



## LDP808A7WC15

### 808nm 7000mW Pulsed Laser Diode in $\varnothing$ 5.6mm TO-18 Can Package

#### Description

The Lasermate LDP808A7WC15 is an 808nm, 7000mW pulsed laser diode in a  $\varnothing$ 5.6mm, TO-can package and with operating temperature of 50°C. The laser diode is suitable as compact light source for many applications.

#### Features

- 808nm Fabry-Perot cavity semiconductor laser diode
- Optical output power: 7000mW (ms pulse)
- Operating temperature: +50°C
- High power
- Package: TO-56 (dia. 5.6mm)

#### Specifications ( $T_C = 20^\circ\text{C}$ )

Optical Characteristics				
Parameter	Min.	Typ.	Max.	Unit
Lasing wavelength	-	808	-	nm
Output power	-	7 (ms pulse)	-	W
Spectral width	-	1.8	3.0	nm
Emitting area width	-	200	-	um
Temperature coefficient	-	0.3	-	nm/°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

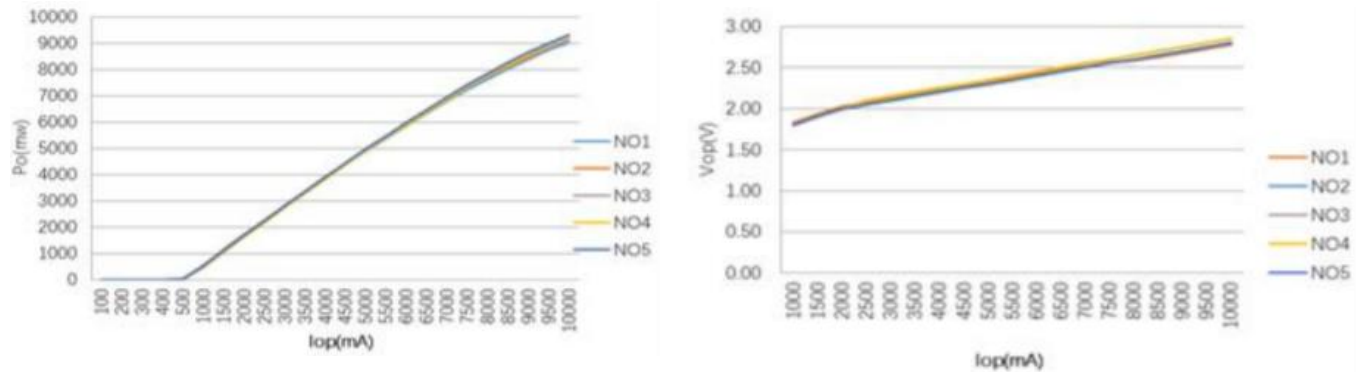
Note: Duty cycle is to be less than 10%.

Electrical Characteristics				
Parameter	Min.	Typ.	Max.	Unit
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 Characteristics				
Parameter	Min.	Typ.	Max.	Unit
Package		TO56		-
Operating temperature	10		50	°C
Storage temperature	-10		60	°C

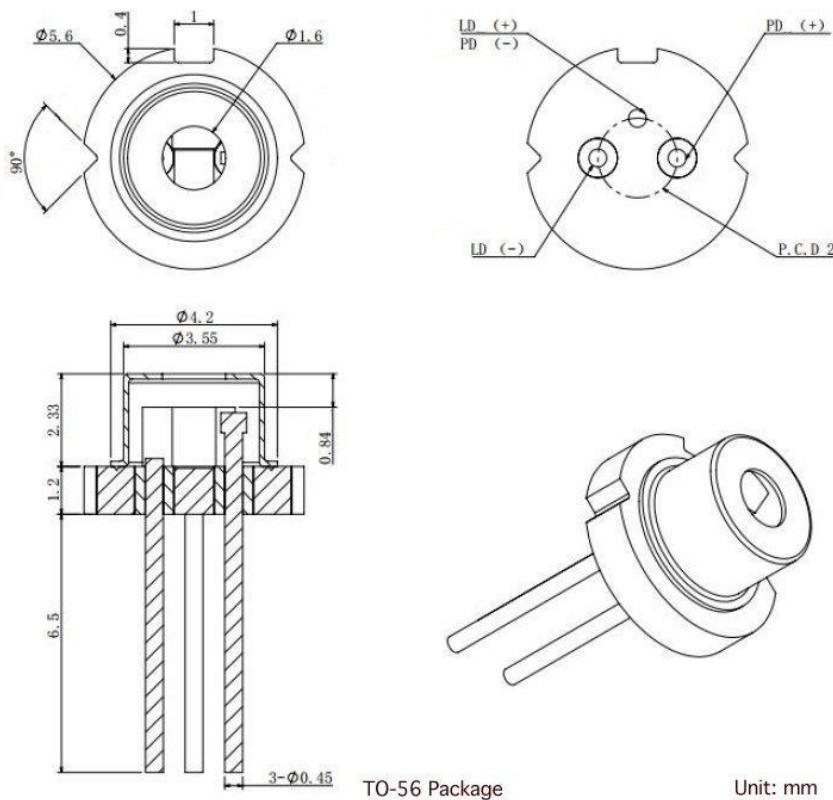
Typical Characteristics

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)





#### 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.