



AlGaInP Visible Laser Diode

ADL-63201TL

DATE : 2005/10/18 Ver 1.0

★ 635nm 20mW 40°C Reliable Operation

• Features

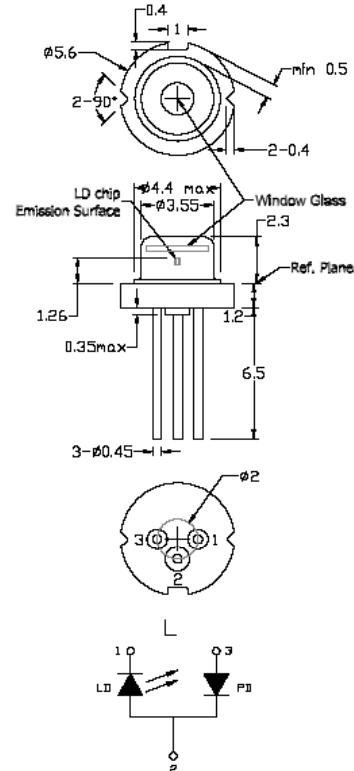
1. High visibility
2. MTTF > 3000hrs
3. Small perpendicular divergence angle

• Applications

1. Industrial laser markers
2. Survey and engineering instruments
3. High visibility LD display

• Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	CW	22	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 ($T_c=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	630	636	642	nm	$P_O=20\text{mW}$
Threshold current	I_{th}	-	60	70	mA	
Operating current	I_{op}	-	87	105	mA	$P_O=20\text{mW}$
Operating voltage	V_{op}	-	2.2	2.7	V	$P_O=20\text{mW}$
Differential efficiency	η	0.30	0.50	0.80	mW/mA	$P_O=13\text{-}18\text{mW}$
Monitor current	I_m	0.03	0.08	0.5	mA	$P_O=20\text{mW}$, $V_{RD}=5\text{V}$
Parallel divergence angle	θ_{\parallel}	6	7	10	deg	$P_O=20\text{mW}$
Perpendicular divergence angle	θ_{\perp}	28	33	36	deg	
Parallel FFP deviation angle	$\Delta\theta_{\parallel}$	-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 device.

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