

# ML1030 series

1310 nm FP coaxial laser diode module for digital applications

## Overview

The ML1030 series is comprised of 1310 nm FP coaxial laser diode modules for digital applications. The lasers have a low threshold current and a narrow spectral linewidth. The ML1030 series is available with optical isolators, various connectors and different flange options. Please check the section on ordering information for details on the different options.



## Applications

### Communications

- High speed optical fiber communication
- Short and intermediate reach
- SONET OC-48 systems
- SDH STM-16 systems

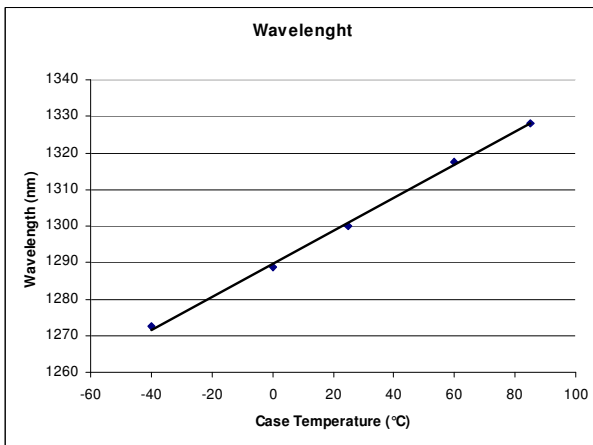
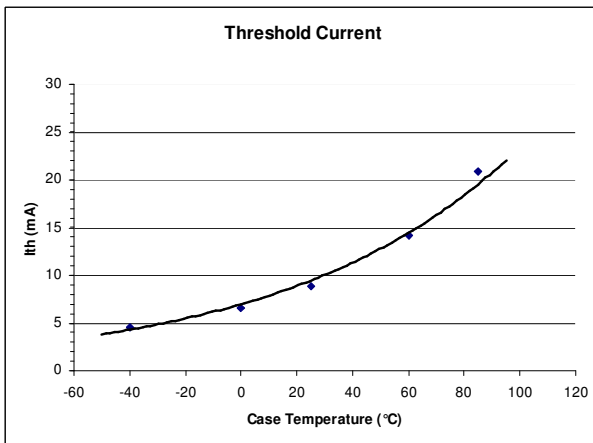
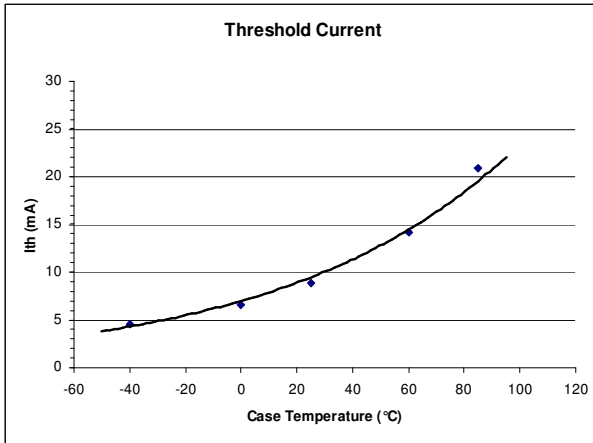
## Electro-optical Characteristics

Parameter	Symbol	Min	Typical value	Max	Unit	Test condition
Threshold Current	$I_{TH}$	-	11	18	mA	25°C
Operating Current	$I_{OP}$	-	35	45	mA	25°C, $P_f=3mW$
		-	50	70	MA	85°C, $P_f=3mW$
Optical Output	$P_f$	-	2	3	mW	25°C, $I_{OP}=I_{TH} + 26mA$
Operating Voltage	$V_{OP}$	-	1.2	1.5	V	25°C, $I_{OP}=I_{TH} + 26mA$
Slope Efficiency	$\eta$	0.08	0.12	-	W/A	25°C
Peak Wavelength	$\lambda$	1270	1310	1340	nm	0°C-85°C, $P_f=3mW$
Spectral Width	$\Delta\lambda$	-	0.85	2	nm	25°C, $P_f=3mW$
Temperature Shift of Wavelength	$d\lambda/dt$	-	0.46	-	nm/K	0°C-85°C, $P_f=3mW$
Monitor Current	$I_m$	0.4	0.8	-	MA	25°C, $P_f=3mW$
Monitor Dark Current	$I_{md}$	-	-	100	nA	$V_{RPD}=10V$

