

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

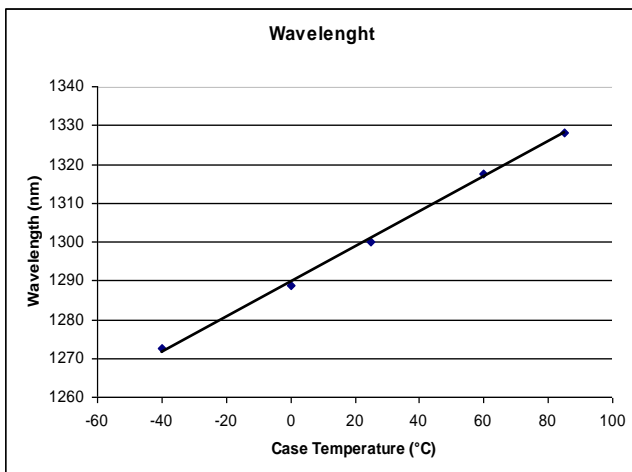
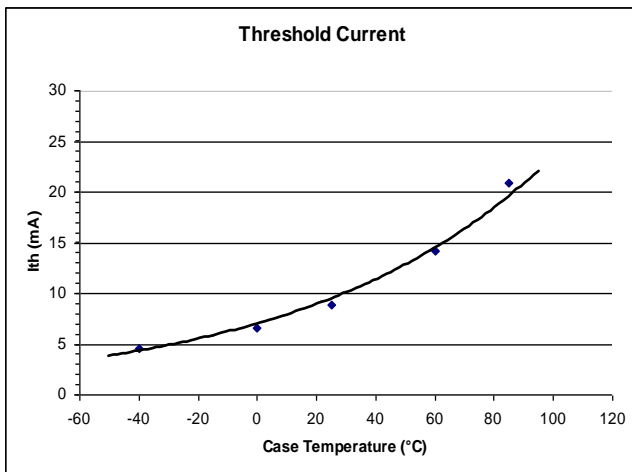
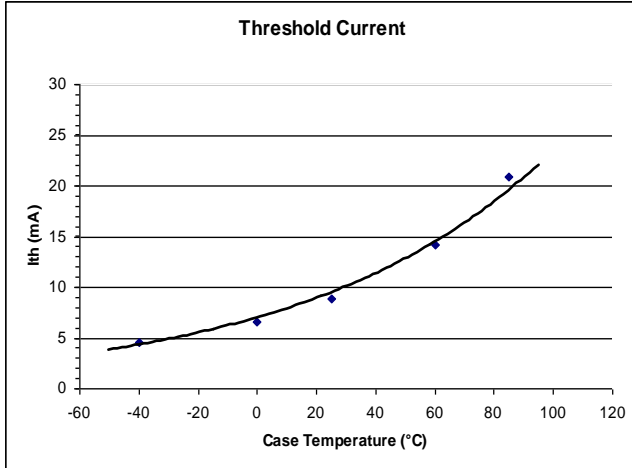
Electro-optical Characteristics

Parameter	Symbol	Min	Typical	Max	Unit
Peak Wavelength ($P_{OP} = 3 \text{ mW}$)	λ	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	η	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

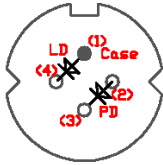
Parameter	Symbol	Rating	Unit
Light Output	P_f	4	mW
LD Reverse voltage	V_{RLD}	2	V
PD Reverse voltage	V_{RPD}	10	V
Operating Temperature	T_{OP}	-20...+85	°C
Storage Temperature	T_S	-40...+85	°C
Soldering Temperature (< 10 s)	T_{SOL}	260	°C

