

1654 nm DFB Laser Specifications

Model Number: NL1654-B

Operating Parameters

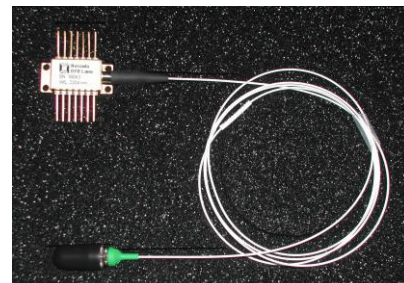
PARAMETER	UNITS	MIN.	MAX.
Storage Temperature	°C	-40	50
Case Operating Temperature	°C	-20	50
TEC Current	A		1.4
Laser Diode Forward Current	mA		125
Laser Diode Reverse Voltage	V		2

Laser Characteristics

PARAMETER	CONDITION	UNITS	TYPICAL VALUE
Threshold Current	25 °C	mA	10
Operating Wavelength	85 mA & 20 °C	nm	1654 ± 1
Operating power	85 mA & 20 °C	mW	8
Forward Voltage	85 mA & 20 °C	V	1.40
Thermistor Resistance	25 °C	kΩ	10 ± 0.1%
Thermistor B Constant	25 °C		3890
Temperature Tuning		nm/°C	0.10
Drive Current Tuning	near 1654 nm	nm/mA	0.03
Side mode suppression ratio (SMSR)		dB	> 30

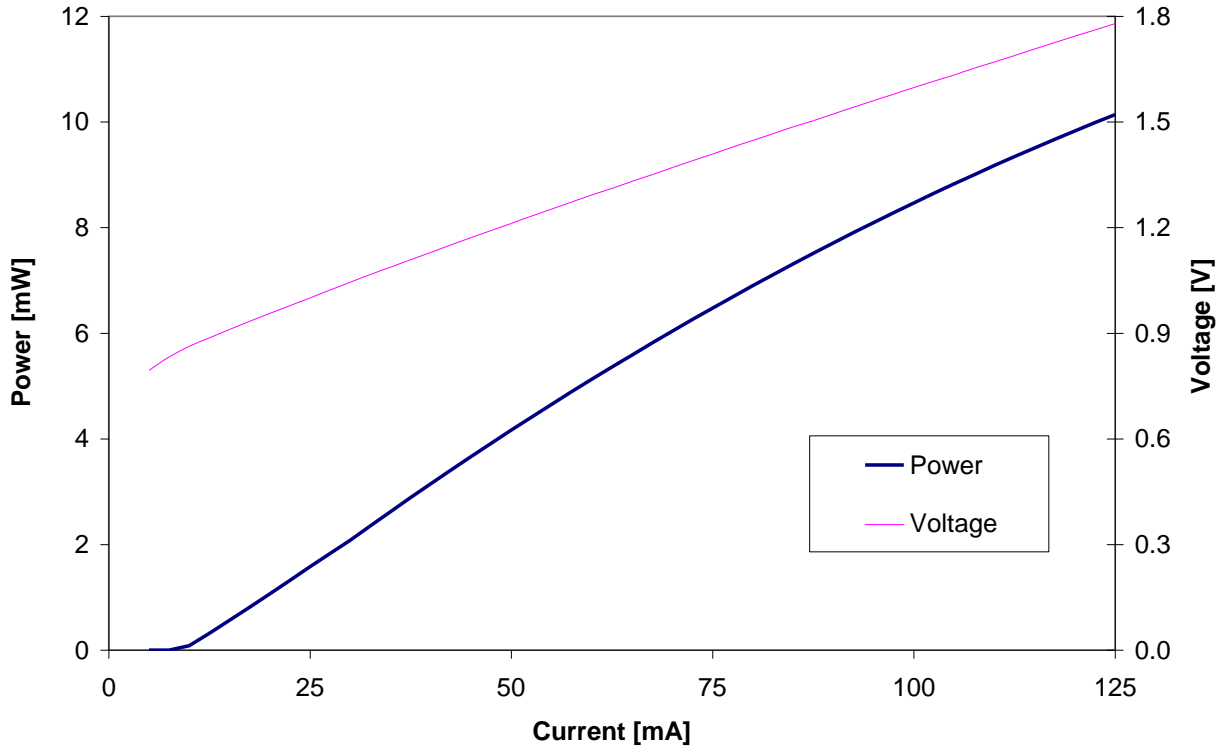
Package:

- 14-pin Butterfly package, hermetically sealed
- AR coated Sapphire window, R<0.1%
- Internal TEC and thermistor
- Internal optical isolator
- 1.2 m long single mode fiber with FC/APC connector

