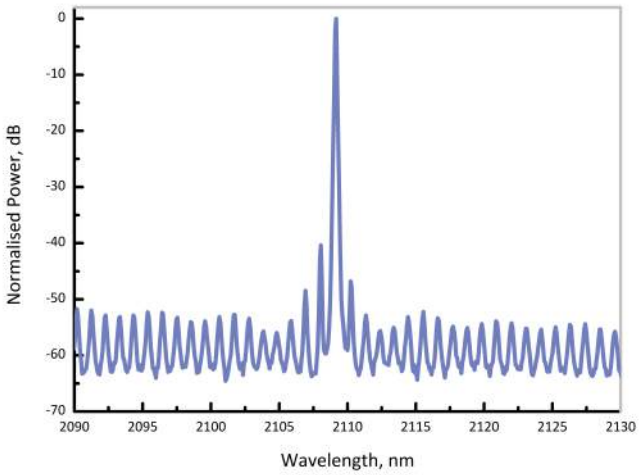
2108nm DM LASER

EP2108-DM-B - Preliminary

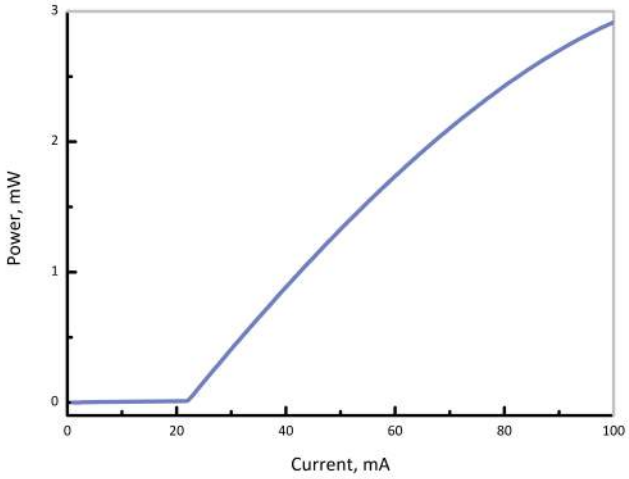
eblanaphotonics

ADVANCED N_2O SENSING

Eblana Photonics EP2108-DM-B laser diode is a cost effective, highly coherent laser source, designed using Eblana's discrete-mode (DM) technology. Excellent SMSR and tuning performance make it suitable for N_2O detection in TDLAS systems.



Optical Spectrum at 25°C (data from chip-on-submount tests



LIV characteristics (representative data)

ELECTRO-OPTICAL CHARACTERISTICS* (T_{SUB} = 25° C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Centre Wavelength Range	λ	2107	2108	2109	nm
Wavelength specification	λ_{spec}	λ -1	λ	λ +1	nm
Side Mode Supression Ratio	SMSR	30	40	-	dB
Threshold Current	I_{th}	-	25	40	mA
Output Power in fiber	P_f	-	2	-	mW
Optical linewidth	Δf	-	-	2	MHz
Temperature Tuning Coefficient	T_λ	-	0.1	-	nm/°C
Current Tuning Coefficient	I_λ	-	0.006	-	nm/mA
Slope Efficiency	SE	0.02	0.03	-	mW/mA
Thermistor Resistance	R_T	9.5	10	10.5	kΩ
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C

*CW bias unless otherwise stated

Cybel
1195 Pennsylvania Ave. Bethlehem, PA 18018 USA
Sales: contact@cybel-llc.com
Phone: (610) 691 7012
Website: www.cybel-llc.com

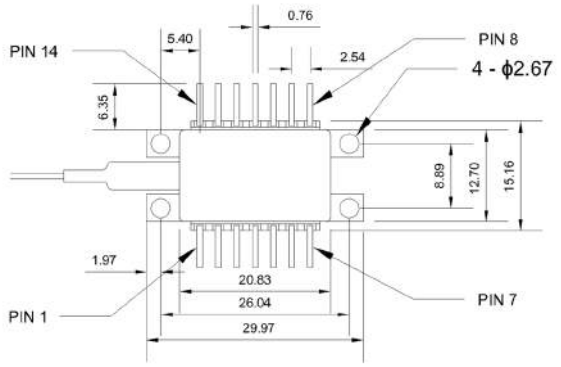
ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Forward Current	I_f	-	80	120	mA
Forward Voltage	V_f	-	1.3	1.6	V
TEC Current	I_{TEC}	-	0.5	1.0	A
Reverse Voltage LD	V_r	-	-	2.0	V
Case Temperature*	T_{Case}	-20	-	65	°C
Chip Submount Temperature	T_{Sub}	0	-	50	°C
Storage Temperature	$T_{storage}$	-40	-	85	°C

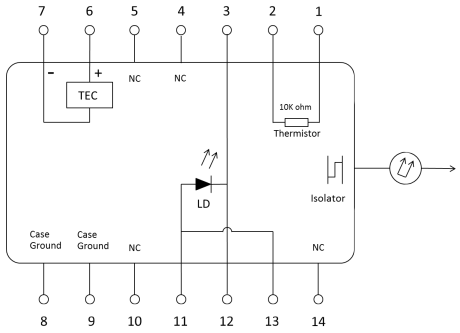
*For T_{sub} < 25°C, Max Case Temperature should be derated to $T_{Case,Max} = T_{sub} + 40°C$

PACKAGING

The EP2108-DM-B product series is offered in a 14-pin Butterfly package - Inquire for other packaging options. The standard package pinout is shown below - mPD not included as standard.



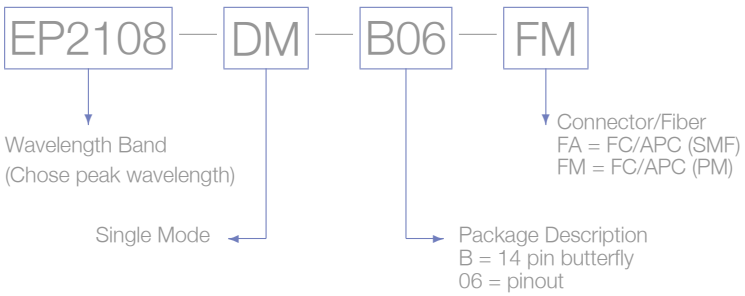
14-pin butterfly schematic



Standard ''Pinout 06'' option

HOW TO ORDER:

Construct your part number using the following example and email your order to **contact@cybel-llc.com**.



Laser Safety

This is a Class 3R Laser Product as defined by International Standard IEC 60825-1,Edition 2. Invisible Laser radiation is emitted from the end of the fiber or connector. Avoid direct eye exposure to the beam. Laser safety labels are not attached to the module due to space limitations but instead are affixed to the outside of the shipping carton.

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