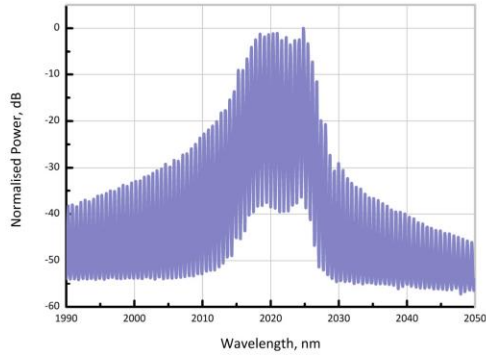


2020nm FP LASER

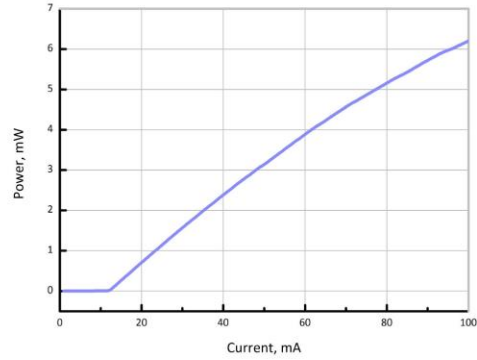
EP2020-FP-TP39

SUPERIOR PERFORMANCE

Eblana Photonics EP2020-FP-TP39 laser diode, available in range from 1950-2150nm, is a cost effective, highly coherent laser source. Eblana's advanced epistructure design is used to deliver an InP-based strained quantum-well FP laser with applications in CO₂ monitoring and free space comms.



Optical Spectrum at 25°C



Output power as a function of bias current

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Centre Wavelength Range	λ	1950	2020	2150	nm
Side Mode Supression Ratio	SMSR	-	N/A	-	dB
Threshold Current	I _{th}	-	20	30	mA
Facet output power	P _f	6	10	-	mW
Forward Voltage	V _f	-	1.3	1.6	V
Temperature Tuning Coefficient	T _{λ}	-	0.5	-	nm/°C
Slope Efficiency	SE	0.1	0.12	-	mW/mA
Thermistor Resistance	R _T	9.7	10	10.3	k Ω
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C
Beam divergence - perpendicular	θ_{\perp}	-	46	-	degrees
Beam divergence - parallel	θ_{\parallel}	-	33	-	degrees

*CW bias unless otherwise stated

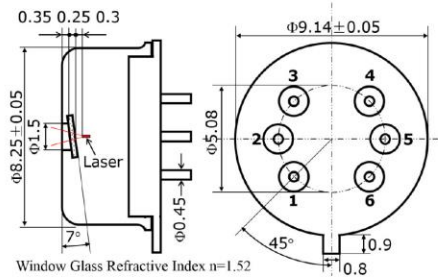
ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Forward Current	I_f	-	-	220	mA
TEC Current	I_{TEC}	-	-	0.7	A
Reverse Voltage LD	V_r	-	-	2.0	V
Case Temperature*	T_{Case}	-20	-	65	°C
Chip Submount Temperature	T_{Sub}	0	-	40	°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 EP2020-FP-TP39 product series is offered in an industry standard TO39 package - Inquire for other packaging options. The standard package pinout is shown below, variations may be requested. mPD not included as standard.



TO39 schematic

Pin No.	Description
1	LD+
2	Thermistor
3	Thermistor
4	LD-
5	TEC+
6	TEC-

Standard "Pinout 01" option

HOW TO ORDER

Construct your order using the following example and email to sales@eblanaphotonics.com, or call +353 1 675 3228.

