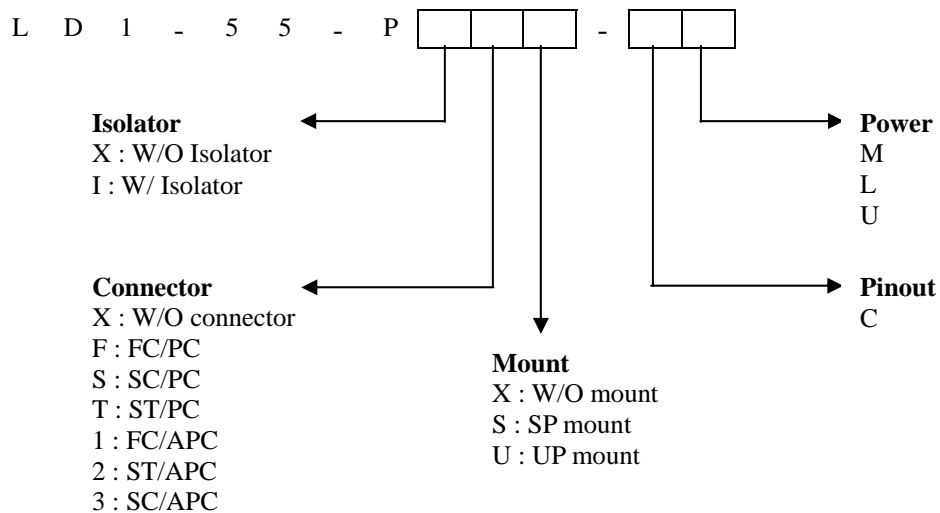
- InGaAsP MQW-DFB laser diode (LD)
- Built-in InGaAs monitor PIN photodiode (PD)
- Uncooled, hermetically sealed
- Low threshold current
- Fiber pigtail type with optional FC/SC/ST connector

Applications

- Gigabit Ethernet

Ordering Information

Part Number	Connector	Mount	Pin-out	Power
LD1-55-PXFX-CM	FC/PC	W/O	C	M
LD1-55-PXFX-CL	FC/PC	W/O	C	L
LD1-55-PXFX-CU	FC/PC	W/O	C	U





1550nm 1.25Gbps DFB Laser Diode Pigtail type Module

Specifications

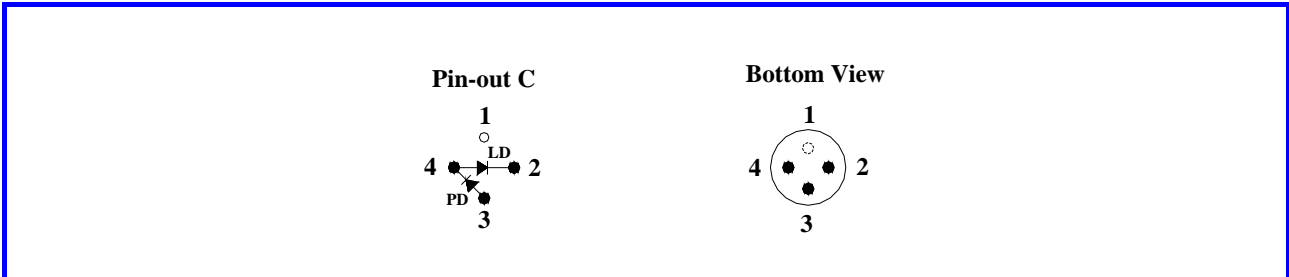
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Storage temperature	T_{stg}	-40~+85	°C
Operating case temperature	T_{op}	0~+70	°C
Peak optical output power	M	1.5	mW
	L	3.0	
	U	4.0	
Reverse voltage (LD)	V_{RL}	2	V
Forward current (PD)	I_{FP}	2	mA
Reverse voltage (PD)	V_{RP}	15	V
Soldering temperature (10 sec.)	S_{temp}	260	°C

Electrical and Optical Characteristics ($T_C=25^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Threshold current	I_{th}	CW		10	20	mA
Center Wavelength	λ_c	P_f	1530		1570	nm
Fiber output power	M		0.5		1.0	mW
	L	$CW, I_{th}+25\text{mA}$	1.0		1.75	
	U		1.75			
Slope efficiency	M		0.02		0.04	mW/mA
	L	CW	0.04		0.07	
	U		0.07			
Operating voltage	V_{op}	P_f			1.7	V
Side mode suppression ratio	SMSR	CW, $0^\circ\text{C} \sim +70^\circ\text{C}$	30			dB
Rise time	T_r	$I_b = I_{th}, 20\% \sim 80\%$			0.35	nsec
Fall time	T_f	$I_b = I_{th}, 80\% \sim 20\%$			0.35	nsec
Tracking error	$\Delta P_f / P_f$	APC, $0^\circ\text{C} \sim +70^\circ\text{C}$		± 1.0		dB
Monitor current	I_m	$P_f, V_{RP} = 1\text{V}$	50			μA
Monitor dark current	I_d	$V_{RP} = 5\text{V}$			0.1	μA
Monitor capacitance	C	$V_{RP} = 5\text{V}, f = 1\text{MHz}$			20	pF

Pin Assignment



Package Outline Drawing

