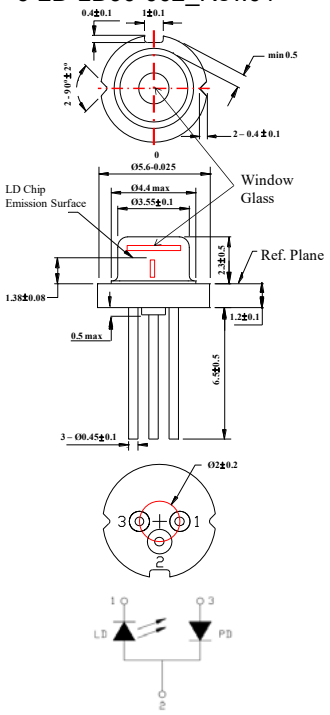
940nm Infrared Laser Diode

ADL-94Y01TL

6-2D-LD90-002_Rev.04

940nm 200mW High Power Operation



Features

High quality
Highly reliable
High performance in temperature characteristic

Applications

Fiber Lasers Pumping
Laser Ranging
3D Sensing Application

Absolute Maximum Ratings

Parameter	Symbol	Condition	Rating	Unit
Light Output Power	P_O	CW	220	mW
Reverse Voltage(LD)	V_{RL}	-	2	V
Case Temperature	TC	-	-10~60	℃
Storage Temperature	TS	-	-40~85	℃

Electrical and Optical Characteristics(Tc=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Peak Wavelength	λ	930	940	950	nm	Po=200mW
Threshold Current	I_{th}		50	70	mA	
Operating Current	I_{op}		300	340	mA	Po=200mW
Operating Voltage	V_{op}		1.9		V	Po=200mW
Differential efficiency	η	0.65	0.75	1.0	mW/mA	Po=100-200mW
Monitor current	I_m	0.50	1.3	2	mA	Po=200mW, V_{RD}=5V
Parallel divergence angle	θ//	4	7	13	deg.	Po=200mW
Perpendicular divergence angle	θ⊥	12	17	25	deg.	
Parallel FFP deviation angle	Δθ//	-3	0	3	deg	
Perpendicular FFP deviation angle	Δθ⊥	-3	0	3	deg	
Emission point accuracy	ΔxΔyΔz	-80	0	80	um	

* Sufficient heat dissipation is required for CW operation.

● Precautions
* Do not operate the device above maximum ratings even short period of time. 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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beyond borders

01/25 / V4 / MaH-IF / arima/940nm/adl-94y01tl-infrared-laser-diode

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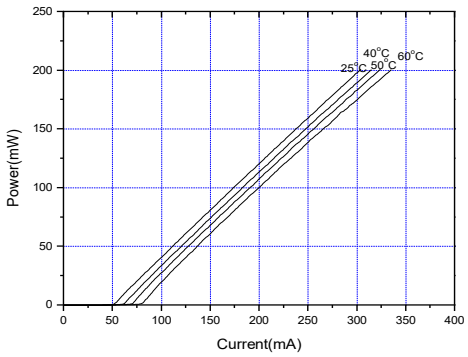

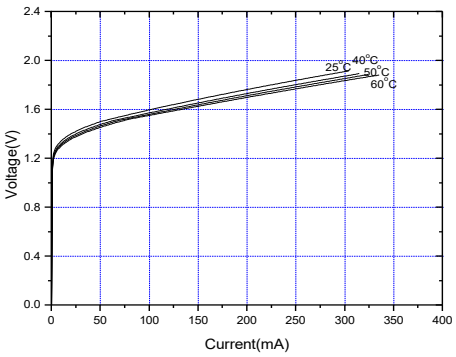

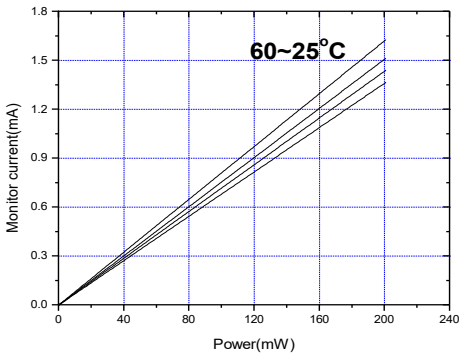

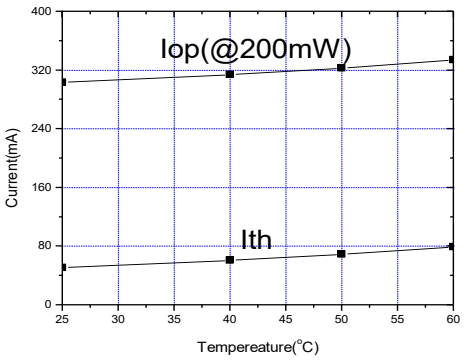

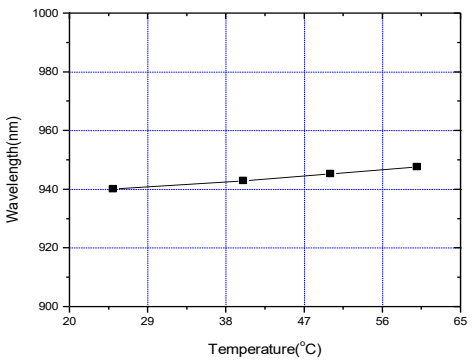

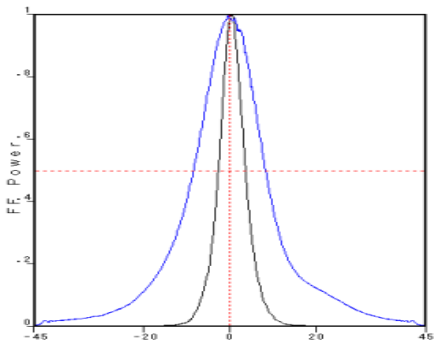

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