

**ADL-63501TL**  
**635nm 50mW Laser Diode**  
**50°C Reliable Operation**



**Features**

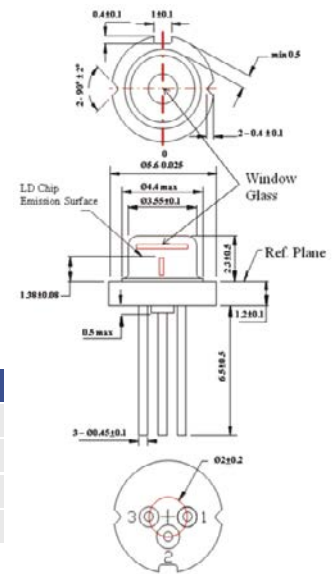
- Higher output power: 50mW CW
- Small package:  $\phi 5.6\text{mm}$
- TM mode
- Single Transverse/Longitudinal mode

**Applications**

- Construction tools
- High definition laser displays
- Medical applications

**Absolute maximum ratings**

Parameter	Symbol	Condition	Rating	Unit
Light output power	$P_o$	CW	50	mW
Reverse voltage (LD)	$V_{RL}$	-	2	V
Case temperature	TC	-	-10~+50	°C
Storage temperature	TS	-	-40~+85	°C



**Characteristics (Tc=25° C)**

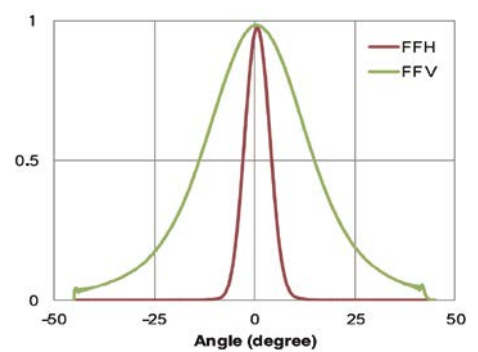
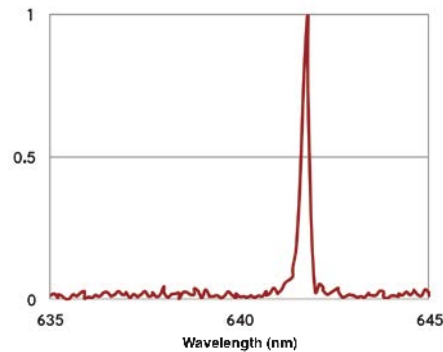
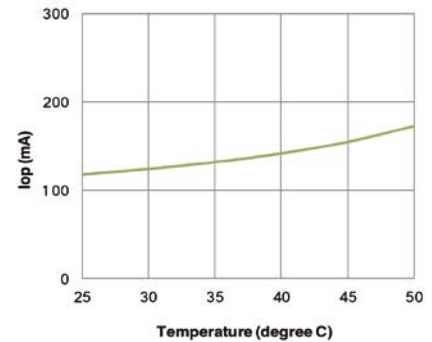
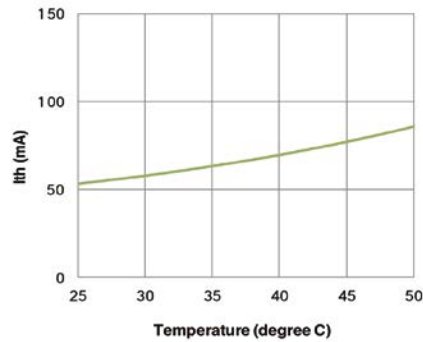
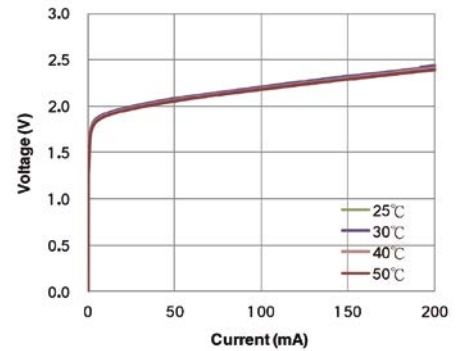
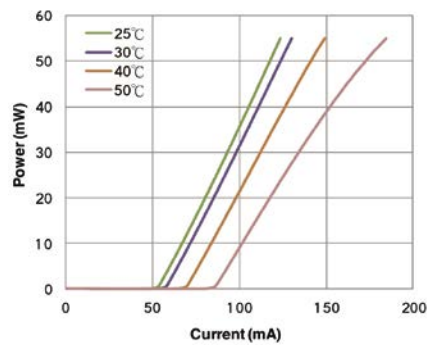
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	$\lambda$	630	640	645	nm	$P_o=50\text{mW}$
Threshold current	$I_{th}$	-	50	60	mA	
Operating current	$I_{op}$	-	120	160	mA	
Operation voltage	$V_{op}$	-	2.2	2.7	V	
Differential efficiency	$\eta$	0.5	0.7	1	mW/mA	$P_o=45\text{-}50\text{mW}$
Monitor current	$I_m$	0.1	0.27	0.5	mA	
Parallel divergence angle	$\theta_{//}$	5	8	12	deg.	$P_o=50\text{mW}$
Perpendicular divergence angle	$\theta_{\perp}$	25	30	35	deg.	
Parallel FFP deviation angle	$\Delta\theta_{//}$	-3	0	+3	deg.	
Perpendicular FFP deviation angle	$\Delta\theta_{\perp}$	-3	0	+3	deg.	
Emission point accuracy	$\Delta x\Delta y\Delta z$	-80	0	+80	um	

**ARIMA LASERS Corp.**

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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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