



LDP830A5WC15

830nm 5000mW Pulsed Laser Diode in \varnothing 5.6mm TO-18 Can Package

Description

The Lasermate LDP830A5WC15 is an 830nm, 5000mW 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

- 830nm Fabry-Perot cavity semiconductor laser diode
- Optical output power: 5000mW (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	820	830	840	nm
Output power	-	5 (ms pulse)	-	W
Spectral width	-	1.8	3.0	nm
Emitting area width	-	150	-	um
Temperature coefficient	-	0.3	-	nm/°C
Fast axis divergence	-	30	40	deg (cw-5w)
Slow axis divergence	-	5	10	deg (cw-5w)
Pulse width	0	10	-	ms
Pulse frequency	0	10	-	Hz

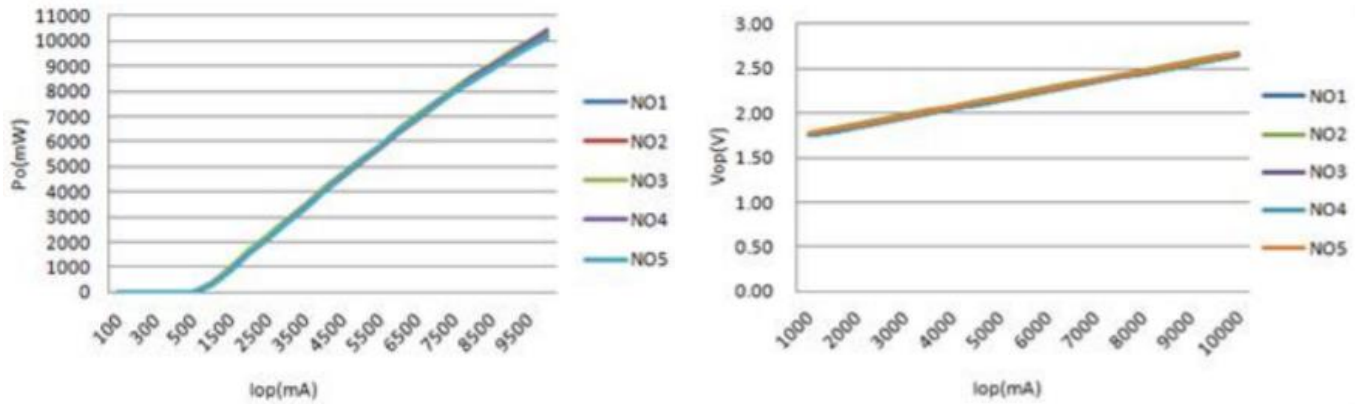
Note: Duty cycle is to be less than 10%.

ELECTRICAL CHARACTERISTICS				
PARAMETER	MIN.	TYP.	MAX.	UNIT
Slope efficiency	1.05	1.10	-	W/A
Threshold current	-	0.5	1.0	A
Operating current	-	4.9	5.3	A
Operating voltage	-	2.5	3.0	V

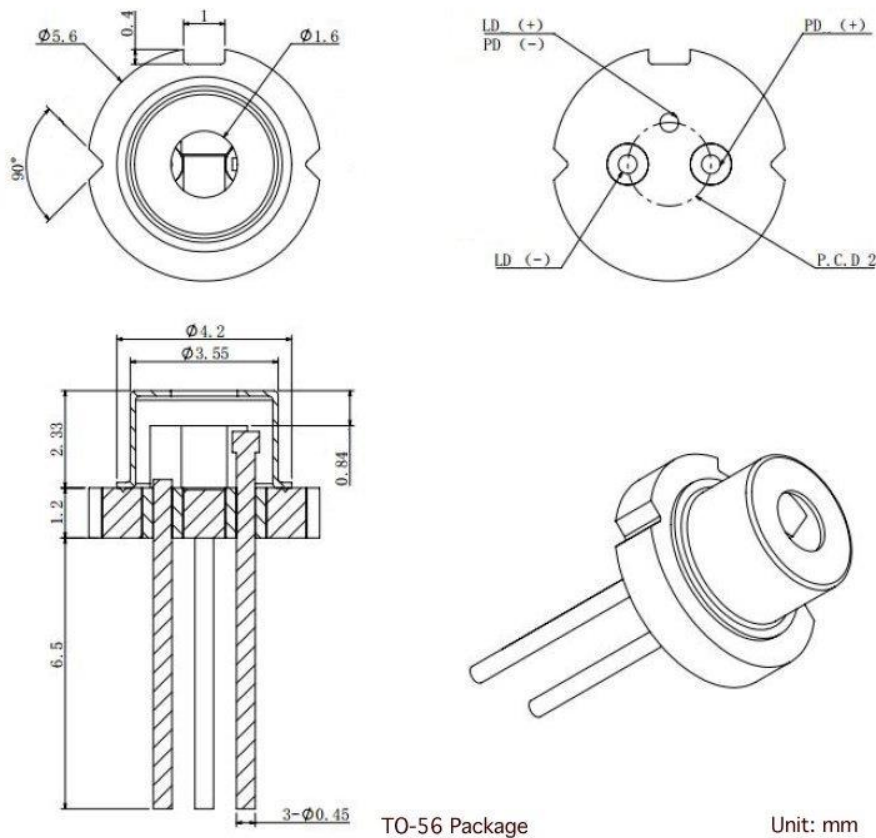
OTHERS CHARACTERISTICS				
PARAMETER	MIN.	TYP.	MAX.	UNIT
Package	TO56			-
Operating temperature	10		50	°C
Storage temperature	-10		60	°C

Typical Characteristics

P-I-V CURVE



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.