

AlGaInP Visible Laser Diode

ADL-63Z01TZ
xx-xx-xxxx-xxx Rev.00
638nm 100mW

Features

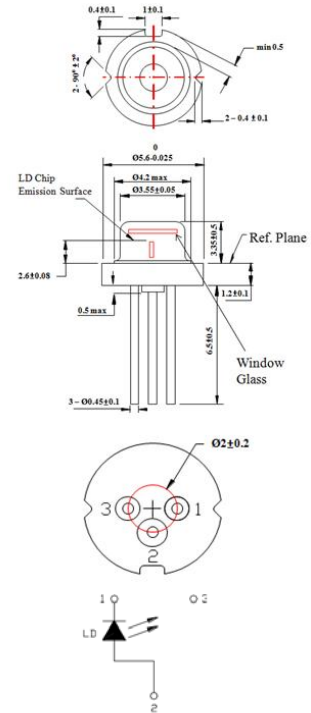
Small size
Single transverse mode
High performance in temperature characteristic

Applications

Laser projection
Medical therapy

Absolute Maximum Ratings

Parameter	Symbol	Condition	Rating	Unit
Light Output Power	P_O	CW	100	mW
Reverse Voltage(LD)	V_{RL}	-	2	V
Operation Temperature	TC	-	-10~40	°C
Storage Temperature	TS	-	-40~85	°C



Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Peak Wavelength	λ	-	638	-	nm	$P_o=100mW$
Threshold Current	I_{th}	-	40	-	mA	
Operating Current	I_{op}	-	145	-	mA	$P_o=100mW$
Operating Voltage	V_{op}	-	2.6	-	V	$P_o=100mW$
Differential efficiency	η	-	1.0	-	mW/mA	$P_o=5\sim 100mW$
Parallel divergence angle	$\theta_{//}$	-	8	-	deg.	$P_o=100mW$
Perpendicular divergence angle	θ_{\perp}	-	20	-	deg.	

*Sufficient heat dissipation is required for CW operation.

● Precautions

- * Do not operate the device above maximum ratings even short period of time. 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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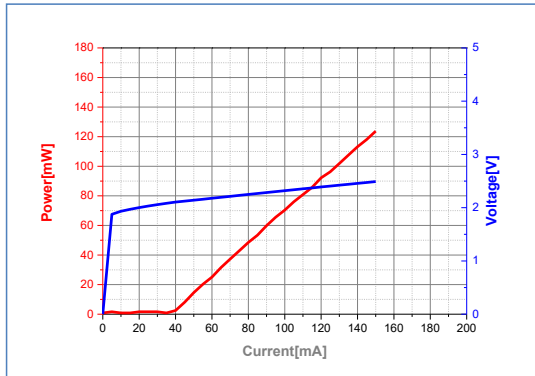
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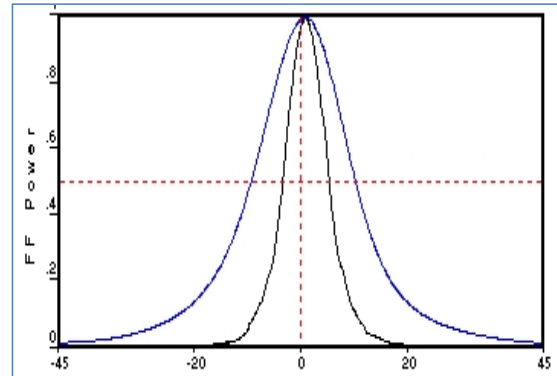
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TENTATIVE

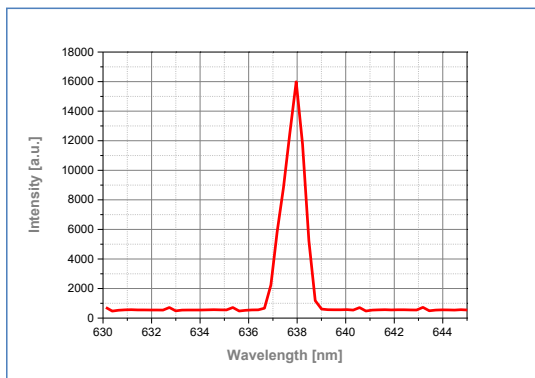
LIV Curve



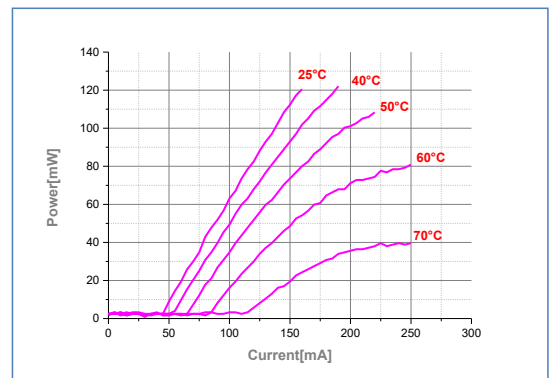
Far-field pattern



Wavelength Plot



Temperature difference test



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