

## Infrared Laser Diode

ADL-85Y51IY-F1

xx-xx-xxxx-xxx Rev.00

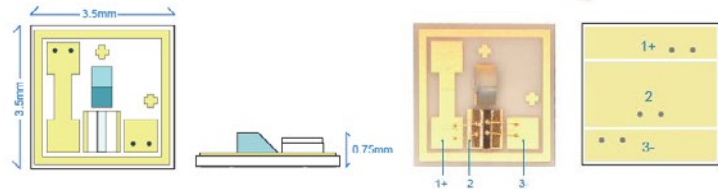
850nm 250mW

### Features

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

### Applications

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



### 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	$\lambda$	840	850	860	nm	Po=250mW
Threshold Current	$I_{th}$		61	90	mA	
Operating Current	$I_{op}$		310	360	mA	Po=250mW
Operating Voltage	$V_{op}$		1.9	2.4	V	Po=250mW
Differential Efficiency	$\eta$		1.00		mW/mA	Po=200-250mW
Wavelength Shift	$\Delta\lambda/\Delta T$		0.23		nm/°C	Po=250mW
Parallel Divergence Angle	$\theta_{//}$		8		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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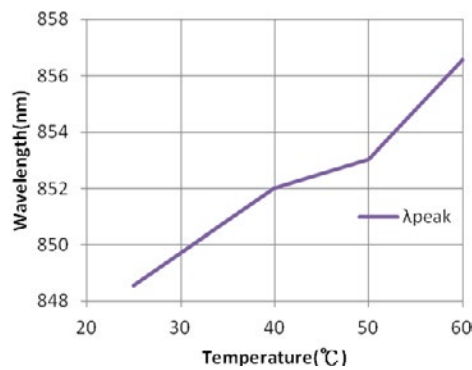
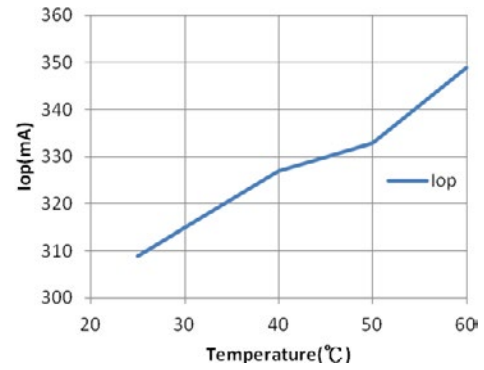
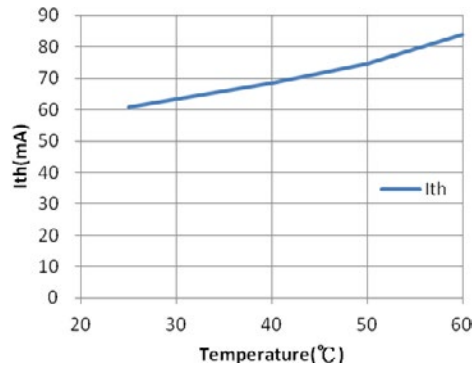
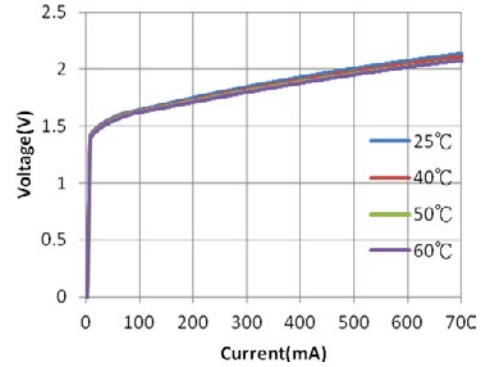
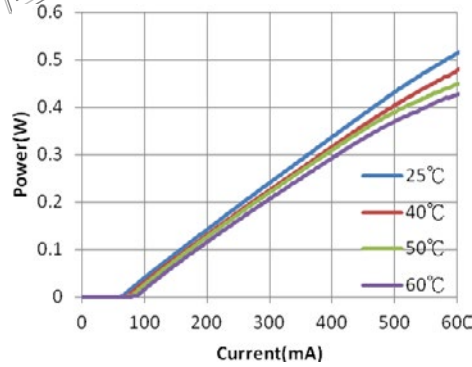
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TENTATIVE



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