

Infrared Laser Diode

ADL-80V03TL

6-2D-LD80-010_Rev.02

808nm 0.5W High Power Operation

Features

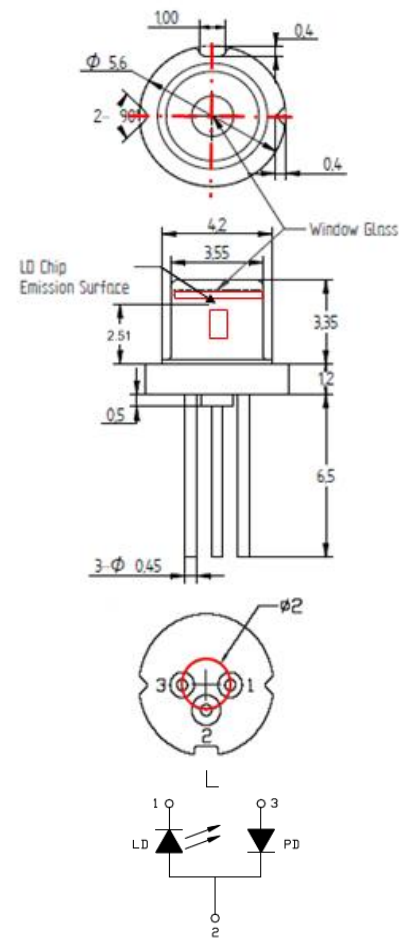
Highly reliable
Higher power

Applications

Pumping of solid-state lasers and fiber lasers
Industrial, measuring, scientific and medical systems
Applications in the printing industry
Defense and security

Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	CW	0.55	W
Reverse voltage (LD)	V_{RL}	-	2	V
Case temperature	T_C	-	-10~+50	°C
Storage temperature	T_S	-	-40~+85	°C



Electrical and optical characteristics ($T_c=25\text{ }^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	798	808	818	nm	$P_O=0.5W$
Threshold current	I_{th}	-	320	450	mA	
Operating current	I_{op}	-	800	1000	mA	
Operating voltage	V_{op}	-	1.9	2.5	V	
Differential efficiency	η	0.7	1.1	1.4	mW/mA	$P_O=0.4-0.5W$
Monitor current	I_m	0.5	-	3	mA	$P_O=0.5W$
Parallel divergence angle	$\theta_{//}$	-	7	12	deg.	
Perpendicular divergence angle	θ_{\perp}	30	35	40	deg.	

* Sufficient heat dissipation is required for CW operation.

● Precautions

- * Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- * Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- * Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
- * Observing visible or invisible laser beams with the human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- * No laser device should be used in any application or situation where life or property is at risk in event of device failure.
- * Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.

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