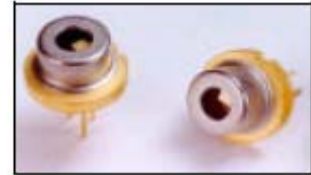




LDM-0808-1000-93

TECHNICAL DATA



High Power Infrared Laser Diode

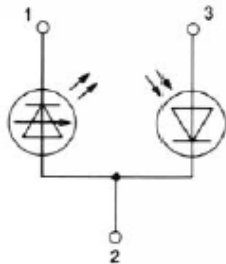
Features

- CW Output Power: 1 W
- Typical 808 nm Emission Wavelength
- High-efficiency Quantum Well Structure
- TO5 Package

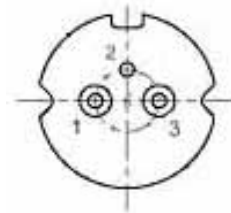
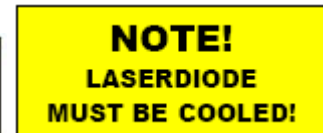
Applications

- Solid-state Laser Pumping
- Medical Usage
- Target Designator
- Free-space Optical Communication

PIN CONNECTION



1. Laserdiode cathode
2. Laserdiode anode and photodiode cathode
3. Photodiode anode



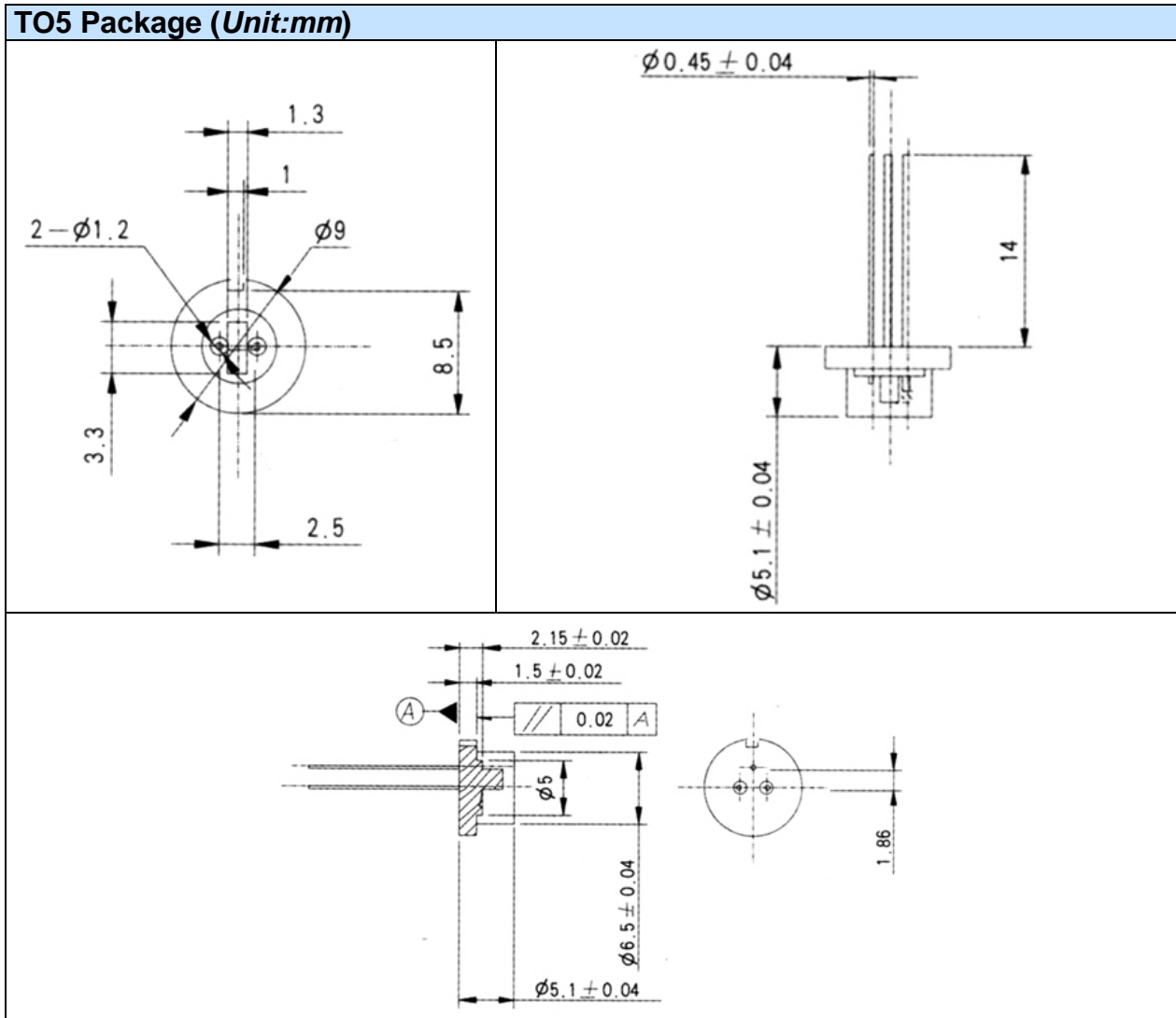
Specifications (25°C)

