



## Tunable IR DFB Lasers – 1580 nm Specifications

Model Number: NL1580-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

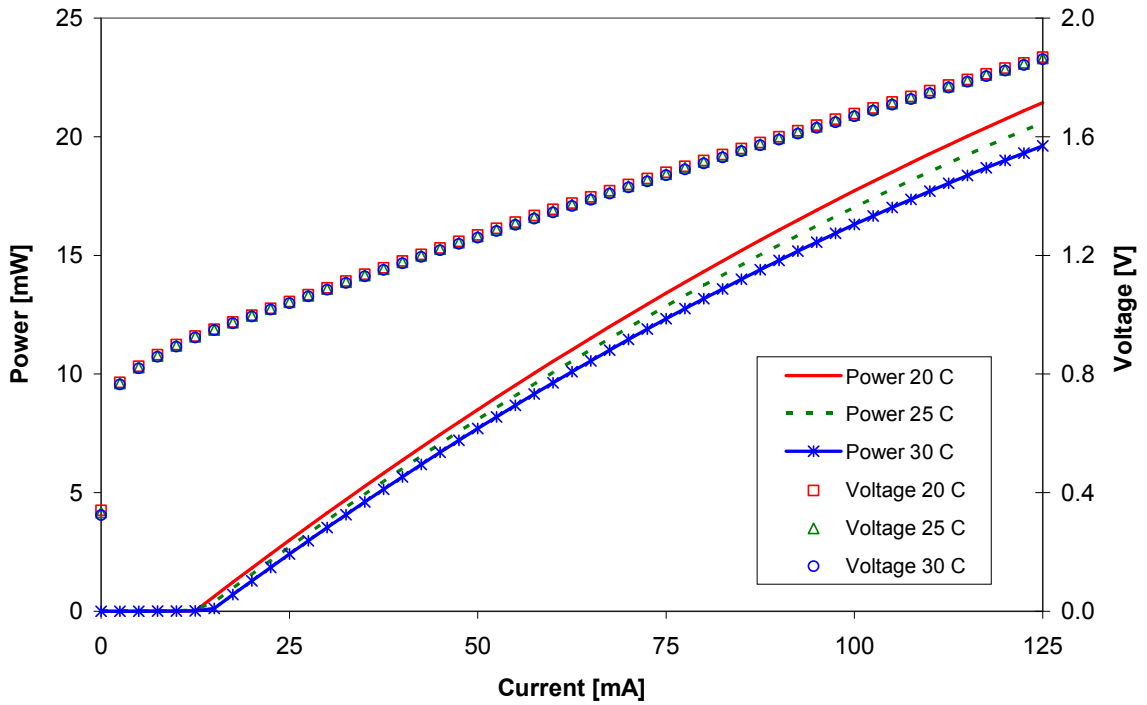
### Laser Characteristics

PARAMETER	CONDITION	UNITS	TYPICAL VALUE
Threshold Current	25 °C	mA	12
Operating wavelength	100 mA & 35°C	nm	1580 ± 1
Operating Power	100mA & 35°C	mW	12
Forward Voltage	100mA & 35°C	V	1.5
Maximum Power	35 °C	mW	15
Thermistor Resistance	25 °C	kΩ	10 ± 10%
Thermistor B constant	25 °C		3890
Temperature Tuning		nm/°C	0.1
Drive Current Tuning	near 1580 nm	nm/mA	0.03
Side mode suppression ratio (SMSR)		dB	> 30

