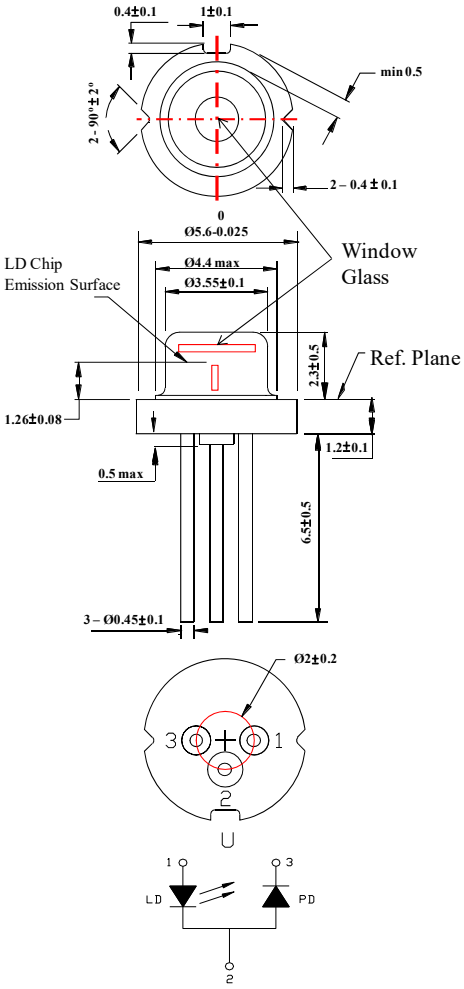
AlGaAs | Visible Laser Diode

ADL-78102TU

6-2D-LD78-029_Rev.00

780nm 10mW 70℃ Reliable Operation



Features

Low operating current
High efficiency
Better power budget for optical design

Applications

Industrial Tools

Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_o	CW	12	mW
Case temperature	T_C	-	-10 ~ +70	℃
Storage temperature	T_S	-	-40 ~ +85	℃

Electrical and optical characteristics (T_c=25 ºC)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	770	780	790	nm	P_o=10 mW
Threshold current	I_{th}	—	14	24	mA	
Operating current	I_{op}	—	25	38	mA	P_o=10 mW
Operating voltage	V_{op}	—	1.7	2.2	V	P_o=10 mW
Differential efficiency	η	0.4	0.8	1.2	mW/mA	P_o=7-10 mW
Monitor current	I_m	0.1	0.3	1	mA	P_o=10mW
Parallel divergence angle	$\theta_{//}$	7	11	18	deg.	P_o=10 mW
Perpendicular divergence angle	$\theta_{\perp}$	23	27	32	deg.	
Parallel FFP deviation angle	$\Delta\theta_{//}$	-2	0	+2	deg.	
Perpendicular FFP deviation angle	$\Delta\theta_{\perp}$	-3	0	+3	deg.	
Emission point accuracy	ΔxΔyΔz	-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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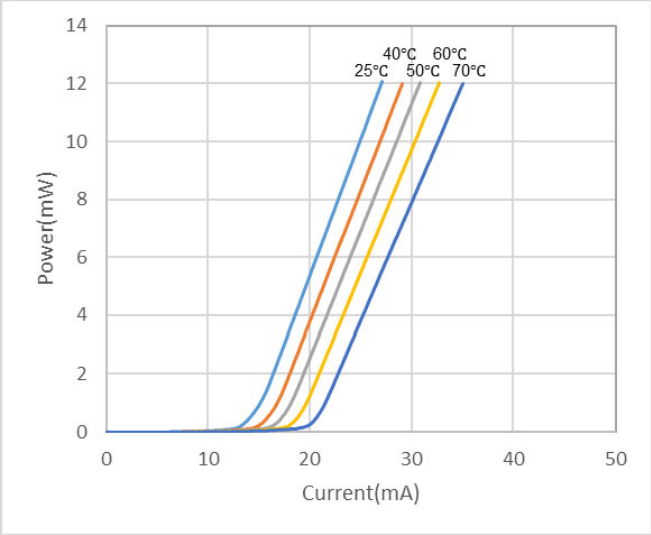

