

980nm 1000mW 25°C Laser Diode in TO3 Package

Model No. LD-980-1W3x

FEATURES

- 980nm 1W CW laser diode
- High efficiency Quantum Well structure
- Package: TO3

APPLICATIONS

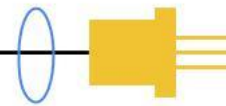
- Solid-state laser pumping
- Medical usage
- Infrared sources for night vision
- Information recognition

SPECIFICATIONS (T_c = 25°C)

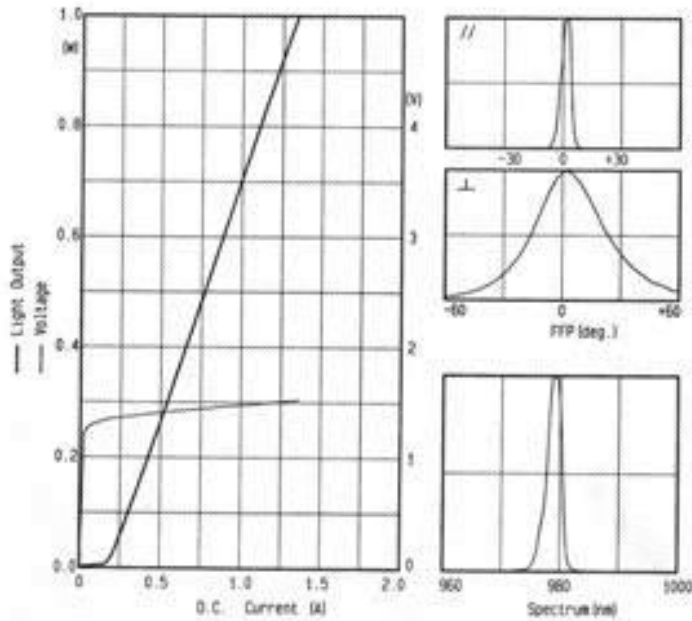
Parameter	Typ.	Unit
CW Output Power	1000	mW
Peak Wavelength λ	980±10	nm
Spectral Width $\Delta\lambda$	≤3	nm
Threshold Current	≤0.25	A
Operating Current	≤1.36	A
Operating Voltage	≤2.0	V
Slope Efficiency	≥0.88	W/A
Beam Divergence $\theta_{\perp} \times \theta_{\parallel}$	40x10	deg
Wavelength Temperature Coefficient	0.4	nm/°C
Emitting Area	100x1	μm
Series Resistance	≤0.50	Ω
Polarization	TE	
Package Style	TO3	

ABSOLUTE MAXIMUM RATINGS

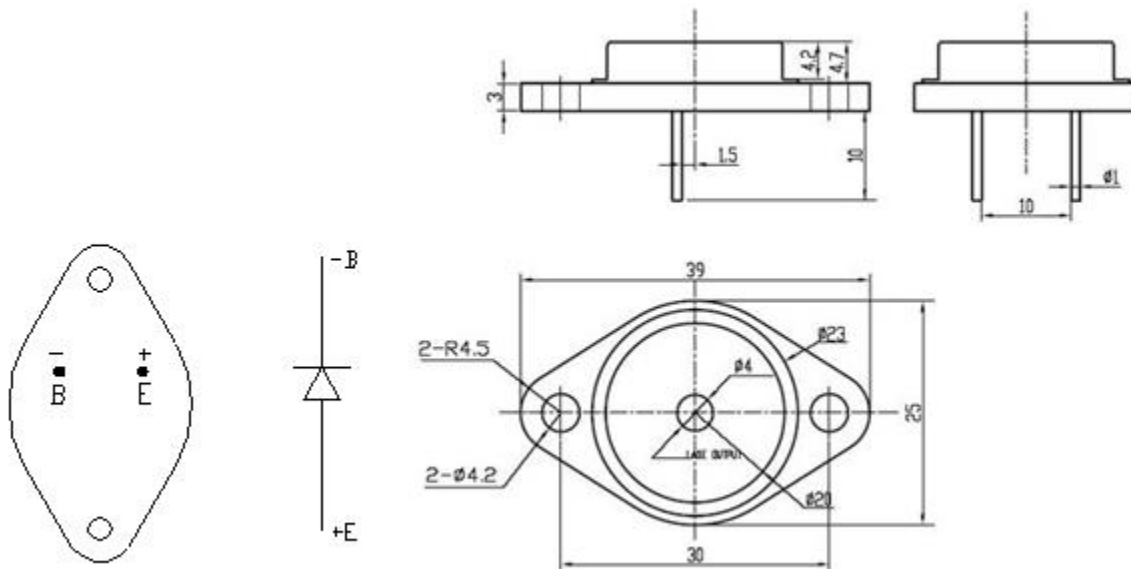
Parameter	Typ.	Unit
Operating Temperature	10 to 25	°C
Storage Temperature	-10 to 60	°C
Reverse Voltage	2.0	V

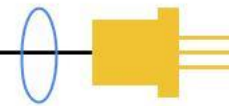


TYPICAL CHARACTERISTICS



MECHANICAL OUTLINE (unit: mm)





ORDERING INFORMATION

Part Number	Package Style
LD-980-1W3	TO3 with removable metal cap
LD-980-1W3N	TO3 with non-removable metal cap

ADDITIONAL NOTES

- High power laser diodes are high energy laser devices. It is harmful to human body and health. Never look directly into the laser output port.
- High power laser diodes could operate in forward voltage. The reverse current and voltage should not be higher than 25 μ A and 3 V, respectively.
- Heavy humidity can get dew on the LD then damage the LD.
- The generated heat must be removed in time when the LD is working.
- The high temperature will affect the performance of the products. The lifetime can also be shortened by high temperature.
- The operating current and optical power of laser must not be higher than the given rate current and power. The excessive current would accelerate aging and shorten lifetime, even damage the LD.
- The semiconductor laser diode is a sensitive electronic device. Please observe precaution for handling electrostatic sensitive devices.
- 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.