

808nm 7000mW 50°C Pulsed Laser Diode in TO-56 ϕ 5.6mm Package

Part No. LDP808A7WC15

FEATURES

- 808nm 7W (ms pulse) Fabry-Perot cavity semiconductor laser
- High power
- Package: TO56 (dia. 5.6mm)

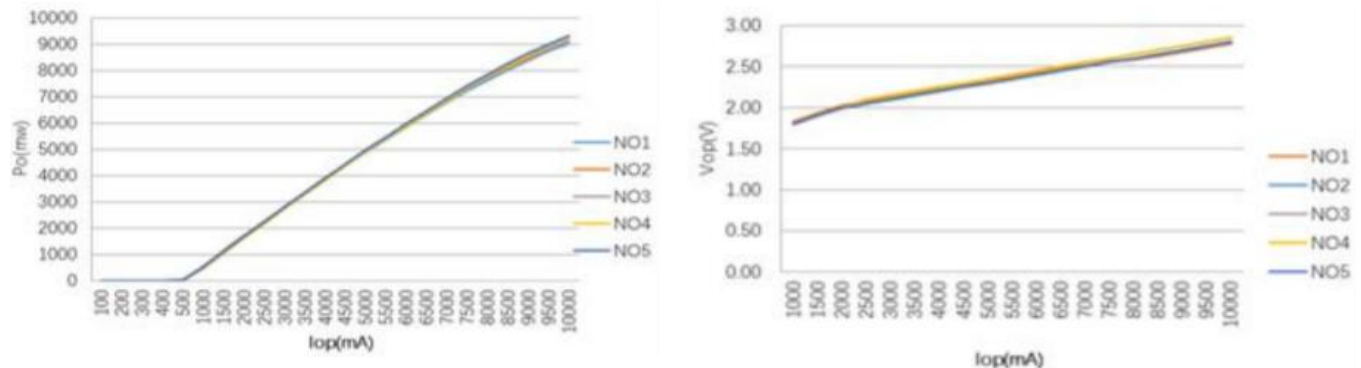
SPECIFICATIONS ($T_c = 20^\circ\text{C}$)

Item	Parameter	Min.	Typ.	Max.	Unit
Optical Parameter	Lasing wavelength	-	808	-	nm
	Output power	-	7 (ms pulse)	-	W
	Spectral width	-	1.8	3.0	nm
	Emitting area width	-	200	-	μm
	Temperature coefficient	-	0.3	-	$\text{nm}/^\circ\text{C}$
	Fast axis divergence	-	45	50	deg (cw-5w)
	Slow axis divergence	-	5	10	deg (cw-5w)
	Pulse width	0	-	10	ms
	Pulse frequency	0	10	500	Hz
Electrical Parameter	Slope efficiency	0.95	1.0	-	W/A
	Threshold current	-	0.5	1.0	A
	Operating current	-	7.2	7.8	A
	Operating voltage	-	2.6	3.0	V
Others	Package	TO56			-
	Operating temperature	10 to 50			$^\circ\text{C}$
	Storage temperature	-10 to +60			$^\circ\text{C}$

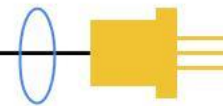
Note: Duty cycle is to be less than 10%.

TYPICAL CHARACTERISTICS

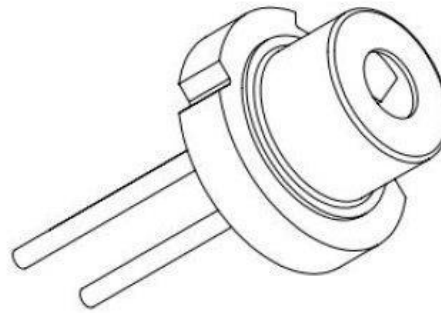
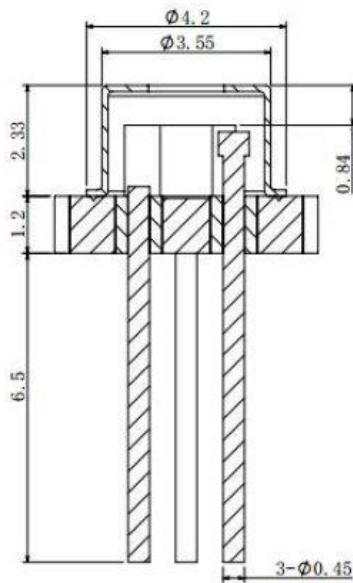
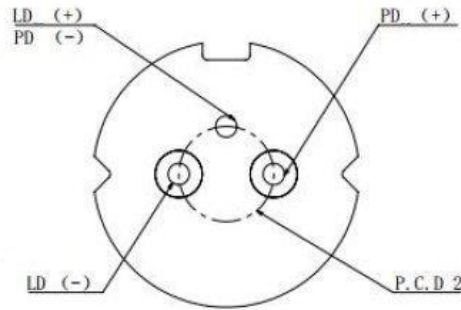
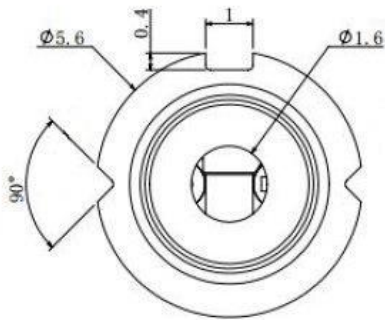
P-I-V Curve



Note: PIV curve shows the power could be more than 7W, but the linearity is not good due to limited heat dissipation of TO-56 package. It is recommended to run the pulsed laser diode with lower duty cycle, such as 5%.



MECHANICAL OUTLINE (unit: mm)



TO-56 Package

Unit: mm

ADDITIONAL NOTES

- Data in this sheet are based on TO-56 (socket, capless) package testing under 10ms 10Hz pulse 10% duty cycle condition.
- 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.