



## Tunable IR DFB Lasers – 1512 nm Specifications

Model Number: NL1512-T

Package Type: TO 39 – Hermetically sealed with a 7° tilted window

### Operating Parameters

Parameter	Units	Min.	Max.
Storage Temperature	°C	-40	80
Case Operating Temperature	°C	-20	50
TEC Current	A		1.2
Laser Diode Forward Current	mA		125
Laser Diode Reverse Voltage	V		2

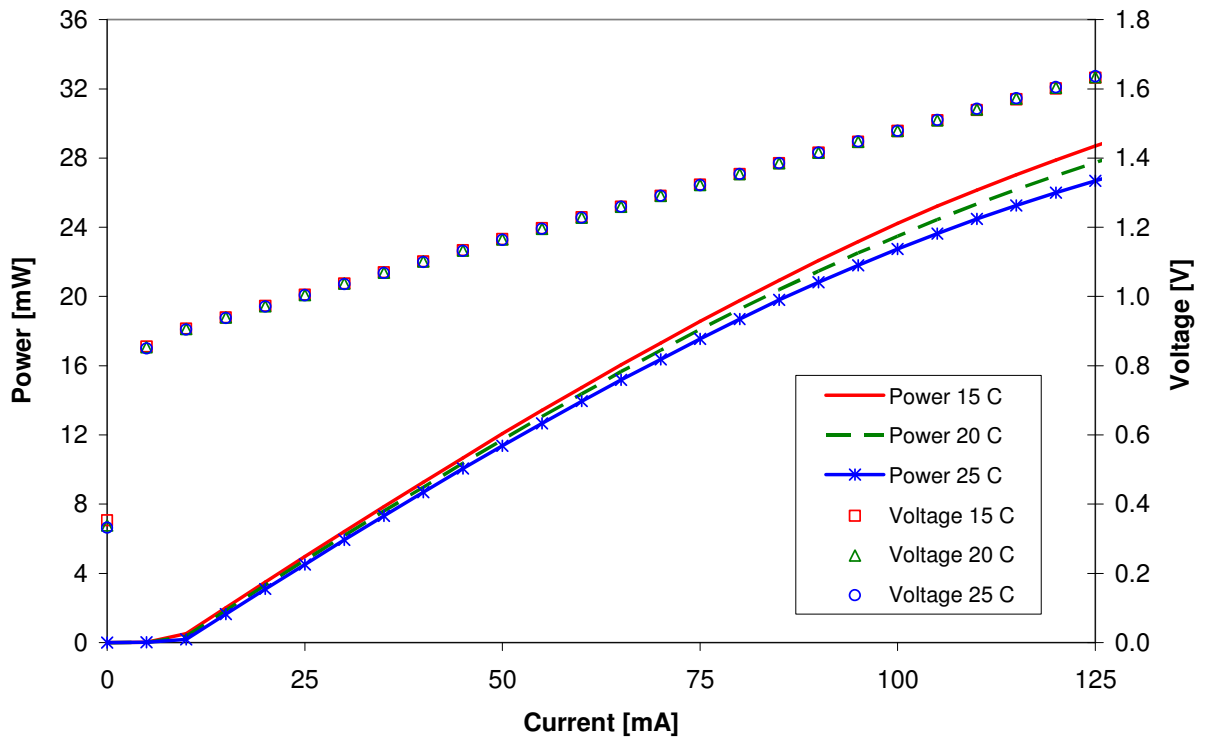
### Laser Characteristics

Parameter	Condition	Units	Typical Value
Threshold Current	25 °C	mA	10
Operating wavelength	60 mA & 25 °C	nm	1512 ± 1
Operating Power	60 mA & 25 °C	mW	14
Forward Voltage	60 mA & 25 °C	V	1.25
Maximum Power	125 mA & 25 °C	mW	26
Thermistor Resistance	25 °C	kΩ	10 ± 10%
Thermistor B constant	25 °C		3890
Temperature Tuning		nm/°C	0.10
Drive Current Tuning	near 1512 nm	nm/mA	0.017
Side mode suppression ratio (SMSR)		dB	> 25

