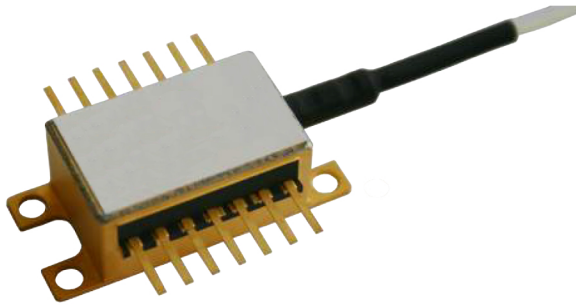


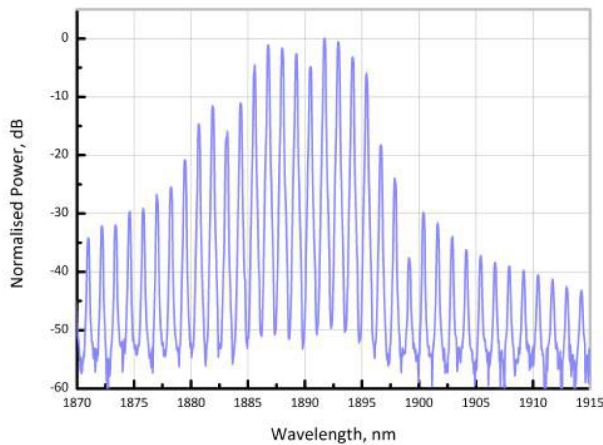
1890nm FP LASER

REP1890-FP-B

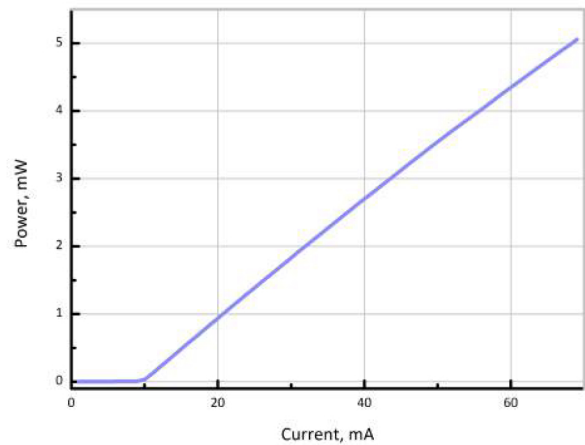


SUPERIOR PERFORMANCE

RPMC Lasers REP1890-FP-B laser diode, available in range from 1845-1920nm, is a cost effective, highly coherent laser source. RPMC's advanced epitaxial 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	λ	1845	1890	1920	nm
Side Mode Suppression 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_{λ}	-	0.1	-	nm/°C
Current Tuning Coefficient	I_{λ}	-	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 Ω
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C

*CW bias unless otherwise stated

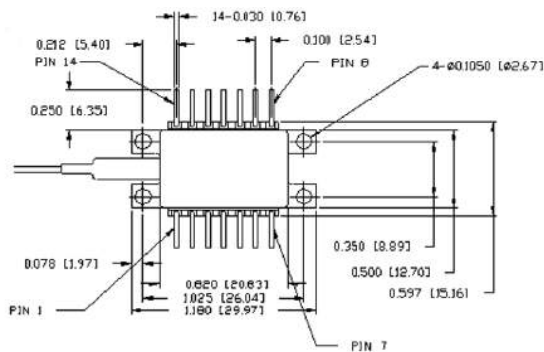
ABSOLUTE MAXIMUM RATINGS

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

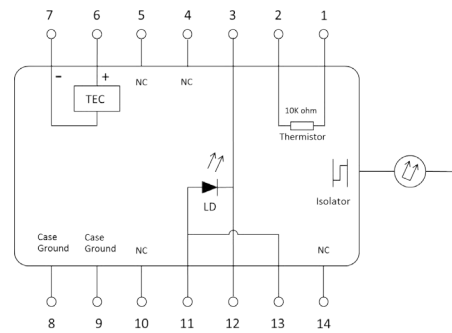
*For $T_{sub} < 25^{\circ}C$, Max Case Temperature should be derated to $T_{Case,Max} = T_{sub} + 40^{\circ}C$

PACKAGING

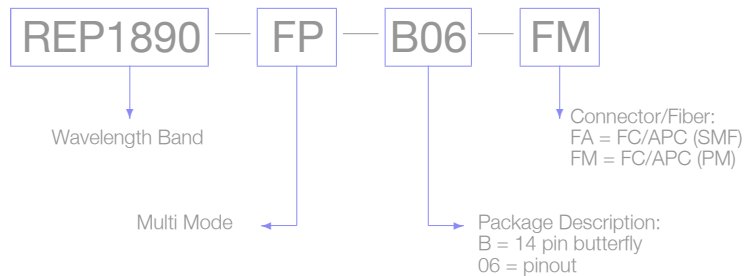
The REP1890-FP-B product series is offered in a 14-pin Butterfly package - Inquire for alternative packaging options. The standard package pinout is shown below, variations may be requested.



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.