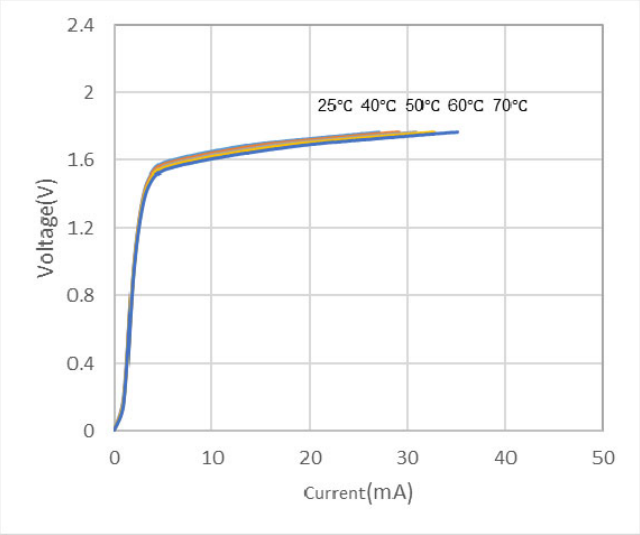

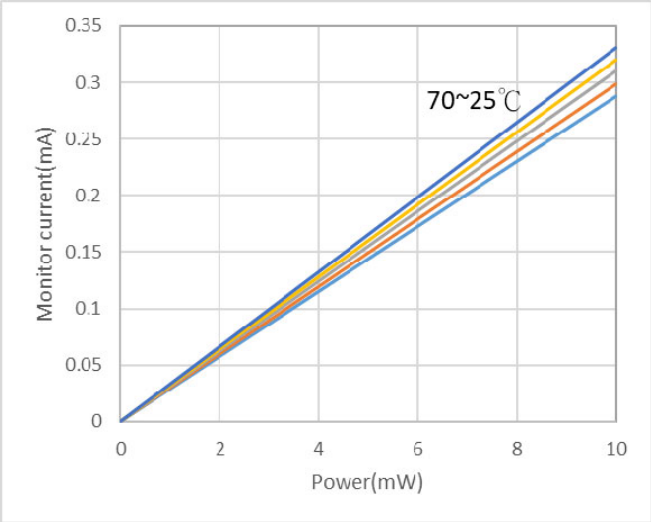

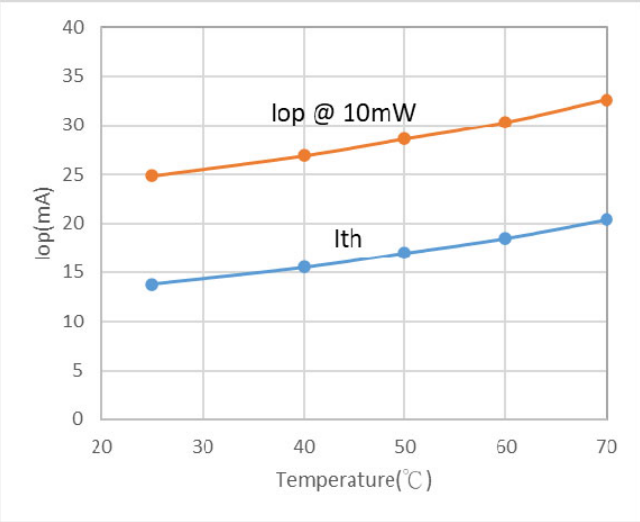

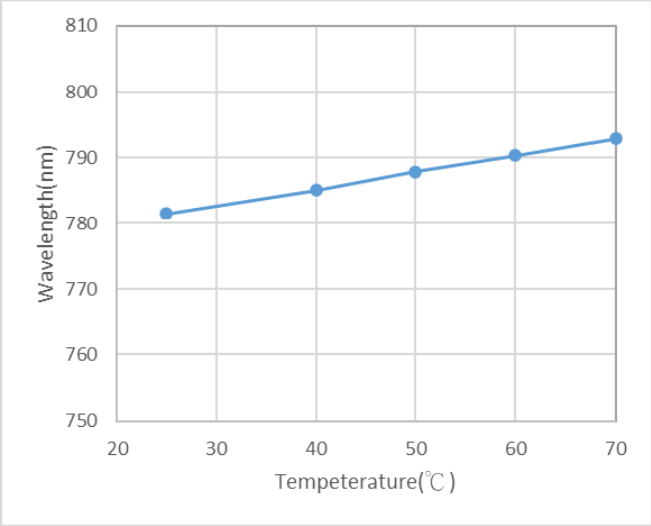

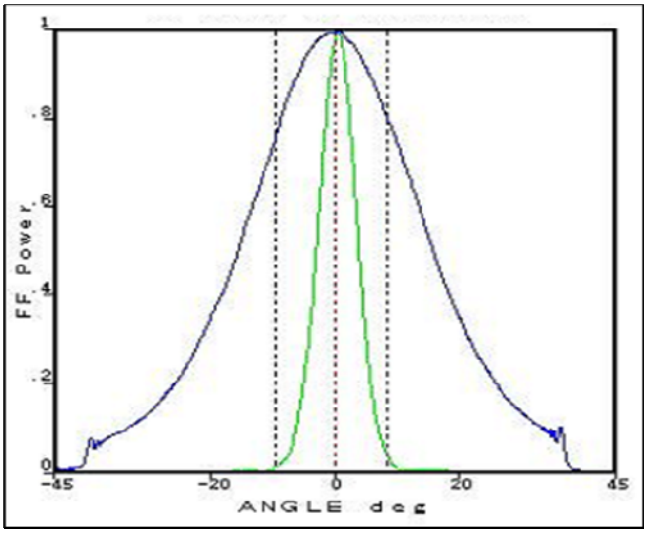

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