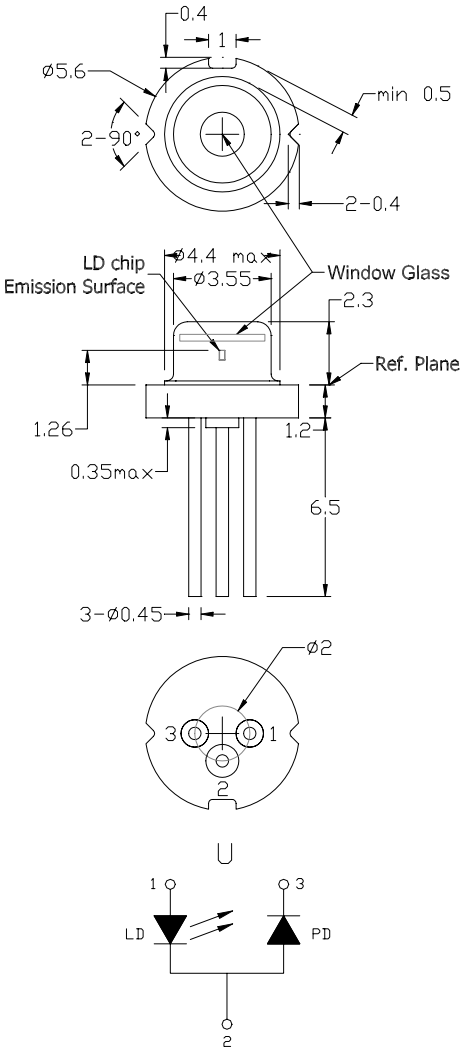
ADL-65078TU-1

AlGaInP Visible Laser Diode

LASER COMPONENTS

6-2D-LD65-001_Rev.01

★650nm 5mW 70 °C Reliable Operation!



- **Features**
  1. Excellent far field pattern
  2. Higher power
  3. High accuracy

- **Applications**
  1. Laser pointer
  2. Laser leveler
  3. Bar code scanner

- **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	-	-20~+70	°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	645	655	660	nm	P_o=5mW
Threshold current	I_{th}	-	18	30	mA	
Operating current	I_{op}	-	30	42	mA	P_o=5mW
Operating voltage	V_{op}		2.2	2.5	V	P_o=5mW
Differential efficiency	η	0.2	0.45	0.6	mW/mA	P_o=3-5mW
Monitor current	I_m	0.1	0.22	0.4	mA	P_o=5mW, V_{RD}=5V
Parallel divergence angle	$\theta_{//}$	7	8	9.5	deg	P_o=5mW
Perpendicular divergence angle	$\theta_{\perp}$	24	28	34	deg	
Parallel FFP deviation angle	$\Delta\theta_{//}$	-3	0	+3	deg	
Perpendicular FFP deviation angle	$\Delta\theta_{\perp}$	-2	0	+2	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.

