1580nm DM LASER

REP1580-DM-B

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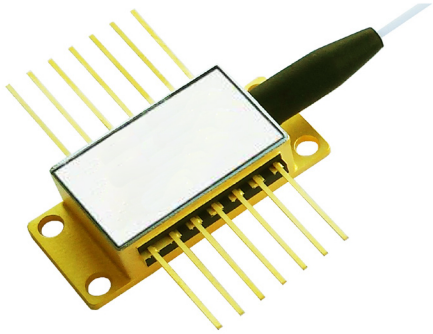
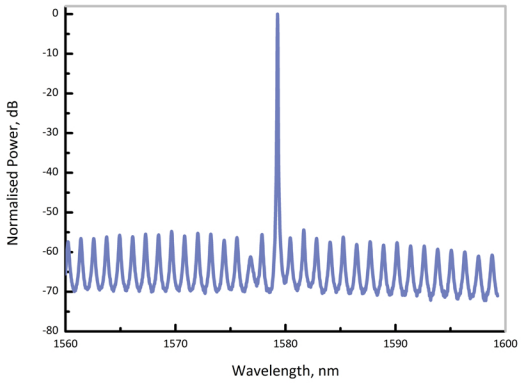
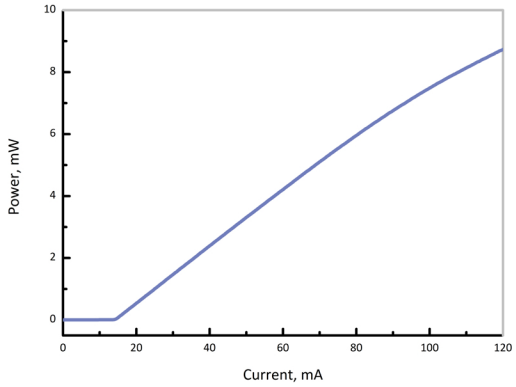


SUPERIOR SENSITIVITY

RPMC Lasers REP1580-DM-B laser, available in the 1560-1595nm range, is designed to coincide with H_2S, CO and CO_2 absorption lines around 1580nm. RPMC's Discrete-Mode (DM) technology enables tunable single-mode operation with no mode-hops, at a competitive price.



Typical 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
Available Wavelength Range	λ	1560	1580	1595	nm
Wavelength Tolerance	λ_{spec}	λ -1	λ	λ +1	nm
Side Mode Supression Ratio	SMSR	30	40	-	dB
Threshold Current	I_{th}	-	15	20	mA
Output Power in fiber	P_f	4	6	-	mW
Optical linewidth	Δf	-	-	2	MHz
Temperature Tuning Coefficient	T_λ	-	0.1	-	nm/°C
Current Tuning Coefficient	I_λ	-	0.01	-	nm/mA
Slope Efficiency	SE	0.06	0.09	-	mW/mA
Thermistor Resistance	R_T	9.5	10	10.5	kΩ
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C

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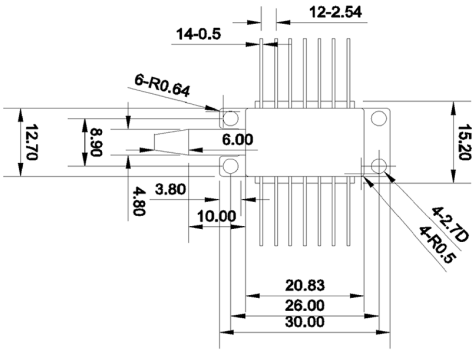
ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	MAX	UNIT
Forward Current	I_f	-	120	mA
Forward Voltage	V_f	-	2	V
TEC Current	I_{TEC}	-	1.2	A
Reverse Voltage LD	V_r	-	2	V
Reverse Voltage PD	V_{rev}	-	20	V
Case Temperature*	T_{Case}	-20	65	°C
Chip Submount Temperature	T_{Sub}	0	50	°C
Storage Temperature	$T_{storage}$	-40	85	°C

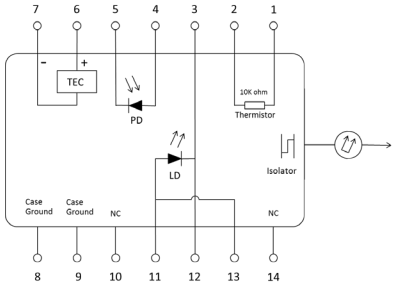
*For T_{sub} < 25°C, Max Case Temperature should be derated to $T_{Case,Max} = T_{sub} + 40°C$

PACKAGING

The REP1580-DM-B product series is offered in a 14-pin But-terfly package - Inquire for other packaging options. The standard package pinout is shown below, variations may be requested.



14-pin butterfly schematic



Standard "Pinout 01" option

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REP1580 – 0 – DM – B01 – FA

- REP1580 – Wavelength Band
- 0 – Single Mode
- DM – Single Mode
- B01 – Package Description: B = 14 pin butterfly, 01 = pinout
- FA – Connector/Fiber: FA = FC/APC (SMF), FM = FC/APC (PM)

Laser Safety

This is a Class 3R Laser Product as defined by International Standard IEC 60825-1,Edition 3. 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.