

## 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

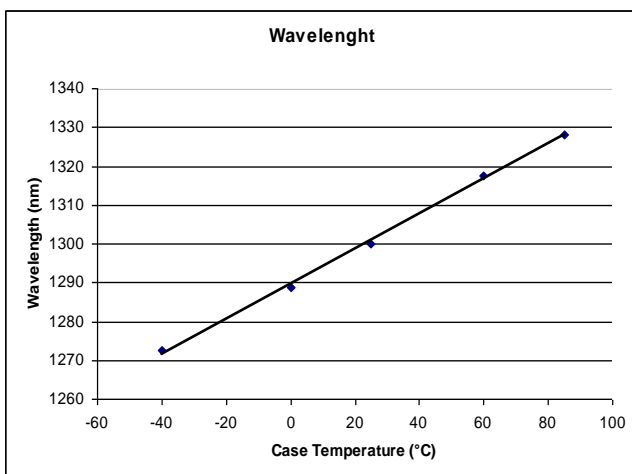
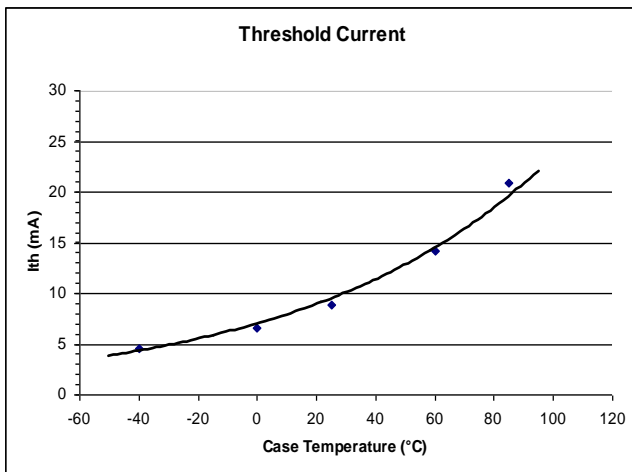
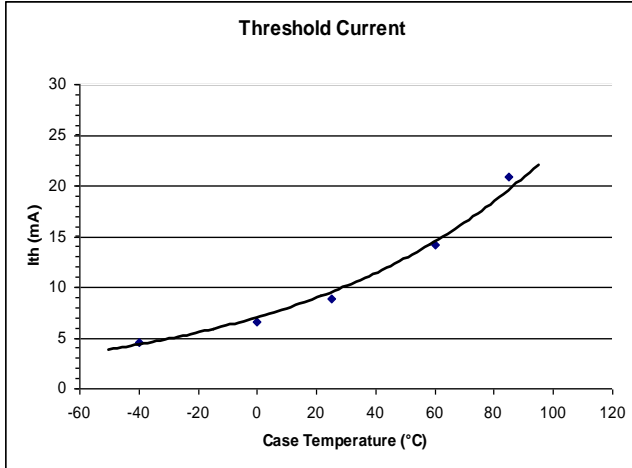
### Electro-optical Characteristics

Parameter	Symbol	Min	Typical	Max	Unit
Peak Wavelength ( $P_{OP} = 3 \text{ mW}$ )	$\lambda$	1270	1310	1340	nm
Optical Output Power ( $I_{OP} = I_{TH} + 26 \text{ mA}$ )	$P_{OP}$	-	2	3	mW
Operating Current ( $P_{OP} = 3 \text{ mW}$ )	$I_{OP}$	-	35	45	mA
Operating Voltage ( $I_{OP} = I_{TH} + 26 \text{ mA}$ )	$V_{OP}$	-	1.2	1.5	V
Slope Efficiency	$\eta$	0.08	0.12	-	W/A
Threshold Current	$I_{TH}$	-	11	18	mA
Spectral Width ( $P_{OP} = 3 \text{ mW}$ )	$\Delta\lambda$	-	0.85	2	nm
Wavelength - Temp. Coefficient (0...+85°C, $P_{OP} = 3 \text{ mW}$ )	$\Delta\lambda/\Delta T$	-	0.46	-	nm/K
Monitor Current ( $P_{OP} = 3 \text{ mW}$ )	$I_m$	0.4	0.8	-	mA
Monitor Dark Current ( $V_{RPD} = 10 \text{ V}$ )	$I_{md}$	-	-	100	nA

### Absolute Maximum Ratings

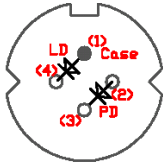
Parameter	Symbol	Rating	Unit
Light Output	$P_f$	4	mW
LD Reverse voltage	$V_{RLD}$	2	V
PD Reverse voltage	$V_{RPD}$	10	V
Operating Temperature	$T_{OP}$	-20...+85	°C
Storage Temperature	$T_S$	-40...+85	°C
Soldering Temperature (< 10 s)	$T_{SOL}$	260	°C