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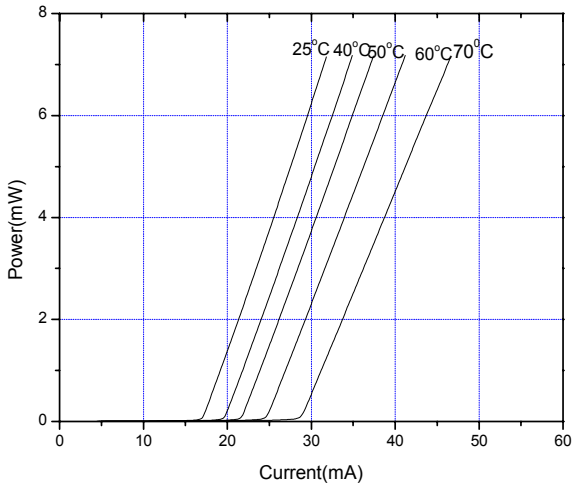
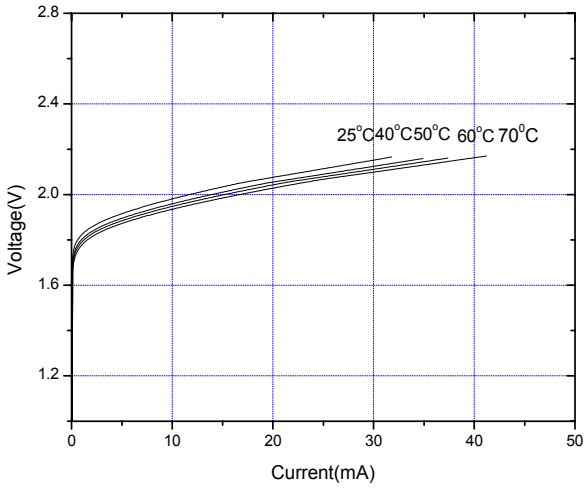
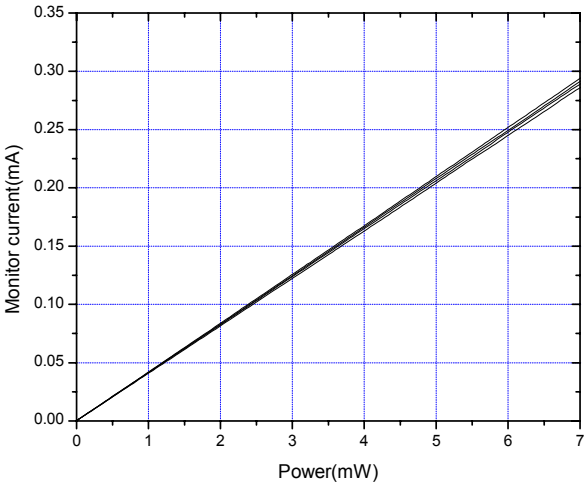
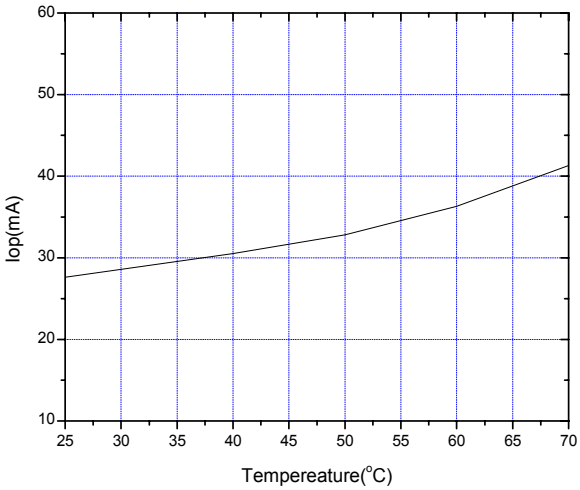
Arima LASERS

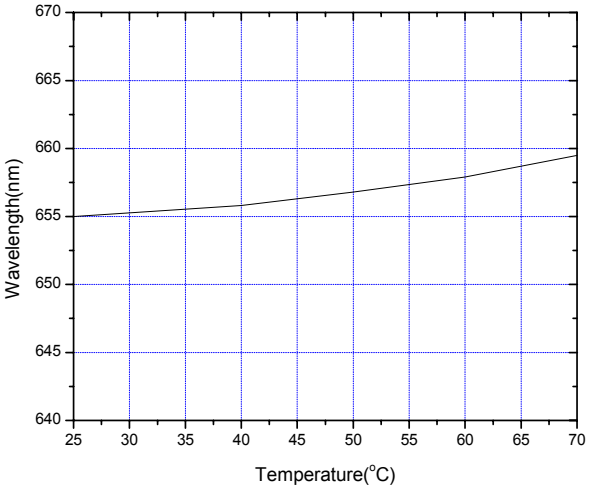
Germany and other countries: LASER COMPONENTS GmbH, Phone: +49 8142 2864 0, Fax: +49 8142 2864 11, info@lasercomponents.com
USA: LASER COMPONENTS IG, Inc., Phone: +1 603 821 7040, Fax: +1 603 821 7041, info@laser-components.com
Great Britain: LASER COMPONENTS (UK) Ltd., Phone: +44 1245 491 499, Fax: +44 1245 491 801, info@lasercomponents.co.uk
France: LASER COMPONENTS S.A.S., Phone: +33 1 3959 5225, Fax: +33 1 3959 5350, info@lasercomponents.fr

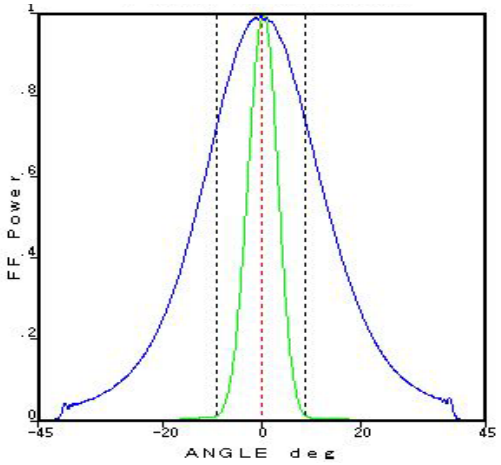












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