

AlGaAs Infrared Laser Diode

ADL-78251TL

6-2D-LD78-027_Rev.01

780nm 25mW 60°C Reliable Operation

Features

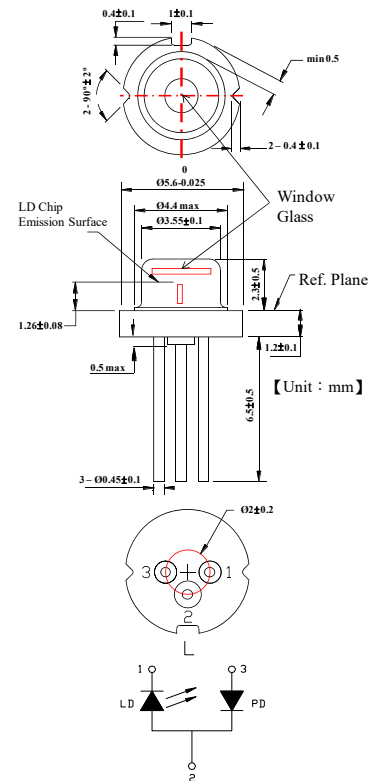
Low operating current
High efficiency
Better power budget for optical design

Applications

Laser printer light source

Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_o	CW	26	mW
Reverse voltage (LD)	V_{RL}	—	2	V
Case temperature	T_c	—	-10 ~ +60	°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	770	785	795	nm	$P_o=25\text{mW}$
Threshold current	I_{th}	—	25	30	mA	
Operating current	I_{op}	—	75	90	mA	$P_o=25\text{mW}$
Operating voltage	V_{op}	—	1.9	2.3	V	$P_o=25\text{mW}$
Differential efficiency	η	0.3	0.5	0.9	mW/mA	$P_o=20\text{-}25\text{mW}$
Monitor current	I_m	0.5	1.5	3.0	mA	$P_o=25\text{mW}$
Parallel divergence angle	$\theta_{ }$	8	10	12	deg.	$P_o=25\text{mW}$
Perpendicular divergence angle	$\theta_{\perp}$	25	29	32	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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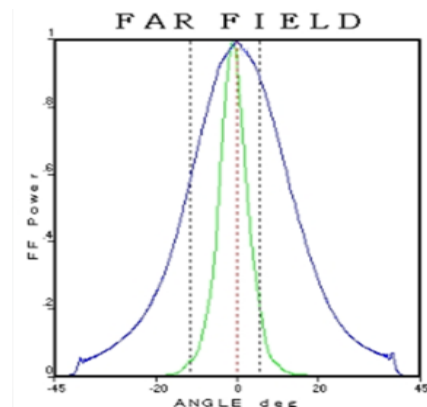
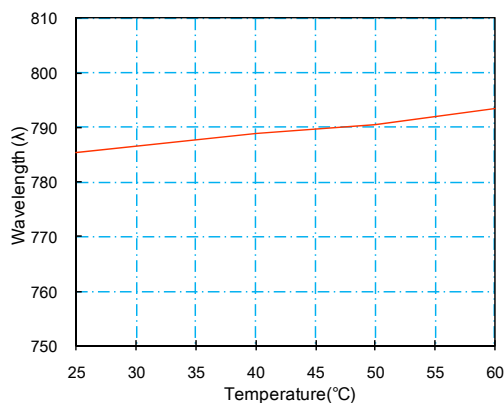
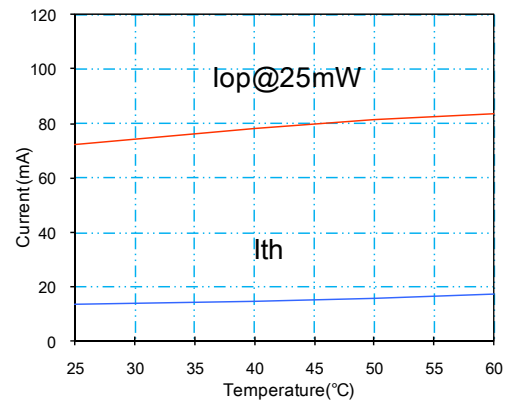
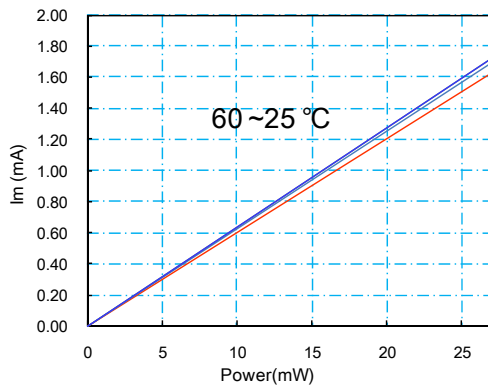
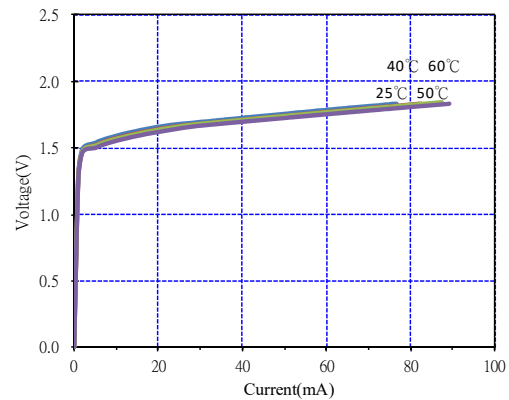
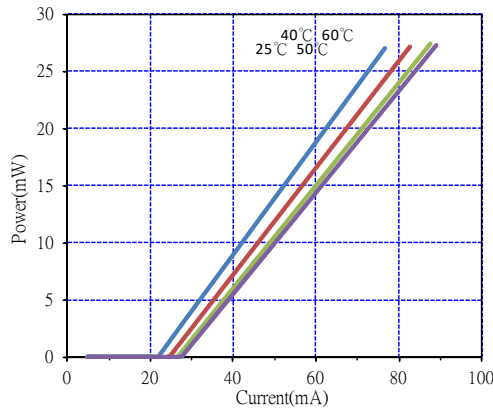


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