## Absolute Maximum Ratings

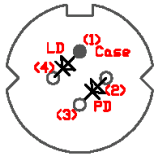
Parameter	Symbol	Min	Max	Unit
Light Output	$P_f$	-	4	mW
LD Reverse voltage	$V_{RLD}$	-	2	V
PD Reverse voltage	$V_{RPD}$	-	10	V
Operating Temperature	$T_{OP}$	-20	85	°C
Storage Temperature	$T_S$	-40	85	°C
Soldering Temperature	$T_{SOL}$	-	260	°C

Product Data

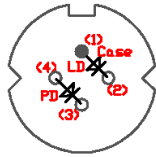


**Mechanical Specification and PIN layout**

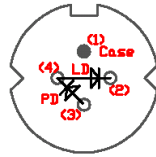
**Pin configuration**



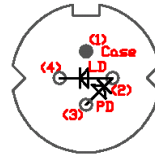
Pin layout 1



Pin layout 2

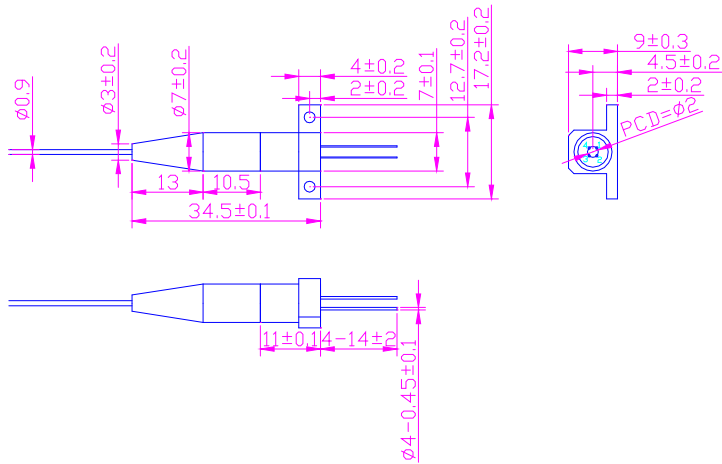


Pin layout 3

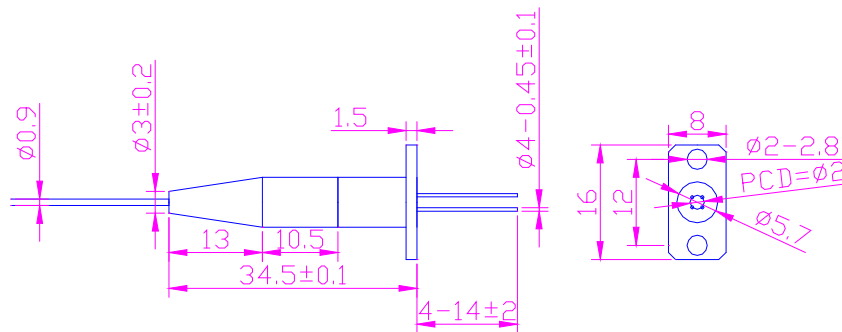


Pin layout 4

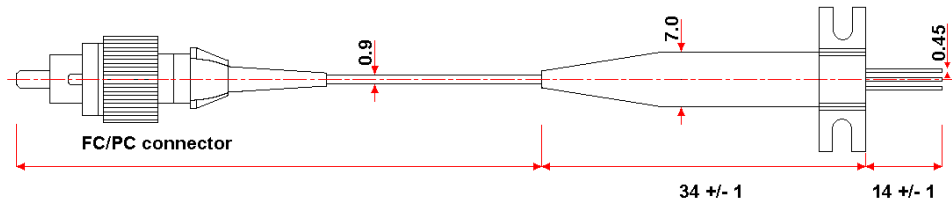
**Dimensions with horizontal flange:**



**Dimensions with vertical flange:**



### Coaxial module



### Ordering Information

When ordering ML1113 series lasers, please specify a configuration from the following selection:



### Safety Information

- The laser light emitted from this laser diode is invisible and potentially harmful to the human eye. Avoid eye and skin exposure to the beam, both direct and reflected.
- Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload. Please ensure ESD protection prior to handling the products.
- These Modulight products are not intended for use in systems where product malfunction can reasonably be expected to result in personal injury.



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