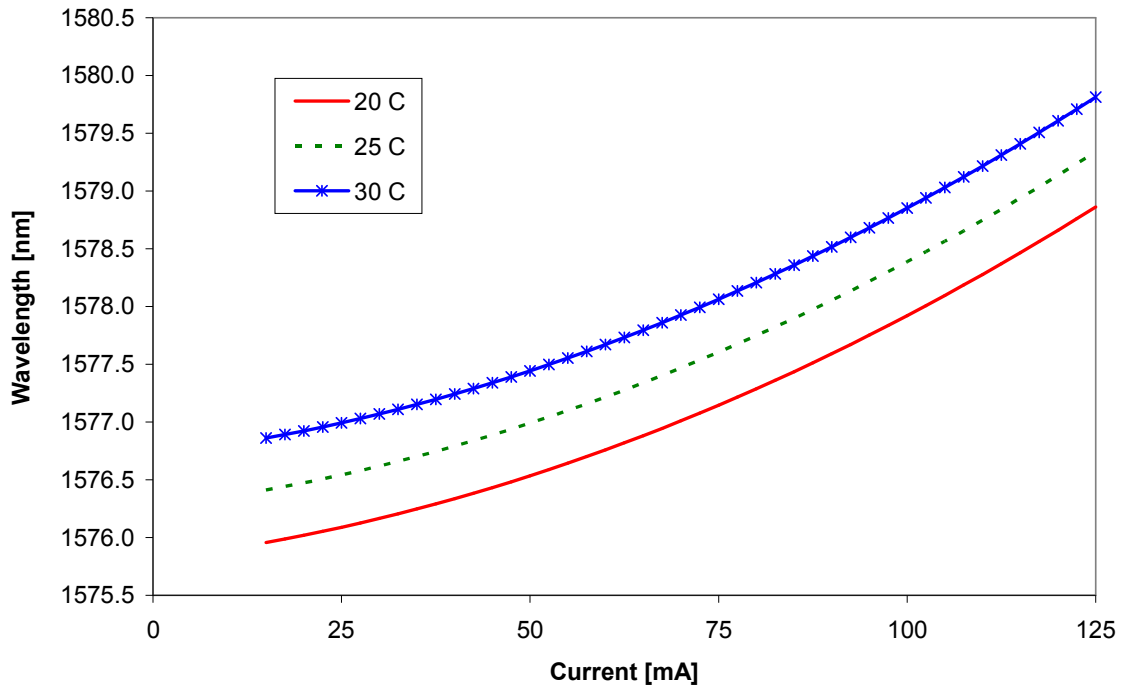
**Caution:** Electrostatic surge could cause permanent damage to the laser diodes. Always set the output level of the power supply to zero before connecting or disconnecting a laser diode.

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

### Optical Power & Forward Voltage vs Drive Current

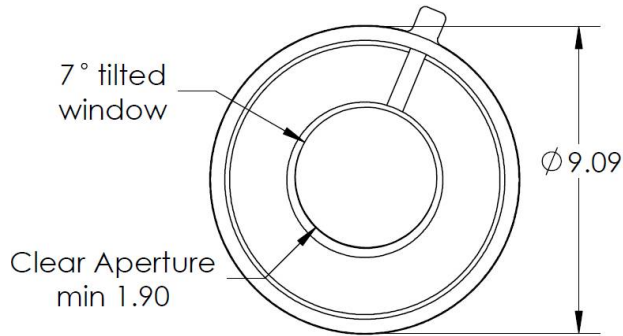


### Wavelength vs Drive Current

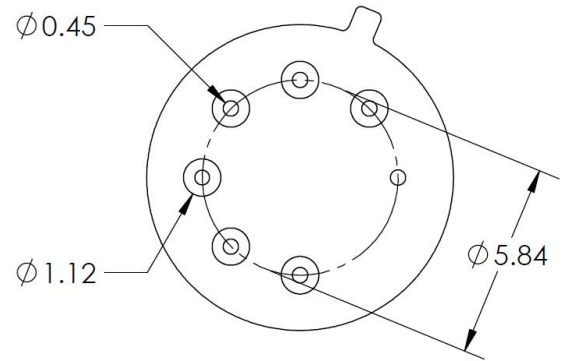


## Outline Diagrams:

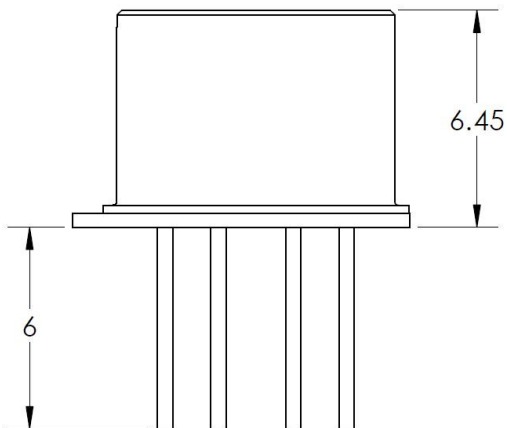
### Top View



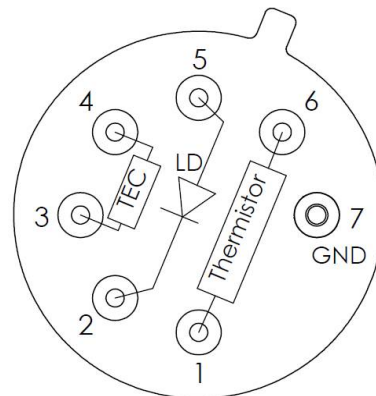
### Bottom View



### 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