

# Infrared Laser Diode

# ADL-83Q21NY

## 830nm 2W High Power Operation

T6-2D-LD83-004\_Rev.01

### Features

High reliable  
High power

### Applications

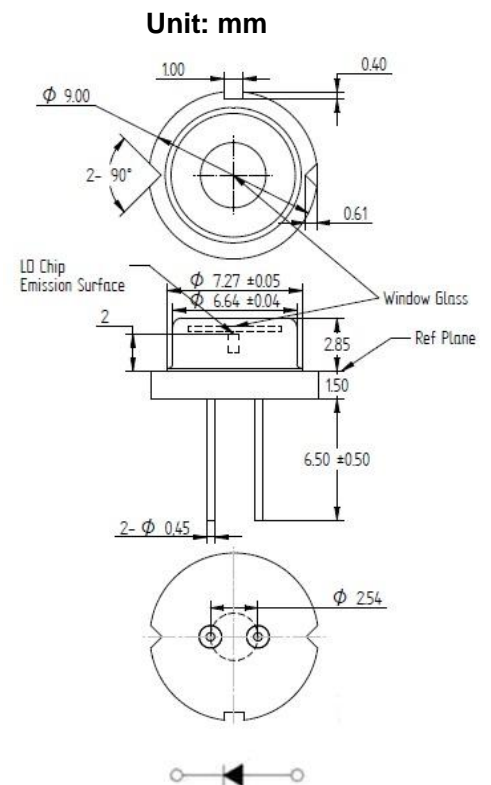
Industrial, measuring, scientific and medical systems

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	$\lambda$	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	$\eta$	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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**Arima**  
LASERS

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