

nLIGHT's visible single emitter devices have been designed for the Medical Market, and provides state-of-the-art power and brightness. nLIGHT's proprietary single-emitter integration technology enables industry-leading efficiency and reliability, thus minimizing system footprint and maximizing reliability.

The small emitting aperture, combined with low beam divergence, make these devices the highest-brightness family of CW visible diode lasers available in the industry.

Visible single emitter devices are available in wavelengths at 639 nm, 665 nm, 680 nm, and 690 nm. These commercially recognized formats allow easy integration into your existing products.

nLIGHT's diode laser design is based on the company's proprietary MOCVD-grown laser structure, which results in highly reliable, long lifetime products.

Features

- Patented nXLT™ diode protection for extended life
- Low-current, fault-tolerant architecture
- Industry-leading wall-plug efficiency
- Narrow line spectrum
- High polarization purity

Applications

- PDT
- Biochemistry
- Military
- Medical therapeutics

Proven Performance

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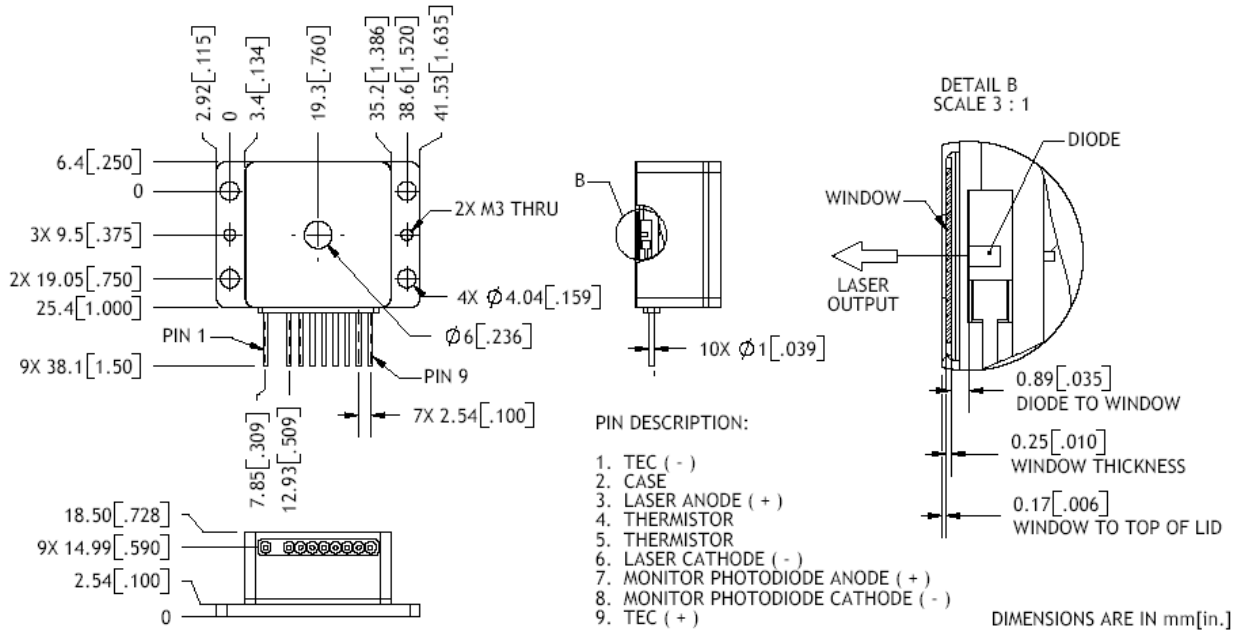
Typical Device Performance

Package		HHL	
Optical			
Wavelength	nm	639	665-690
Wavelength tolerance	nm	± 5	
CW output power	W	0.75	1.5
Emitter Size	µm	150	
Fast Axis Divergence	degrees	42	
Slow Axis Divergence	degrees	10	
Electrical			
Power conversion efficiency (typical)	%	20	25
Operating current (typical)	A	1.5	1.9
Operating voltage (typical)	V	2.2	2.1
Mechanical			
Storage temperature range ²	°C	-20 to +80	
Lead Soldering Temperature	°C	250°C (<5 sec)	
Thermal			
Operating temperature ²	°C	-20 to +30	
Thermo Electric Cooler			
Drive Current (typical)	A	1.7	
Drive Voltage (typical)	V	3.5	
Thermistor Resistance (25°C)	kΩ	10	
Monitor Photo Diode			
Sensitivity	µA/mW	1-10	
Capacitance	pF	6	
Breakdown Voltage	V	25	
Operating Voltage	V	10	

¹ Numerical aperture (NA) is the sine of the half-angle encircling 90% of the optical energy from the fiber.

² A non-condensing environment is required for storage and operation.

Package Dimensions



CFR Regulation

These components do not comply with the federal regulation (Title 21 CFR, Chapter 1, Subchapter J) as administered by the Center for Device and radiological Health. Purchaser acknowledges that their products must comply with these regulations before they can be sold to an end-use.



Notice

nLIGHT continually improves its products to provide our customers with outstanding quality and reliability. nLIGHT may make changes to specifications and product descriptions at any time, without notice. In addition, nLIGHT offers a limited warranty to ensure customer satisfaction. For complete details, please contact your nLIGHT sales representative.

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