

# AlGaInP | Visible Laser Diode

## ADL-65075TU-1

### 650nm 7mW 70°C Reliable Operation

#### Features

High Output Power : 7mW CW  
 Small Package :  $\Phi 5.6\text{mm}$   
 TE mode  
 Single Transverse/Longitudinal Mode

#### Applications

Construction Tools  
 High Definition Laser Displays  
 Medical Applications

#### Absolute maximum ratings

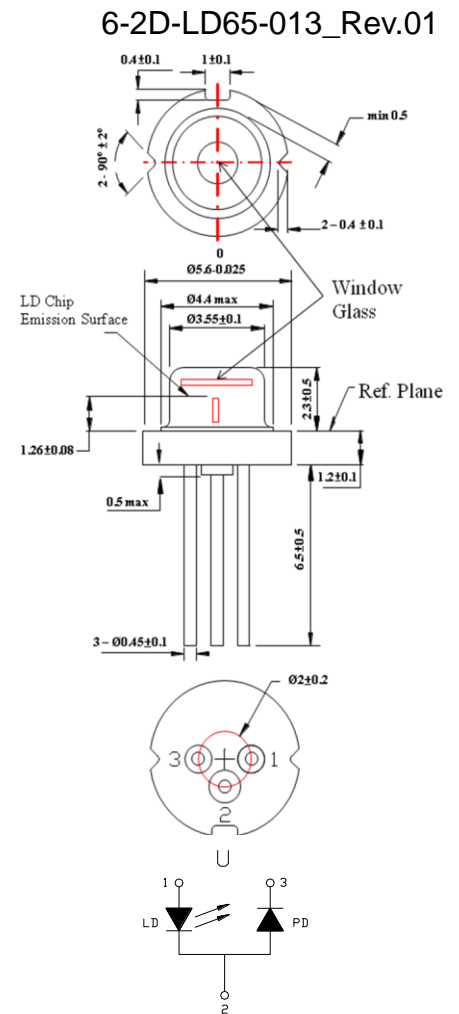
Parameter	Symbol	Condition	Rating	Unit
Light output power	$P_O$	CW	10	mW
Reverse voltage (LD)	$V_{RL}$	-	2	V
Reverse voltage (PD)	$V_{RD}$	-	30	V
Forward current (PD)	$I_{FD}$	-	10	mA
Case temperature	$T_C$	-	-20~+70	$^{\circ}\text{C}$
Storage temperature	$T_S$	-	-40~+85	$^{\circ}\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	$\lambda$	645	655	660	nm	$P_O=7\text{ mW}$
Threshold current	$I_{th}$	-	18	25	mA	
Operating current	$I_{op}$	-	26	30	mA	$P_O=7\text{ mW}$
Operating voltage	$V_{op}$	-	2.2	2.5	V	$P_O=7\text{ mW}$
Differential efficiency	$\eta$	0.7	1.0	1.2	mW/mA	$P_O=3\text{-}5\text{mW}$
Monitor current	$I_m$	0.1	0.13	0.2	mA	$P_O=7\text{mW}, V_{RD}=5\text{V}$
Parallel divergence angle	$\theta_{//}$	6	9	12	deg.	$P_O=7\text{ mW}$
Perpendicular divergence angle	$\theta_{\perp}$	25	28	32	deg.	
Parallel FFP deviation angle	$\Delta\theta_{//}$	-2	0	+2	deg.	
Perpendicular FFP deviation angle	$\Delta\theta_{\perp}$	-2	0	+2	deg.	
Emission point accuracy	$\Delta x\Delta y\Delta z$	-80	0	+80	$\mu\text{m}$	

#### • 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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