

# 1890nm FP LASER

EP1890-FP-B

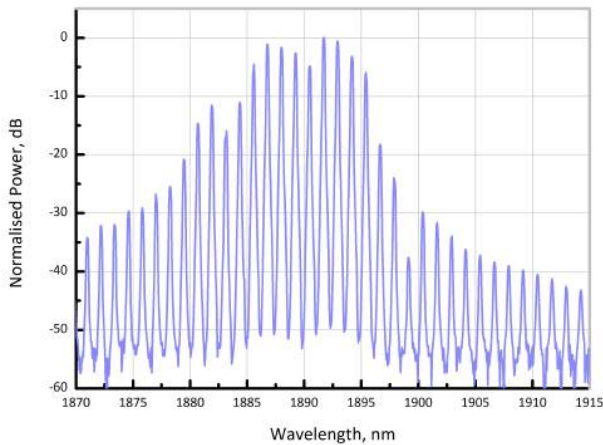


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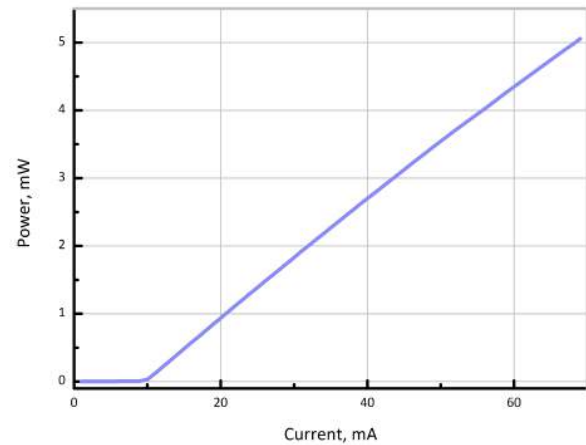


## SUPERIOR PERFORMANCE

Eblana Photonics EP1890-FP-B laser diode, available in range from 1845-1920nm, is a cost effective, highly coherent laser source. Eblana's advanced epistucture design is used to deliver an InP-based strained quantum-well FP laser with low threshold current and excellent spectral characteristics.



Optical Spectrum at 25°C, 50mA



Fiber coupled power as a function of bias current

## ELECTRO-OPTICAL CHARACTERISTICS\* ( $T_{SUB} = 25^{\circ} C$ )

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Centre Wavelength Range	$\lambda$	1845	1890	1920	nm
Side Mode Supression Ratio	SMSR	-	N/A	-	dB
Threshold Current	$I_{th}$	-	10	20	mA
Output Power in fiber	$P_f$	6	10	14	mW
Temperature Tuning Coefficient	$T_{\lambda}$	-	0.1	-	nm/°C
Current Tuning Coefficient	$I_{\lambda}$	-	0.01	-	nm/mA
Slope Efficiency	SE	0.05	0.08	-	mW/mA
Forward Voltage	$V_f$	-	1.3	1.6	V
Thermistor Resistance	$R_T$	9.5	10	10.5	k $\Omega$
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C

\*CW bias unless otherwise stated

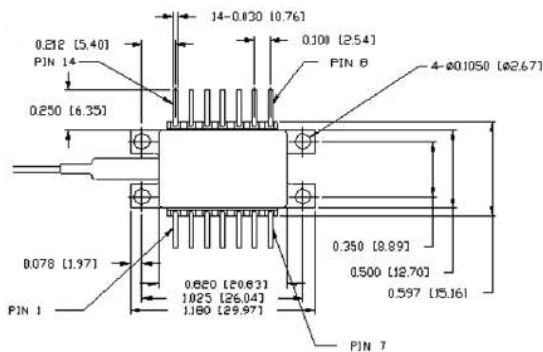
## ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Forward Current	$I_f$	-	-	220	mA
TEC Current	$I_{TEC}$	-	-	1.2	A
Reverse Voltage LD	$V_{rev}$	-	-	2.0	V
Case Temperature*	$T_{Case}$	-20	-	50	°C
Chip Submount Temperature	$T_{Sub}$	0	--	50	°C
Storage Temperature	$T_{storage}$	-40	-	85	°C

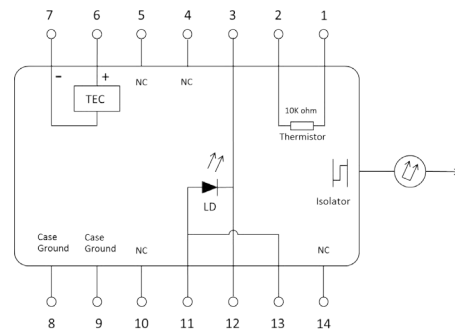
\*For  $T_{sub} < 25^{\circ}\text{C}$ , Max Case Temperature should be derated to  $T_{Case,Max} = T_{sub} + 40^{\circ}\text{C}$

## PACKAGING

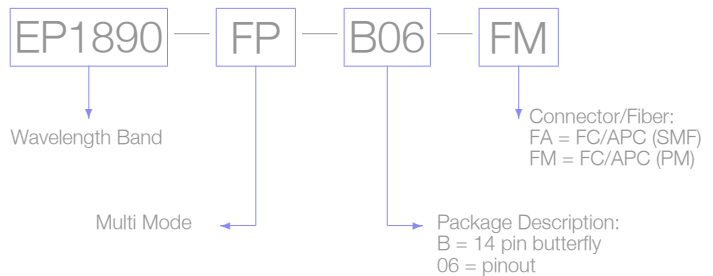
The EP1890-FP-B product series is offered in a 14-pin Butterfly package - Inquire for alternative packaging options. The standard package pinout is shown below, variations may be requested. mPD not included as standard.



14-pin butterfly schematic



Standard "Pinout 06" option



### 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.