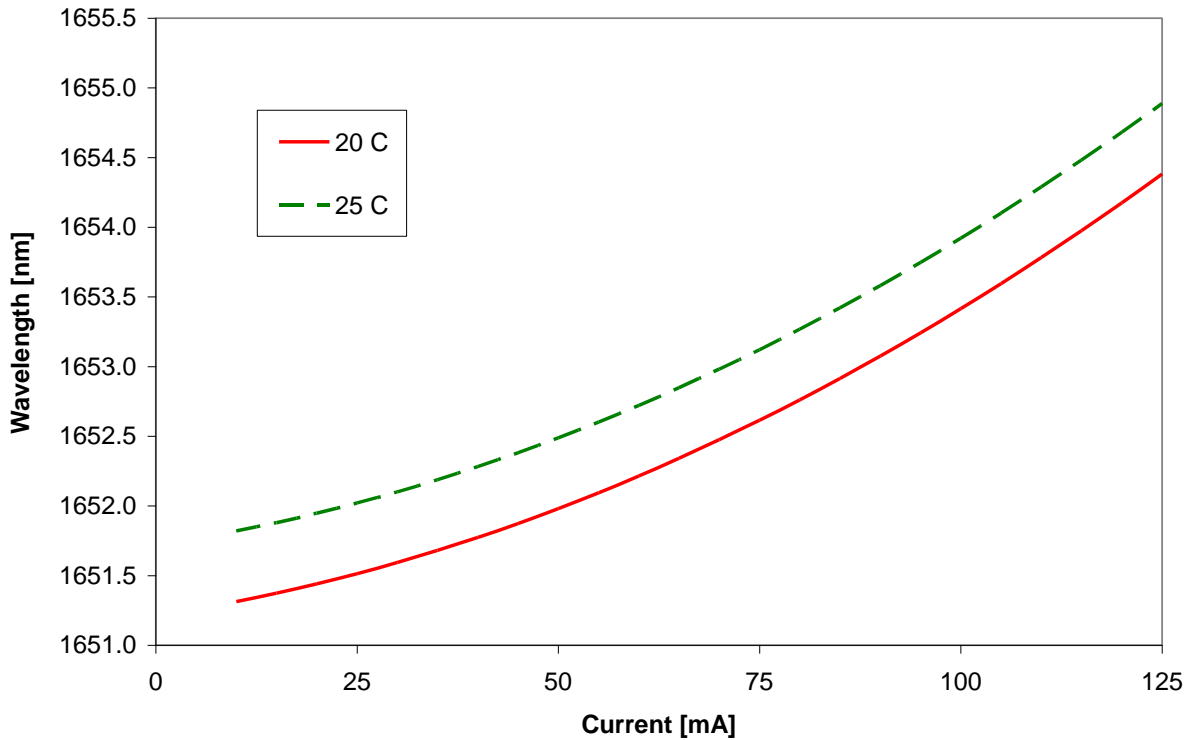


Caution: Laser diode produces invisible radiation during operation and is sensitive to electrostatic surge. Please read handling instruction carefully before working with the laser.

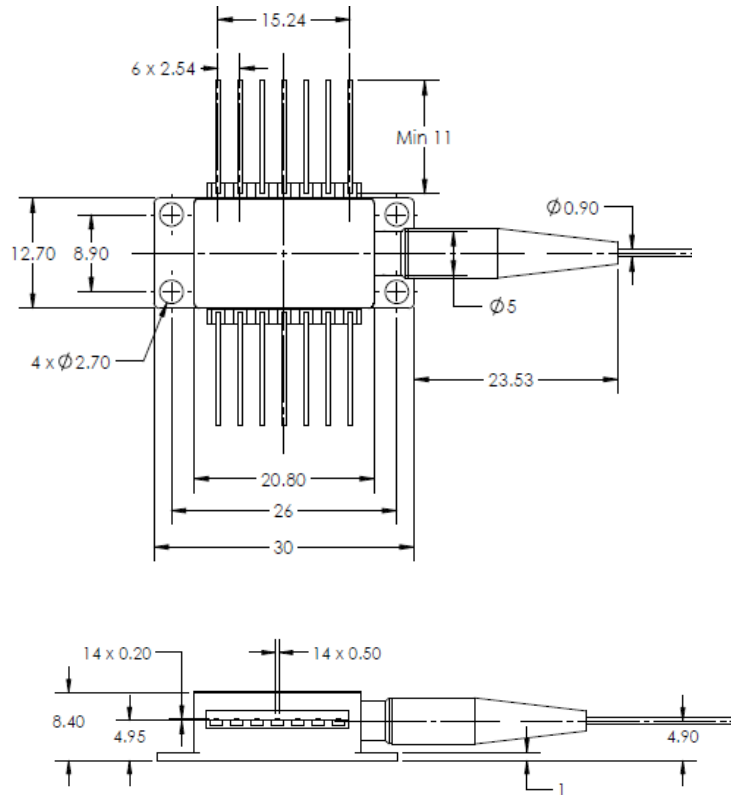
Optical Power & Forward Voltage vs Drive Current at 25°C



Wavelength vs Drive Current

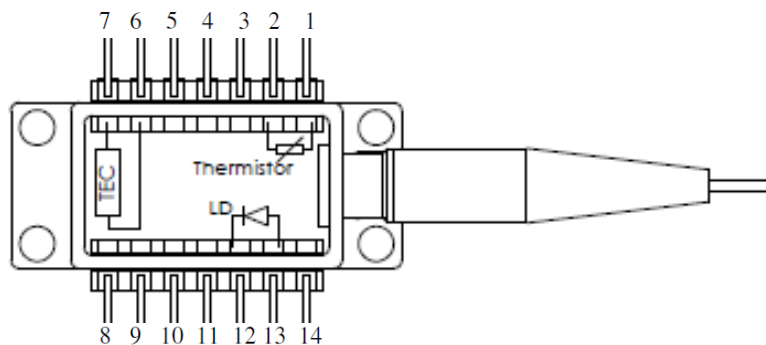


Package Outline Diagram:



All dimensions are in mm

Schematic Diagram:



Pin #	Function	Pin #	Function
1	Thermistor	8	Not Used
2	Thermistor	9	Not Used
3	Not Used	10	Not Used
4	Not Used	11	Not Used
5	Not Used	12	Laser Diode Cathode (-)
6	TEC (+)	13	Laser Diode Anode (+)
7	TEC (-)	14	Not Used