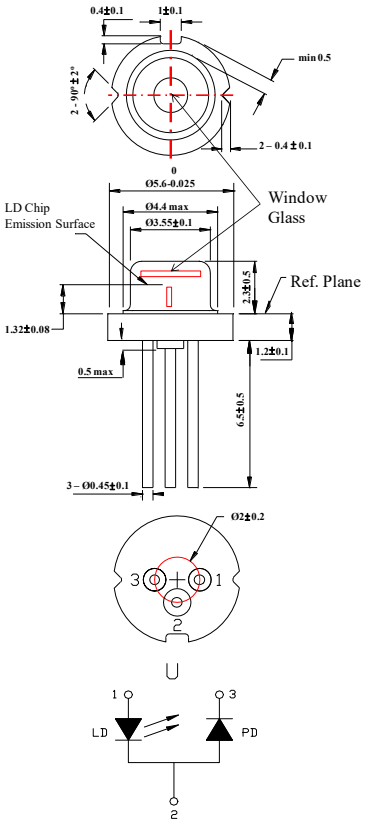
AlGaInP | Visible Laser Diode

ADL-6305ETU

6-2D-LD63-125 Rev.00

635nm 5mW 40°C Reliable Operation



Features

1. Low Iop
2. High precision assembly
3. High visibility

Applications

1. General purpose red laser light source
2. Industrial laser markers / measuring instruments
3. Laser pointers / levelers

Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	CW	7	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Reverse voltage (PD)	V_{RD}	-	30	V
Forward current (PD)	I_{FD}	-	10	mA
Case temperature	T_C	-	-10~+40	°C
Storage temperature	T_S	-	-40~+85	°C

Electrical and optical characteristics (T_c=25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	630	639	645	nm	P_o=5 mW
Threshold current	I_{th}	-	19	23	mA	
Operating current	I_{op}	-	26	30	mA	P_o=5 mW
Operating voltage	V_{op}	-	2.15	2.3	V	P_o=5 mW
Differential efficiency	η	0.4	0.7	1.0	mW/mA	P_o=3-5mW
Monitor current	I_m	0.1	0.17	0.3	mA	P_o=5mW, V_{RD}=5V
Parallel divergence angle	$\theta_{//}$	4	7	10	deg.	P_o=5 mW
Perpendicular divergence angle	$\theta_{\perp}$	23	29	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	Δ xΔyΔz	-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

For reference only. Contents above are subject to change without notice.

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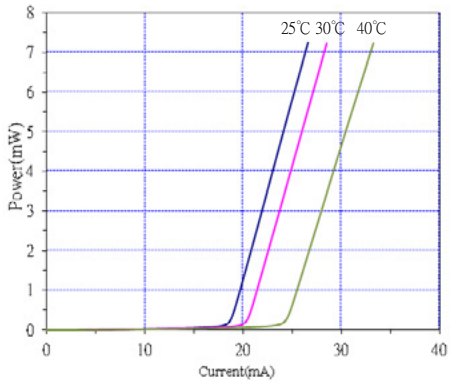

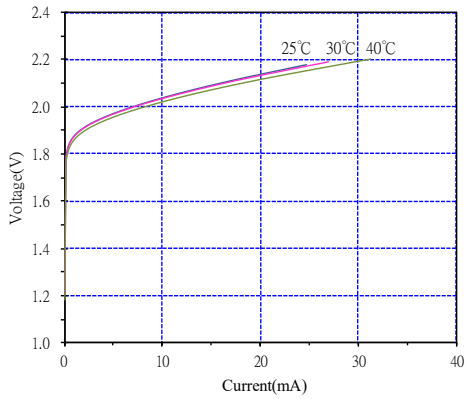

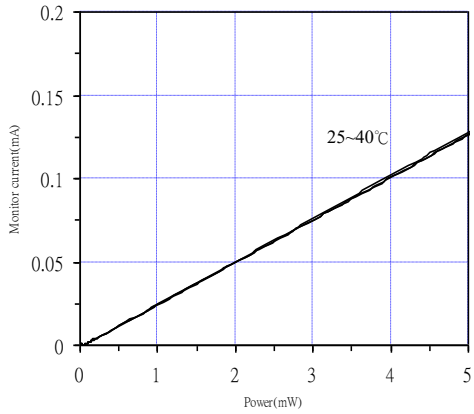

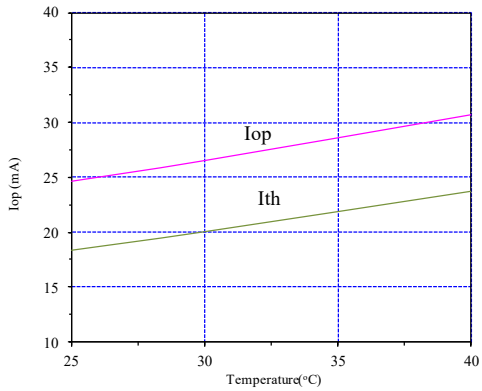

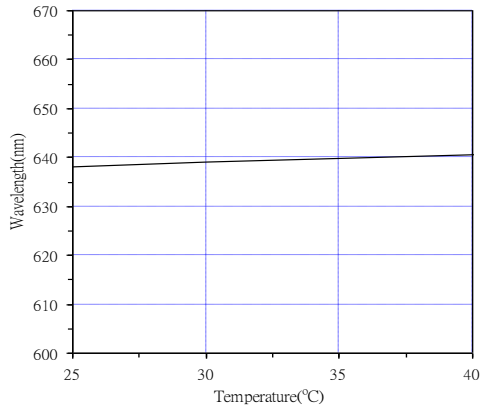

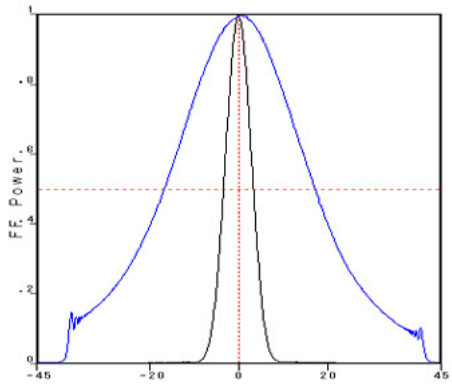

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