

Infrared Laser Diode

ADL-83Q21NY

830nm 2W High Power Operation

T6-2D-LD83-004_Rev.01

Features

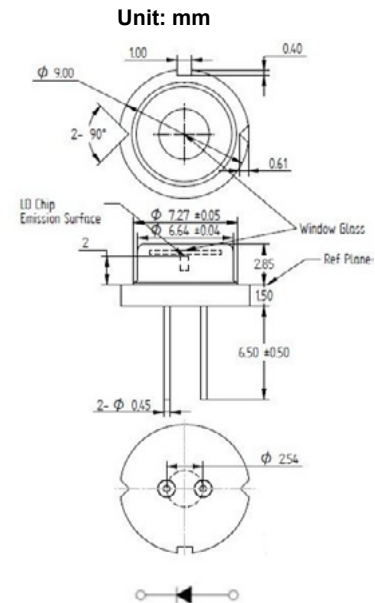
High reliable
High power

Applications

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	2.2	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	830	833	-	nm	$P_O=2W$
Threshold current	I_{th}	-	350	500	mA	
Operating current	I_{op}	-	2100	2700	mA	
Operating voltage	V_{op}	-	2.0	2.2	V	
Differential efficiency	η	0.90	1.15		mW/mA	$P_O=0.2-2.0W$
Parallel divergence angle	$\theta_{//}$	3	7	12	deg.	$P_O=2W$
Perpendicular divergence angle	$\theta_{\perp}$	32	38	43	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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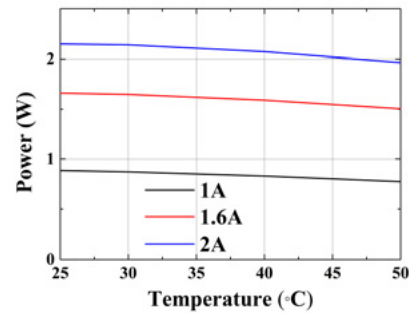
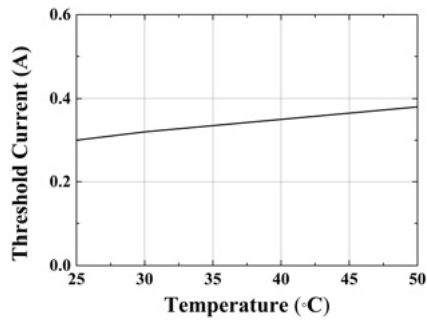
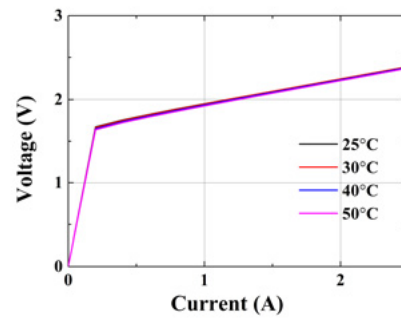
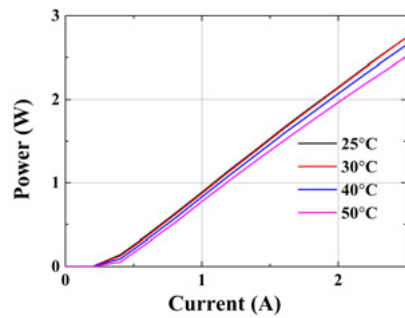
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