Product Data

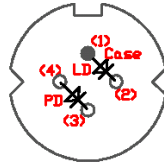


## Mechanical Specification and PIN layout

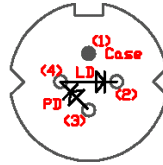
### Pin configuration



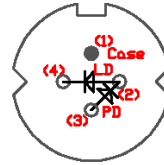
Pin layout 1



Pin layout 2

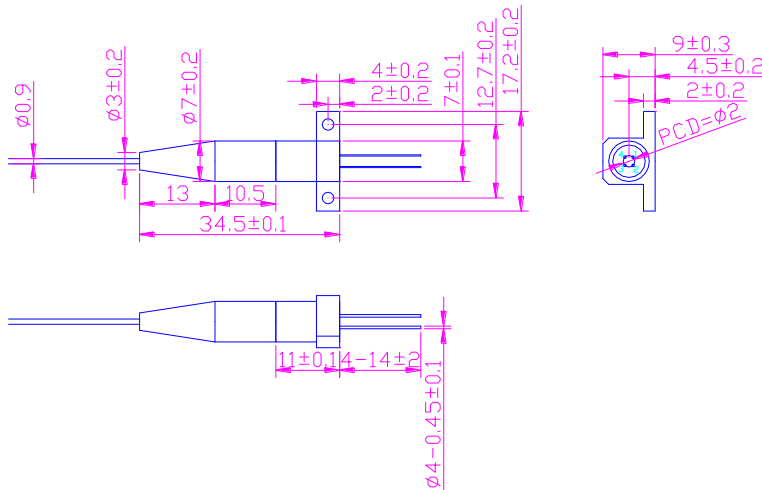


Pin layout 3

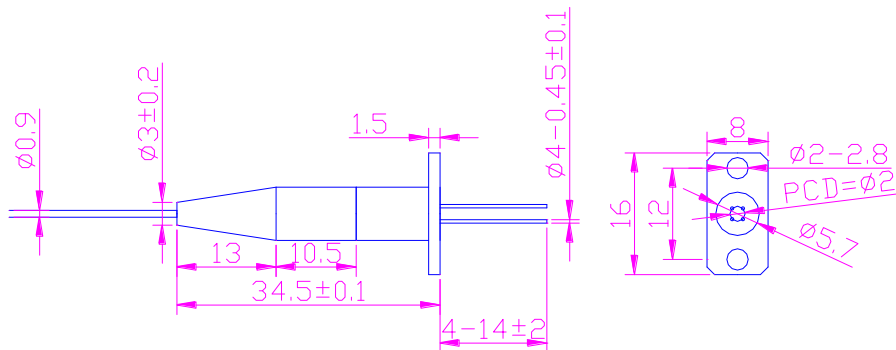


Pin layout 4

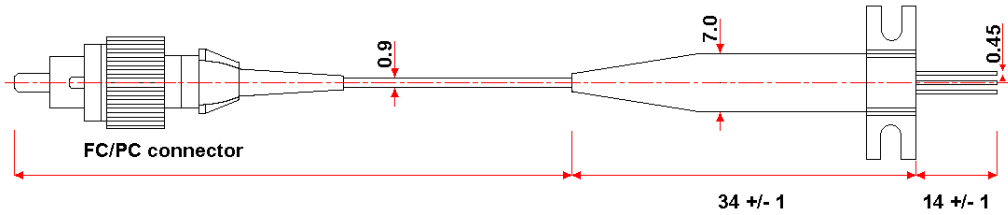
### Dimensions with horizontal flange:



### Dimensions with vertical flange:

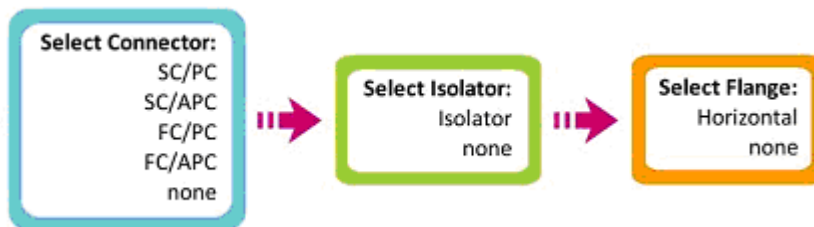


## Coaxial module



## 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.



Peak power and wavelength are for safety analysis only, not to present device performance.

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