

Infrared Laser Diode

ADL-83Y51Y-F1

T6-2D-LD83-005_Rev.00

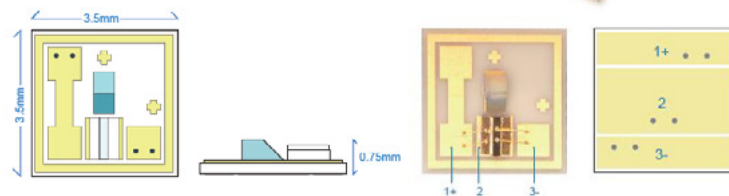
830nm 250mW

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	°C
Storage Temperature	TS	-	-40~85	°C



Electrical and Optical Characteristics(Tc=25°C)

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	$\theta_{//}$	-	9	-	deg.	Po=250mW
Perpendicular Divergence Angle	$\theta_{\perp}$	-	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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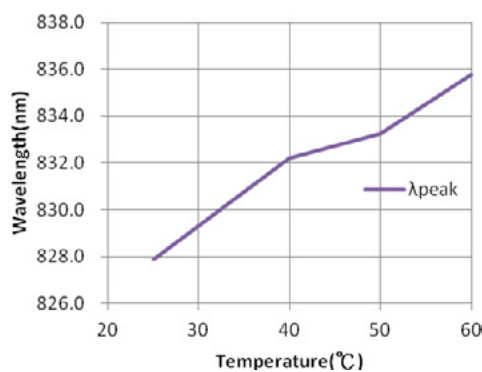
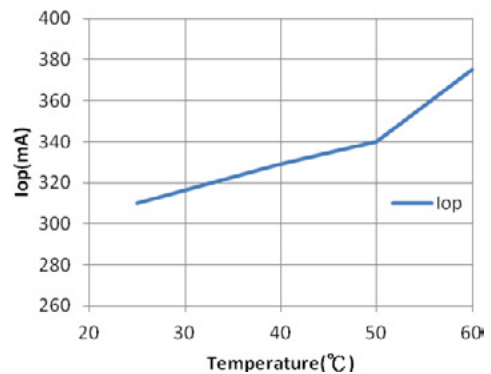
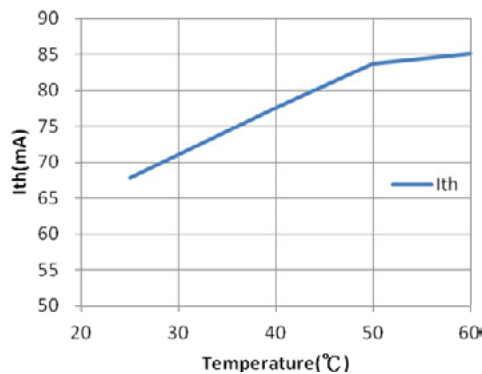
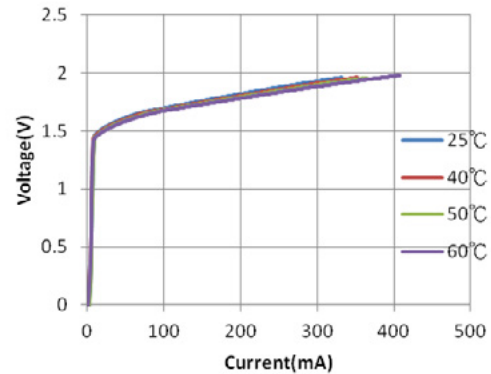
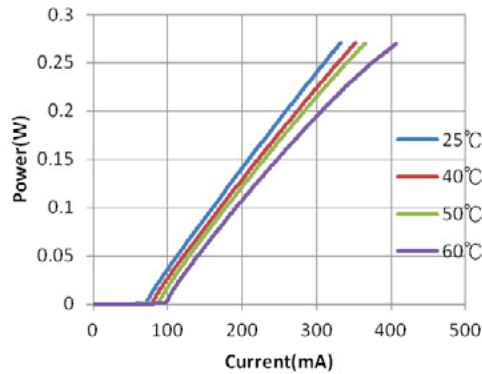
Arima
LASERS

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