

## Infrared Laser Diode

**ADL-80Q11TZ**

6-2D-LD80-005\_Rev.01

### 808nm 1W High Power Operation

#### Features

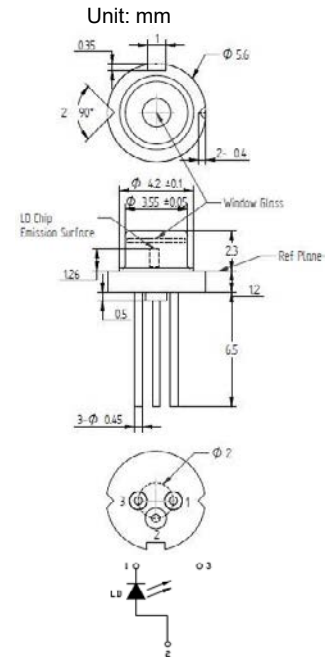
Highly reliable  
Higher power

#### 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	1.2	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	$\lambda$	798	808	818	nm	$P_o=1\text{W}$
Threshold current	$I_{th}$	-	320	450	mA	
Operating current	$I_{op}$	-	1200	1600	mA	
Operating voltage	$V_{op}$	-	1.9	2.5	V	
Differential efficiency	$\eta$	0.7	1.1	1.4	mW/mA	$P_o=0.4\text{-}1.2\text{W}$
Parallel divergence angle	$\theta_{//}$	-	7	12	deg.	$P_o=1\text{W}$
Perpendicular divergence angle	$\theta_{\perp}$	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.

*For reference only. Contents above are subject to change without notice.*

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