Infrared Laser Diode

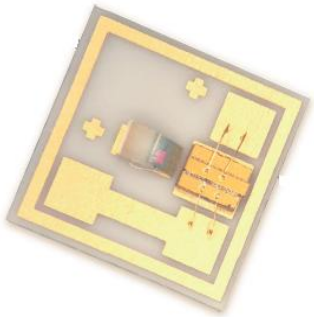
ADL-83Y51IY-F1

T6-2D-LD83-005_Rev.00

830nm 250mW

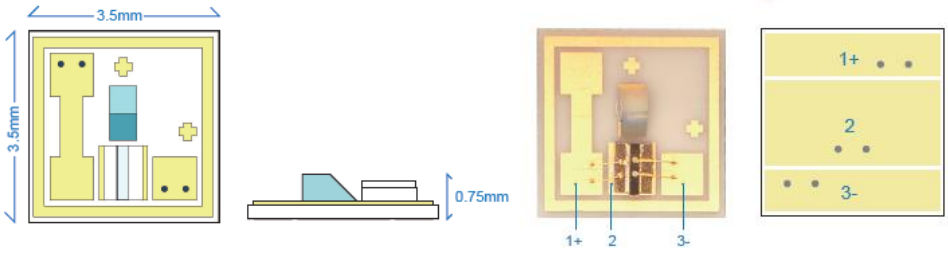
Features

High wavelength stability at different temperature
High power conversion efficiency
Open package



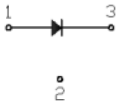
Applications

Moving sensor/Gesture
Photoelectric sensors
3D sensing
ToF applications
VR



Absolute Maximum Ratings

Parameter	Symbol	Condition	Rating	Unit
Light Output Power	P_O	CW	270	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	820	830	840	nm	Po=250mW
Threshold Current	I_{th}	-	68	100	mA	
Operating Current	I_{op}	-	308	350	mA	Po=250mW
Operating Voltage	V_{op}	-	1.9	2.4	V	Po=250mW
Differential Efficiency	η	-	1.0	-	mW/mA	Po=200-250mW
Parallel Divergence Angle	θ//	-	9	-	deg.	Po=250mW
Perpendicular Divergence Angle	θ⊥	-	17	-	deg.	

* Sufficient heat dissipation is required for CW operation.
* The characteristics was tested under cw condition.
* Divergence angle measurement was based on FWHM

● 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

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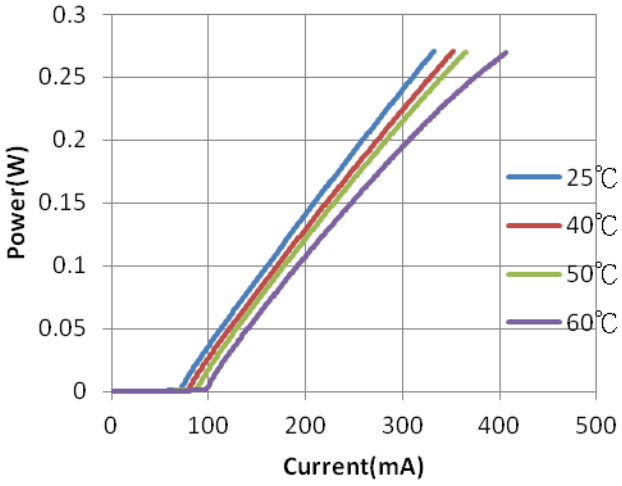

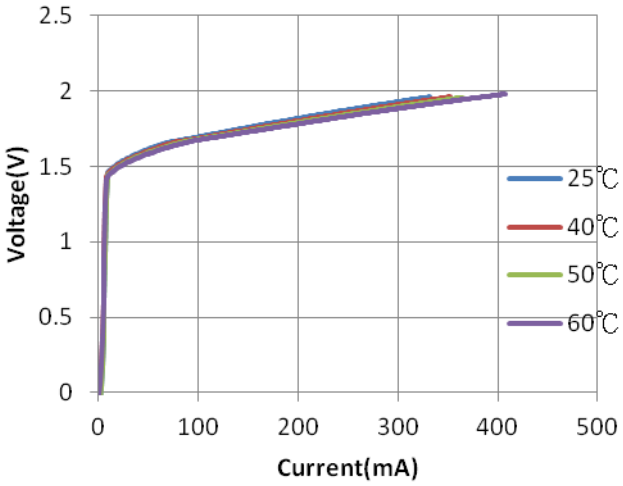

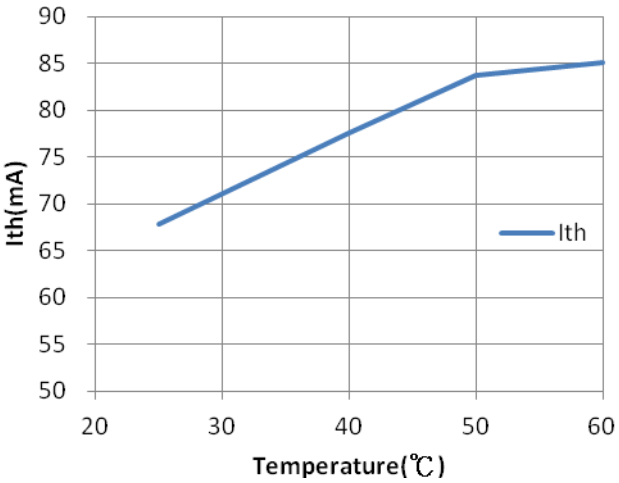

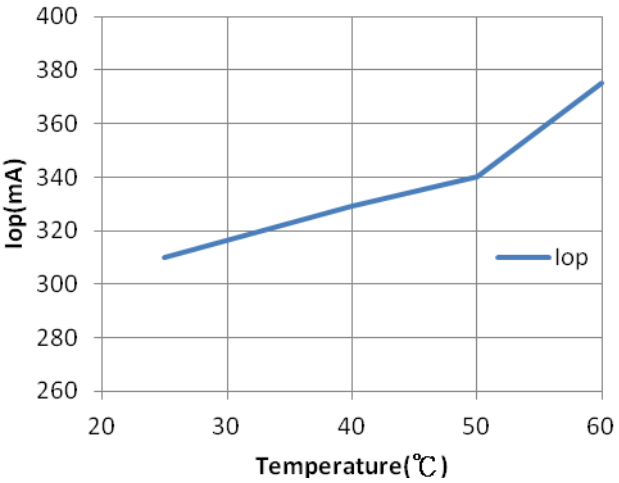

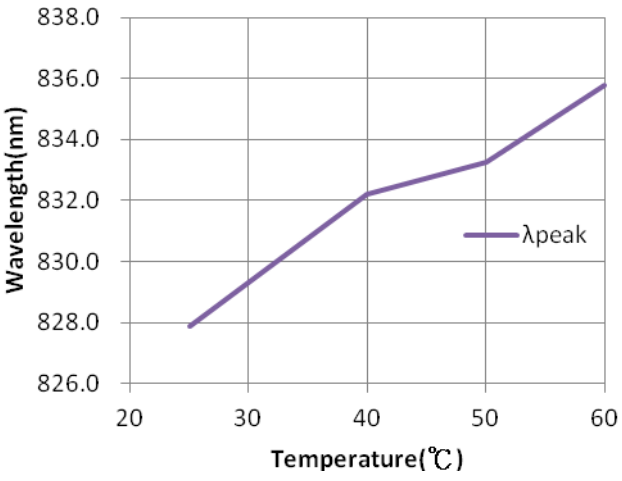

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