

AlGaInP | Visible Laser Diode

ADL-65078TL-1

★ **650nm 5mW 70 °C Reliable Operation**

Features

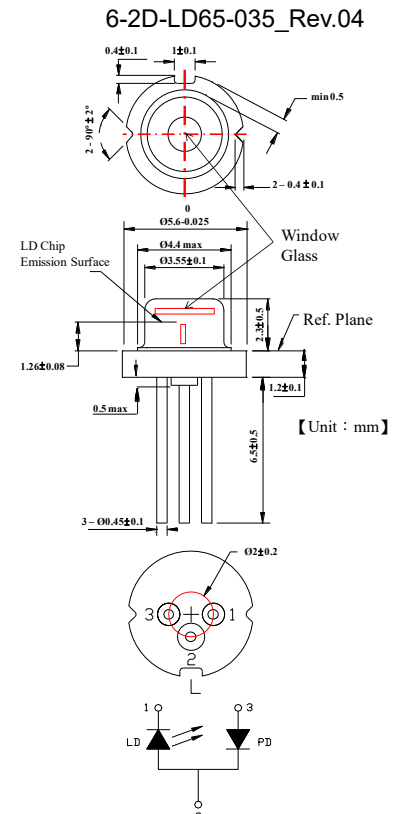
Excellent far field pattern
Higher power
High accuracy

Applications

Laser pointer
Laser leveler
Bar code scanner

Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	CW	7	mW
Reverse voltage (LD)	V_{RL}	—	2	V
Case temperature	T_C	—	-20 ~ +70	°C
Storage temperature	T_S	—	-40 ~ +85	°C



Electrical and optical characteristics ($T_C=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	645	655	660	nm	$P_O=5\text{mW}$
Threshold current	I_{th}	-	18	30	mA	
Operating current	I_{op}	-	30	42	mA	$P_O=5\text{mW}$
Operating voltage	V_{op}		2.2	2.5	V	$P_O=5\text{mW}$
Differential efficiency	η	0.2	0.45	0.6	mW/mA	$P_O=3-5\text{mW}$
Monitor current	I_m	0.1	0.22	0.4	mA	$P_O=5\text{mW}$
Parallel divergence angle	$\theta_{//}$	6	8	11	deg	$P_O=5\text{mW}$
Perpendicular divergence angle	$\theta_{\perp}$	24	28	34	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	

• Precautions

- Do not operate the device above maximum ratings. 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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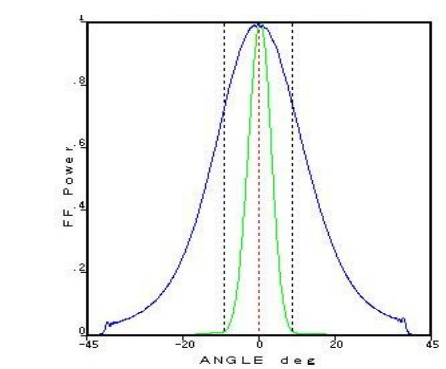
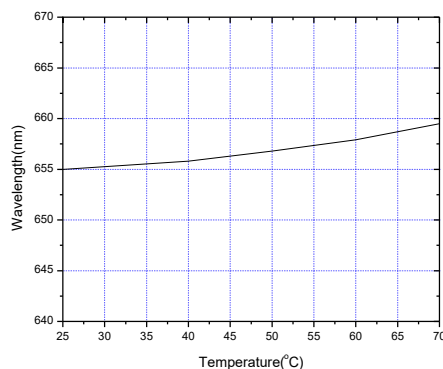
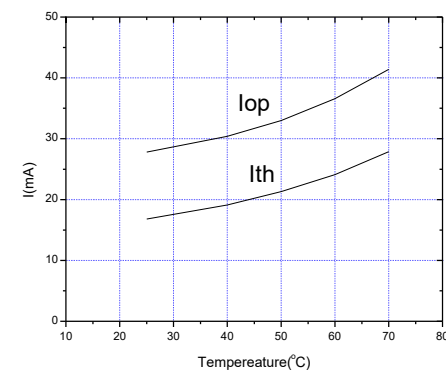
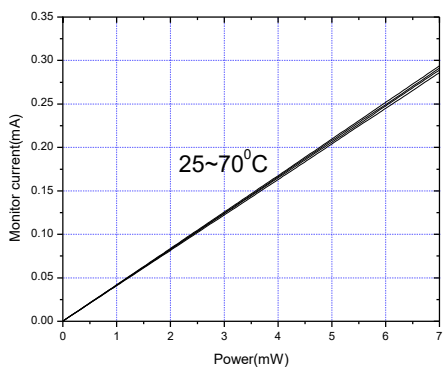
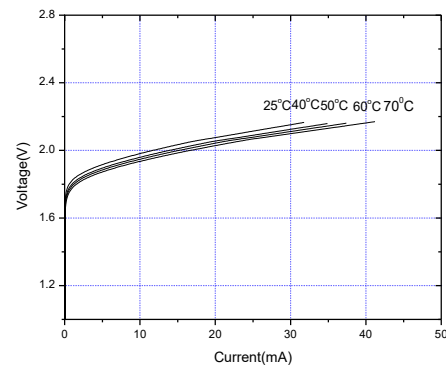
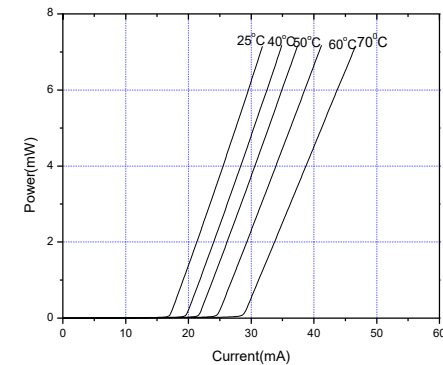
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LASERS

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6-2D-LD65-035_Rev.04

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