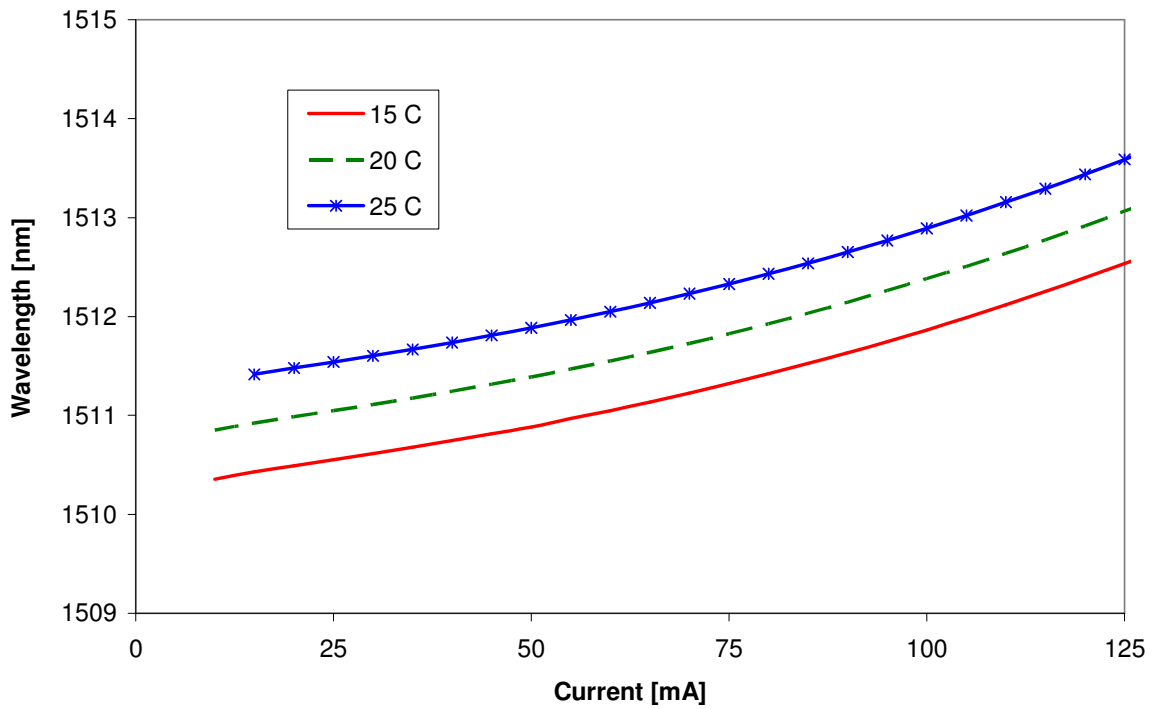
**Caution:** Electrostatic surge could cause permanent damage to the laser diodes. Always set the output level of the power supply to zero before connecting or disconnecting a laser diode.

**Caution:** During operation, this device emits invisible laser radiation. Avoid direct exposure to the beam.

### Optical Power & Forward Voltage vs Drive Current

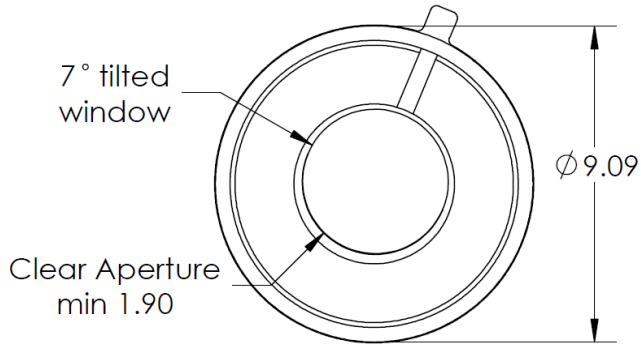


### Peak Wavelength vs Drive Current

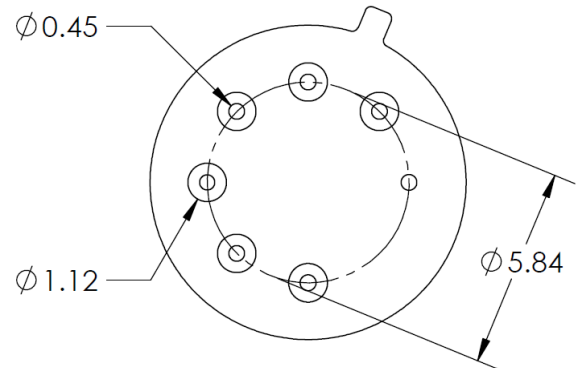


## Outline Diagrams:

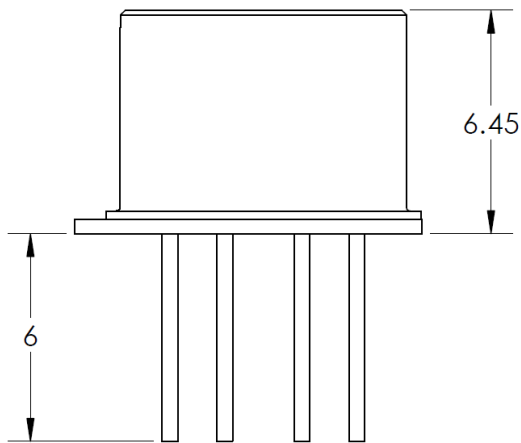
### Top View



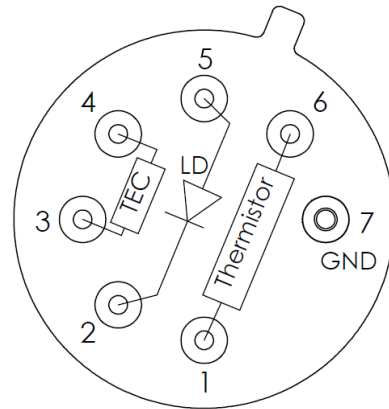
### Bottom View



### Front View



### Schematic Diagram (Bottom View)



Pin Number	Description
1	Thermistor
2	LD Cathode (-)
3	TEC +
4	TEC -
5	LD Anode (+)
6	Thermistor
7	Ground