LDM-0980-002w-35

TECHNICAL DATA



High Power Infrared Laser Diode

Features

Lasing Mode Structure: multi mode
Peak Wavelength: typ. 980 nm
Optical Ouput Power: 2 W

Package: TO-3, without Photodiode



Electrical Connection

Pin Configuration	Bottom View
Q ₁	
PIN Function	()
1 LD Cathode	(12)
2 LD Anode (isolated from cas	e) \ /
02	

Absolute Maximum Ratings ($T_C=20$ °C)

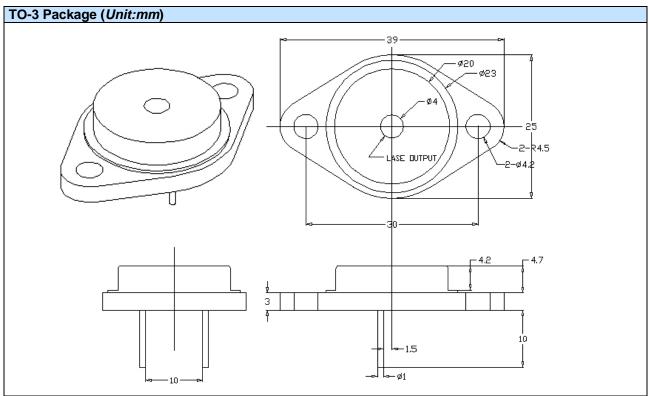
Item	Symbol	Value	Unit
CW Output Power	Po	2	W
Operating Case Temperature	T _C	10 +30	°C
Storage Temperature	T _{stq}	-40 +85	°C

Specifications ($T_C=20$ °C)

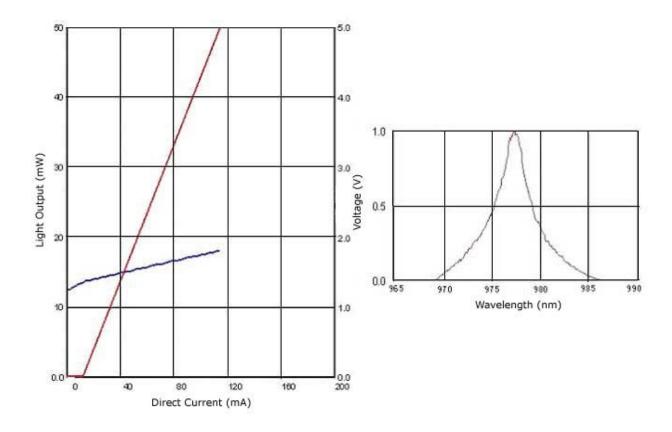
Item	Symbol	Min.	Тур.	Max.	Unit			
Optical Specifications								
CW Output Power	Po	-	2	-	W			
Center Wavelength	λ_{C}	960	975	990	nm			
Spectral Width (FWHM)	Δλ	ı	-	2.5	nm			
Wavelength Temperature Coefficient	∂λ / ∂T	-	0.3	-	nm/°C			
FWHM Beam Divergence	θ∥	-	-	10	deg			
	θΪ	ı	-	42	deg			
Emitting Aperature	WxH		200 x 1		μm			
Polarization		TE						
Electrical Specifications								
Threshold Current	I _{th}	-	-	0.5	Α			
Operating Current	I _{op}	-	-	2.56	Α			
Slope Efficiency	η	0.9	-	-	W/A			
Operating Voltage	U_{op}		-	2.0	V			
Series Resistance	R_d	-	-	0.25	Ω			

The above specifications are for reference purpose only and subjected to change without prior notice.

Package Dimensons



Typical Preformance Curves



Safety of Laser light

Laser Light can damage the human eyes and skin. Do not expose the
eye or skin directly to any laser light and/or through optical lens. When
handling the LDs, wear appropriate safety glasses to prevent laser
light, even any reflections from entering to the eye. Focused laser
beam through optical instruments will increase the chance of eye
hazard.



These LDs are emitting invisible light.

Cautions

1. Operating methode

- This LD shall change its forward voltage requirement and optical ouput power according to temperature change. Also, the LD will require more operation current to maintain same ouput power as it degrades. In order to maintain output power, use of APC (Automatic Power Control) is recommended. Which use monitor feedback to adjust the operation current.
- Confirm that electrical spike current generated by switching on and off does not exceed the
 maximum operating current level specified herein above as absolute maximum rating. Also,
 employ appropriat countermeasures to reduce chattering and/or overshooting in the circuit.

2. Static Electricity

• Static electricity or electrical surges will reduce and degrade the reliability of the LDs. It is recommended to use a wrist trap or anti-electrostatic glove when handling the product.

3. Absolute Maximum Rating

Active layer of LDs shall have high current density and generate high electric field during its
operation. In order to prevent excessive damage, the LD must be operated strictly below
absolute maximum rating.

