



LDP905D25WC48

905nm 25W Pulsed Laser Diode in ø5.6mm TO-56 Can Package

Description

The Lasermate LDP905D25WC48 is a high power 905nm, 25W pulsed laser diode in a ø5.6mm, TO-can package and with operating temperature of 85°C. The laser diode is suitable as compact light source for many applications.

Features

- 905nm Infrared laser diode
- Optical output power: 25W
- Operating temperature: +85°C
- Narrow beam divergence
- High laser power density
- Package: TO-56 (dia. 5.6mm)

Applications

- Laser range finder (LRF)
- Automotive application
- IR illumination
- Laser radar

Absolute Maximum Ratings (T_c=25°C)

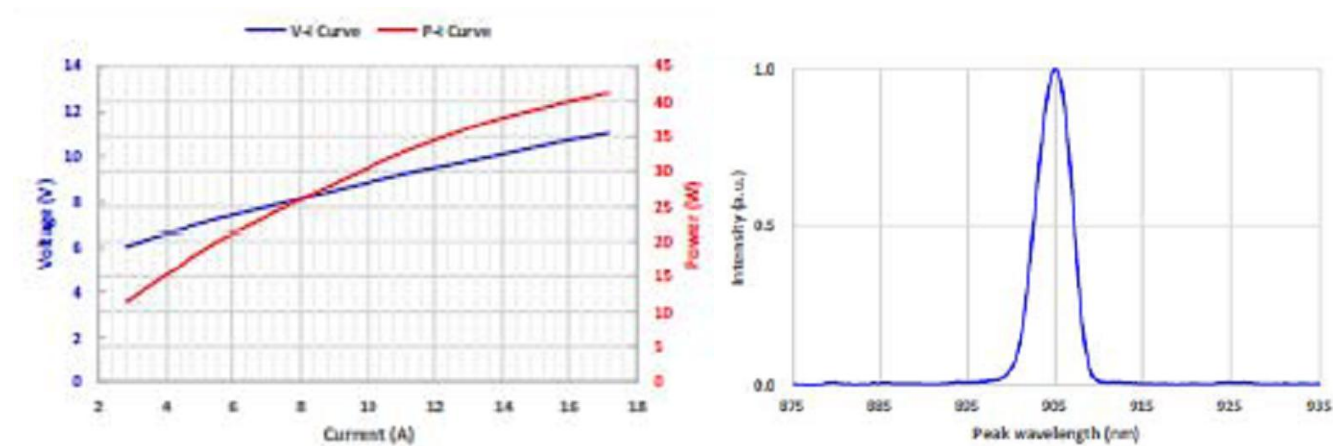
PARAMETER	SYMBOL	RATING	UNIT
Peak output power	P _{peak}	30	W
Operating voltage	V _{op}	7.0	V
Operating current	I _{op}	9	A
Reverse voltage	V _R	3	V
Pulse width (FWHM)		200	ns
Duty cycle		0.1	
Operating temperature	T _{opr}	-40 to +85	°C
Storage temperature	T _{stg}	-40 to +100	°C
ESD voltage	E _{sd}	≥500	V

Electrical and Optical Characteristics (T_c = 25 °C)

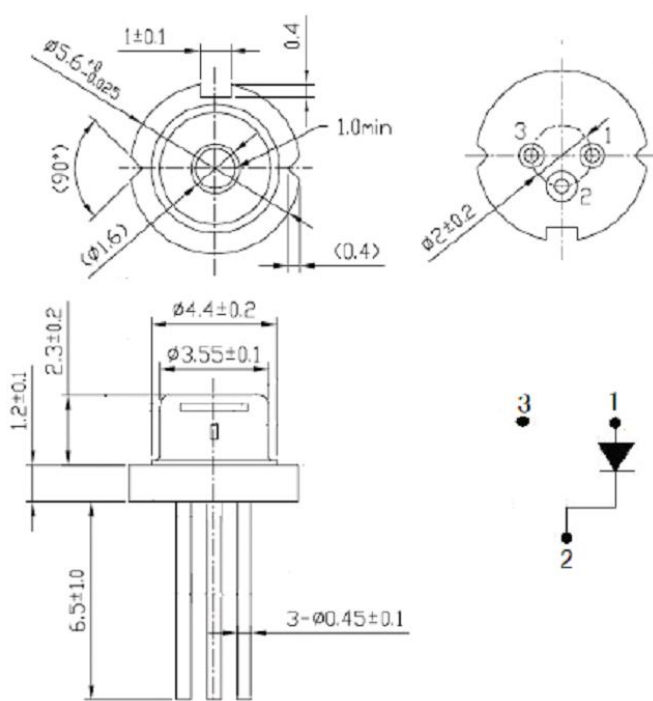
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
Emission wavelength	λ _p	895	905	915	nm
Peak output power	P _o		25	30	W
Spectral width (FWHM)	λ _w	-	4	-	nm
Threshold current	I _{th}	-	0.5	-	A
Parallel divergence angle	Θ _{//}	-	12	-	deg
Perpendicular divergence angle	Θ _⊥	-	25	-	deg
Temperature coefficient of wavelength	Δλ/ΔT	-	0.28	-	nm/K
Light emitting area		-	84x10	-	um

Note: All characteristics refer to pulsed measurements (200 ns pulse width at 5kHz repetition rate).

Typical Characteristics



Mechanical Outline (unit: mm)





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.