635nm 700mW 30°C Laser Diode in TO-5 ϕ9.0mm Package

Part No. LD635E700D13

FEATURES

- 635nm 700mW laser diode
- Package: TO-5 (dia. 9.0mm)
- High power
- Higher brightness
- Long lifetime

APPLICATIONS

- Laser display
- PDT
- Biochemistry
- Military
- Medical/Life and health science
- Illumination

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Rating	Unit
Optical output power	P_O	800	mW
Reverse voltage (LD)	V_{RL}	2	V
Operating temperature	T_{opr}	-10 to +30	°C
Storage temperature	T_{stg}	-40 to +85	°C

ELECTRICAL AND OPTICAL CHARACTERISTICS (T_C = 25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	628	638	648	nm	P_O = 700mW
Emitter size		-	50	-	um	
Polarization			TM			
Threshold current	I_{th}	-	500	600	mA	
Operating current	I_{op}	-	1400	1600	mA	P_O = 700mW
Operating voltage	V_{op}	-	2.5	3.0	V	P_O = 700mW
Slope efficiency	η	-	0.85	-	mW/mA	P_O = 20-200mW
Parallel divergence angle	$\Theta_{//}$	-	7	-	deg	P_O = 700mW
Perpendicular divergence angle	$\Theta_{\perp}$	-	22	-	deg	P_O = 700mW

*Sufficient heat dissipation is required for CW operation.

Lasermate Group, Inc.
19608 Camino De Rosa, Walnut, CA 91789, USA
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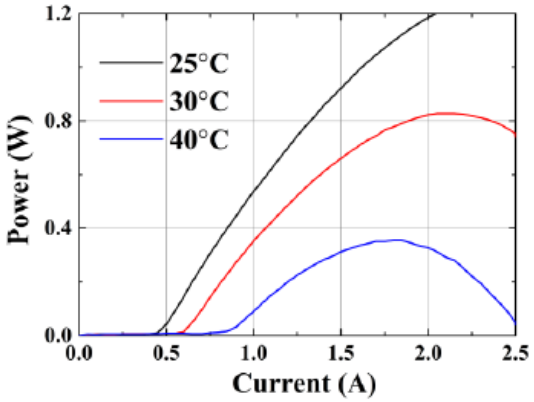
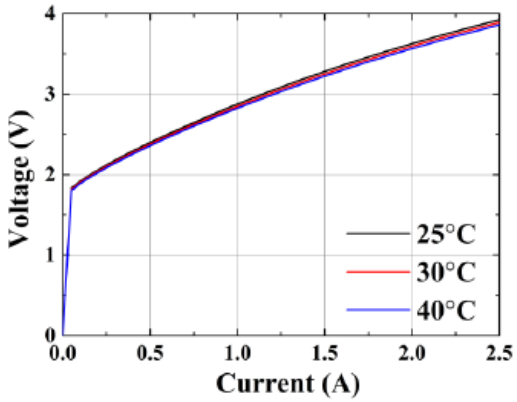
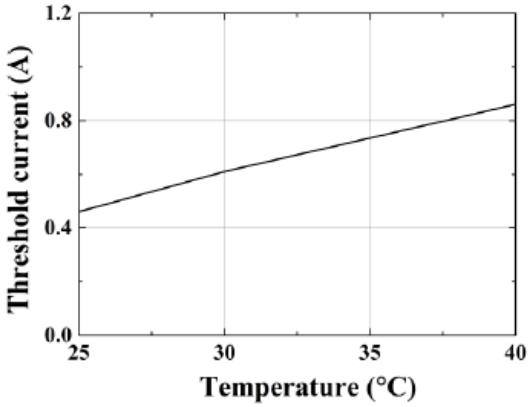
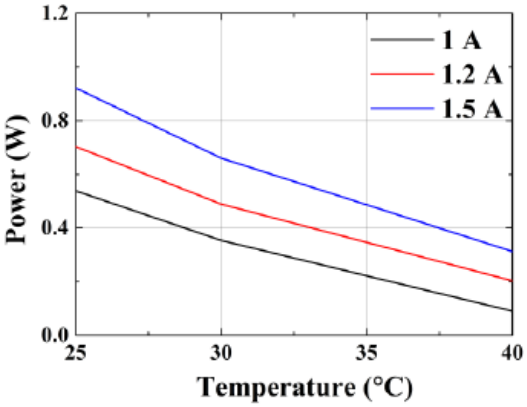
TYPICAL CHARACTERISTICS

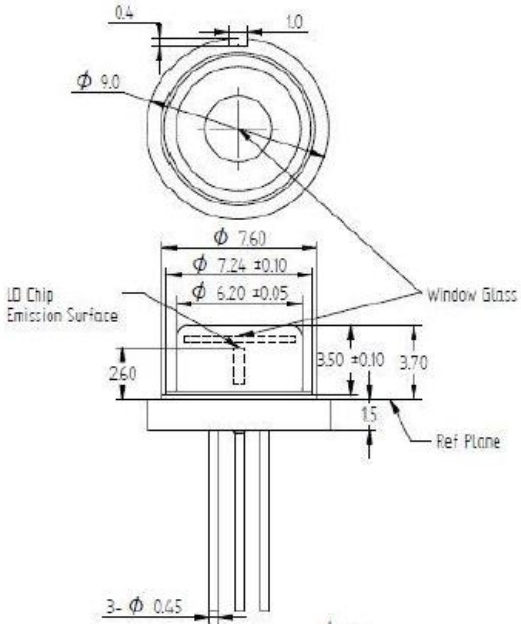


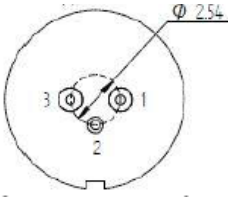






MECHANICAL OUTLINE (unit: mm)





Pin Configuration

*Other pin configurations may be available upon request.

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ADDITIONAL NOTES

- 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 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 the 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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