

AIGaAs Infrared Laser Diode

ADL-78901SX

6-2D-LD78-006 Rev.01

★780nm, 90mW Reliable Operation

200mW High Power Pulse Reliable Operation

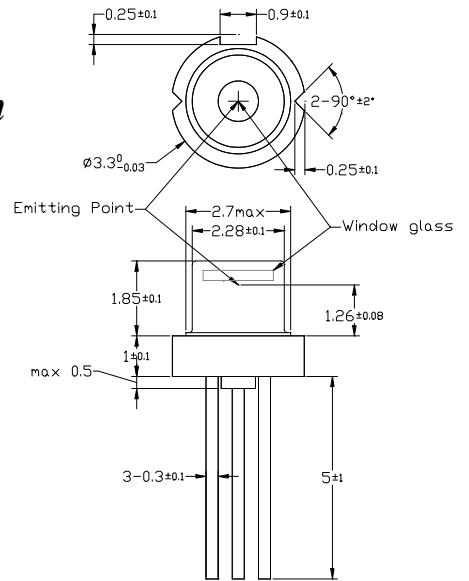
φ3.3mm Mini Package!

•Features

1. Smallest package
2. Small aspect ratio
3. High COD level

•Applications

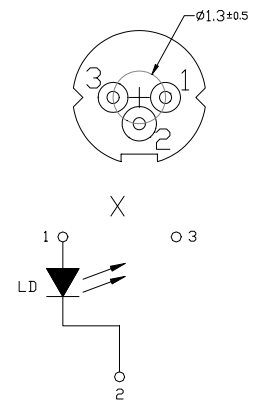
1. Virtual keyboard
2. Super slim 40X CD-R/RW OPU



•Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_o	CW	100	mW
	P_{op}	Pulsed*	220	
Reverse voltage(LD)	V_{RL}	-	2	V
Case temperature	T_C	-	-10~+70	°C
Storage temperature	T_S	-	-40~+85	°C

* Pulse width 0.5us, duty cycle 50%



•Electrical and optical characteristics ($T_c=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions (CW)
Peak wavelength	λ	775	785	795	nm	$P_o=90\text{mW}$
Threshold current	I_{th}	25	35	55	mA	
Operating current	I_{op}	90	115	160	mA	
Operating voltage	V_{op}	1.5	2	2.2	V	$P_o=80-90\text{mW}$
Differential efficiency	η	0.8	1.1	1.3	mW/mA	
Parallel divergence angle	$\theta_{ }$	7.5	9	10	deg	
Perpendicular divergence angle	θ_{\perp}	15	17	19	deg	$P_o=90\text{mW}$
Parallel FFP deviation angle	$\Delta\theta_{ }$	-2	0	+2	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

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

