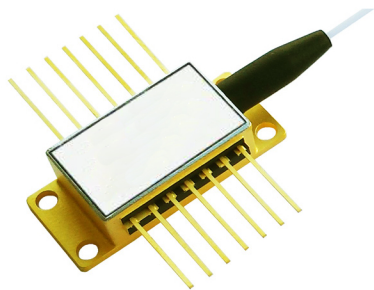


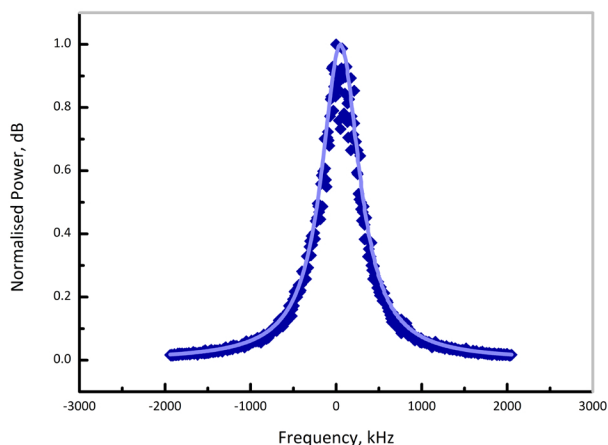
# 1550nm NLW LASER

REP1550-NLW-B-400

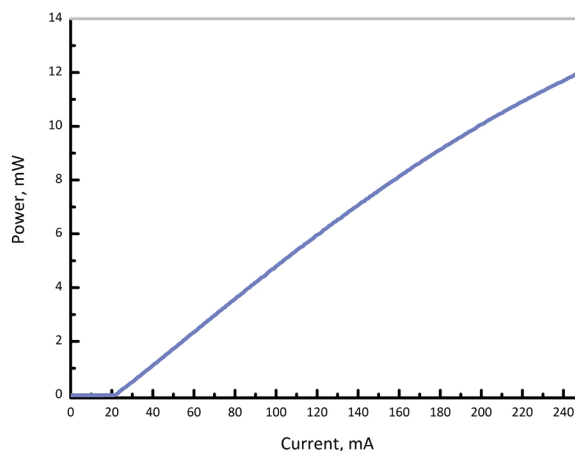


## MONOLITHIC COHERENCE

RPMC Lasers REP1550-NLW-B laser diode features an ultra-narrow linewidth making it ideal for coherent comms and metrology applications. RPMC's Discrete-Mode (DM) technology enables excellent SMSR and tunability at a highly competitive price.



Self-heterodyne linewidth measurement at 200mA



Output power as a function of bias current

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Optical linewidth	$\Delta f$	-	-	400	kHz
Available Wavelength Range	$\lambda$	-	1550	-	nm
Wavelength specification	$\lambda_{spec}$	$\lambda - 1$	$\lambda$	$\lambda + 1$	nm
Side Mode Supression Ratio	SMSR	30	40	-	dB
Threshold Current	$I_{th}$	-	25	30	mA
Output Power in fiber	$P_f$	5	8	-	mW
Temperature Tuning Coefficient	$T_{\lambda}$	-	0.09	-	nm/ $^{\circ}C$
Current Tuning Coefficient	$I_{\lambda}$	-	7	-	pm/mA
Slope Efficiency	SE	0.03	0.05	-	mW/mA
Thermistor Resistance	$R_T$	9.5	10	10.5	k $\Omega$
Thermistor Temp. Coefficient	C	-	-4.4	-	%/ $^{\circ}C$

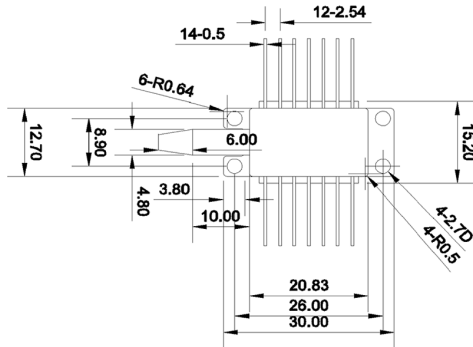
# ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	MAX	UNIT
Forward Current	$I_f$	-	250	mA
Forward Voltage	$V_f$	-	2	V
TEC Current	$I_{TEC}$	-	1.2	A
Reverse Voltage LD	$V_r$	-	2	V
Case Temperature*	$T_{Case}$	-20	65	°C
Chip Submount Temperature	$T_{Sub}$	0	50	°C
Storage Temperature	$T_{storage}$	-40	85	°C

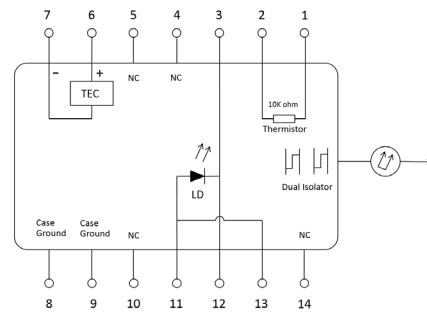
\*For  $T_{sub} < 25^{\circ}C$ , Max Case Temperature should be derated to  $T_{Case,Max} = T_{sub} + 40^{\circ}C$

## PACKAGING

The REP1550-NLW-B product series is offered in a 14-pin Butterfly package - Inquire for other packaging options. The standard package pinout is shown below, variations may be requested.



14-pin butterfly schematic



Standard "Pinout 26" option



REP1550 - 0 - NLW - B26 - 400FM

Wavelength Band

Single Mode - Narrow Linewidth

400=400kHz linewidth  
FA = FC/APC (SMF)  
FM = FC/APC (PM)

Package Description:  
B = 14 pin butterfly  
26 = dual iso, pinout 06



### 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.