Product Data

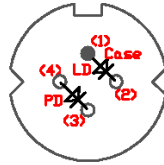


Mechanical Specification and PIN layout

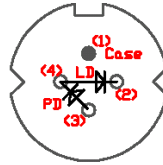
Pin configuration



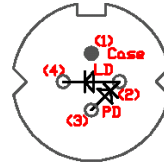
Pin layout 1



Pin layout 2

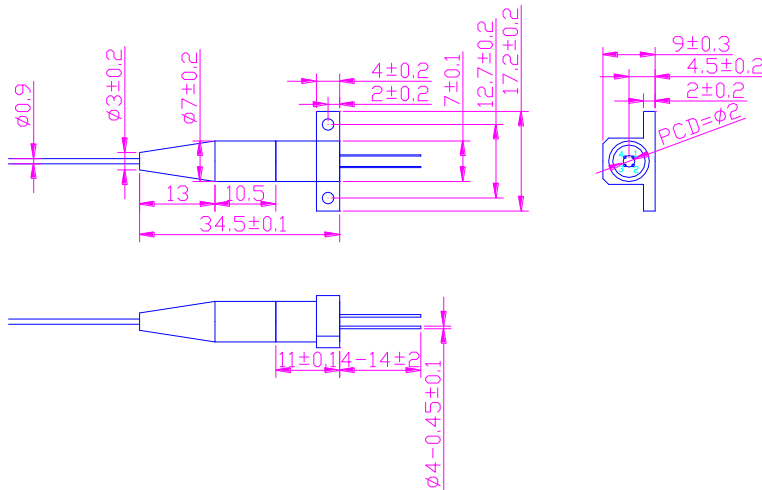


Pin layout 3

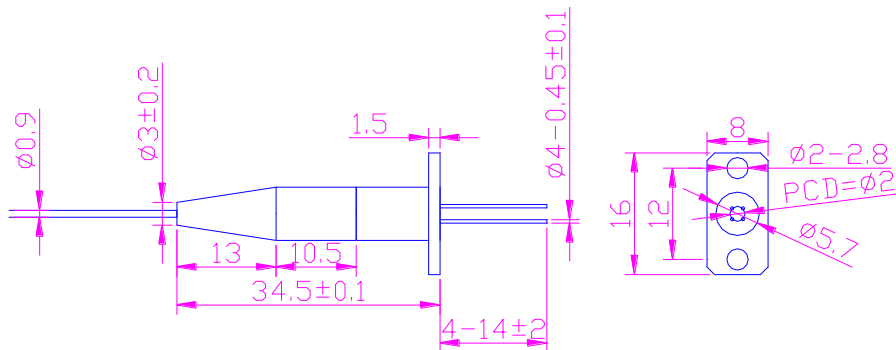


Pin layout 4

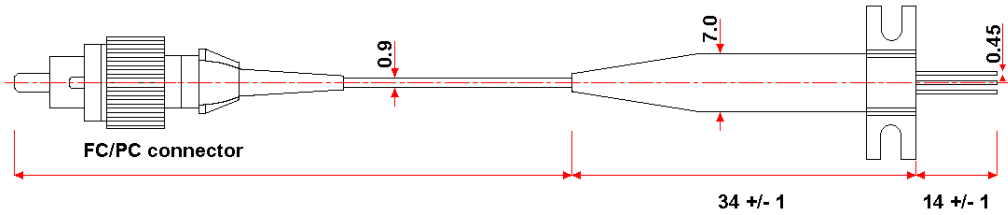
Dimensions with horizontal flange:



Dimensions with vertical flange:

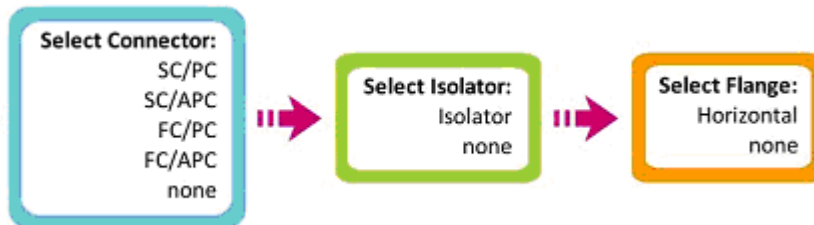


Coaxial module



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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