Type	LDM-0808-1000-93	Unit
Optical Specification		
CW Output Power P_O	1	W
Peak Wavelength Δ	808±10	nm
Spectral Width $\Delta\lambda$	≤ 3.0	nm
Emitting Area	100x1	µm
Wavelength Temperature Coefficient	0.3	nm/°C
Beam Divergence $\theta_{\perp} \times \theta_{\parallel}$	40x10	Deg
Polarization	TE	
Electrical Specification		
Slope Efficiency E_S	≥ 1.0	W/A
Threshold Current I_{th}	≤ 0.25	A
Operation Current I_O	≤ 1.2	A
Operation Voltage V_f	≤ 2.2	V
Series Resistance R_d	≤ 0.5	Ω
Package Style	TO5	
Absolute Maximum Ratings		
Reverse Voltage V_r	2.0	V
Operating Temperature T_O	10 ... 30	°C
Storage Temperature T_{stg}	-40 ... 85	°C



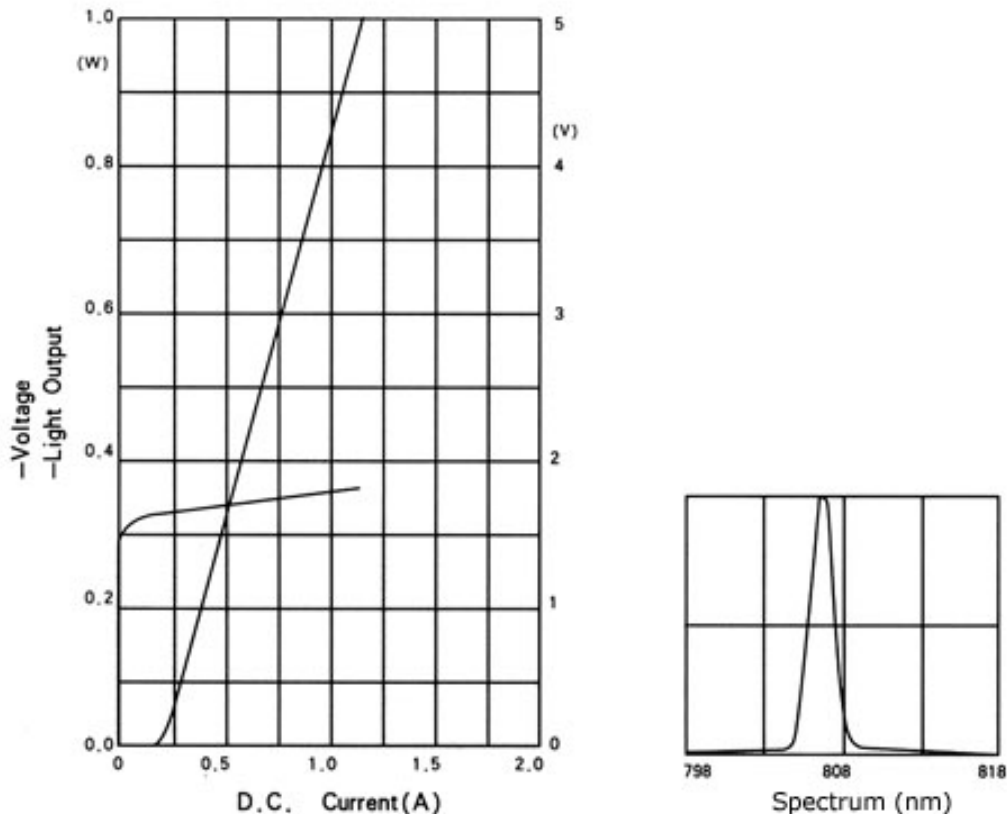
Package Dimensons

TO5 Package (Unit:mm)





Typical Performance Curves



Notes

1. 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.
2. High power laser diodes could operate in forward voltage. The reverse current and voltage should not be higher than 25 μ A and 3V, respectively.
3. Heavy humidity can get dew on the LD then damage the LD.
4. The generated heat must be removed in time when the LD working.
5. The high temperature will effect the performance of the products. The lifetime can also be shortened by high temperature.
6. 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.
7. The semiconductor laser diode is a sensitive electronic device. Please observe precaution for handling electrostatic sensitive devices.