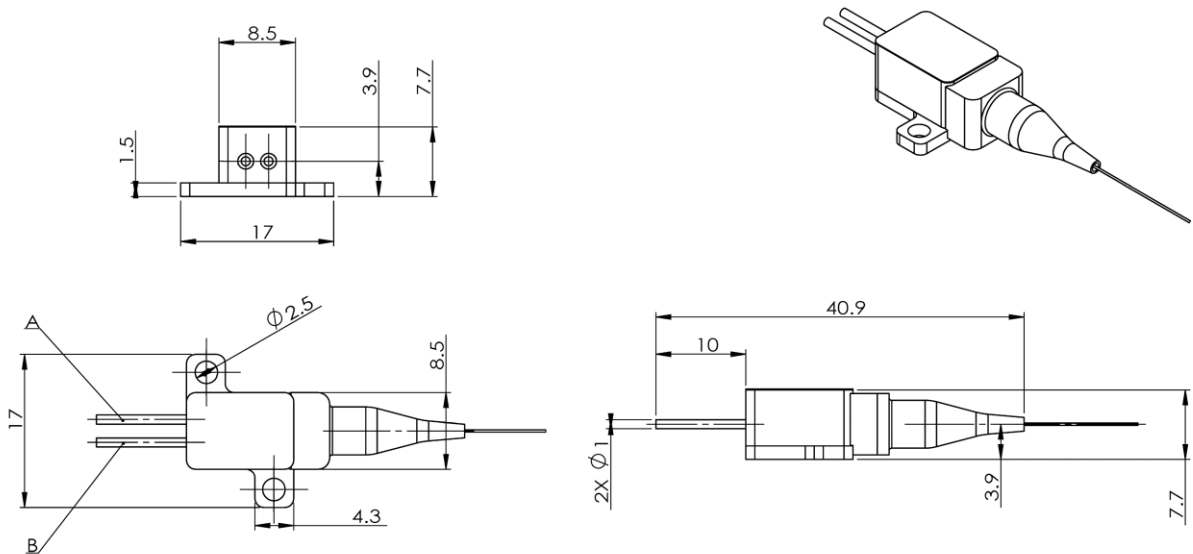


**1W/2W 830nm
Single Emitter
Multimode Fiber
Coupled Diode Laser**

Dimensions Diagram

Unit: mm



PIN OUT:

PIN	Description
A	Laser Cathode+
B	Laser Anode-

Instruction for Use:

- Avoid exposure of the eyes or skin to direct or scattered radiation;
- ESD protection must be adopted during transportation, storage and operation. Short-circuit protection between pins is required during transportation and storage.
- For lasers with an operating current above 6A, please connect the leads using soldering. The soldering point should be as close as possible to the root of pin, with a temperature below 260°C, and a soldering duration less than 10 seconds ;
- Drive constant current power supply by laser and avoid surge while working;
- Operate under the rated current and rated power;
- Good heat dissipation must be ensured when the laser device is operating;
- Operating temperature: 15°C to 55°C;
- Storage temperature: -30°C to + 70°C.



Specification for 1W 830nm LD with 50um/0.14NA*1

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Optical & Electrical Data					
Output Power(CW)	Po	-	1	-	W
Centre Wavelength	λ_c	820	830	840	nm
Spectral Width (FWHM)	$\Delta\lambda$	-	3.5	6	nm
Threshold Current	I _{th}	-	0.25	0.4	A
Operating Current	I _{op}	-	1.2	1.4	A
Operating Voltage	V _{op}	-	1.85	2.2	V
Convention Efficiency	η	-	45	-	%
Slop Efficiency	SE	-	0.95	-	W/A
Operating Case Temperature	T _c	15	-	55	°C
Storage Temperature	T _s	-30	-	70	°C
Wavelength shift vs. Temperature	$\Delta\lambda / \Delta T$	-	0.28	-	nm/°C
Wavelength shift vs. output power*2	$\Delta\lambda / \Delta P$	-	0.86	-	nm/W
Fiber Data					
Core Diameter	D _c	-	50	-	nm
Numeric Aperture	NA	-	0.14	-	-
Cladding Diameter	D _{cl}	-	125	-	nm
Buffer Diameter	D _b	-	250	-	nm
Fiber Length	L _f	-	0.6	-	m
Fiber Tube Diameter	D _t	-	0.9	-	mm
Connector		-	ST	-	-
Others					
Lead soldering temperature, 10 s max	T _{ls}	-	-	260	°C
Fiber bend radius		37.5	-	-	mm

*1. All performance data tested at a heat sink temperature of 25°C, with the contact resistance between the case and the heat sink being less than 1 cm² K/W.

*2. Data tested at room temperature.

Specification for 1W 830nm LD with 62.5um/0.22NA*1

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Optical & Electrical Data					
Output Power(CW)	Po	-	1	-	W
Centre Wavelength	λ_c	820	830	840	nm
Spectral Width (FWHM)	$\Delta\lambda$	-	3	6	nm
Threshold Current	I _{th}	-	0.25	0.4	A
Operating Current	I _{op}	-	1.2	1.4	A
Operating Voltage	V _{op}	-	1.9	2.2	V
Convention Efficiency	η	-	45	-	%
Slop Efficiency	SE	-	0.95	-	W/A
Operating Case Temperature	T _c	15	-	55	°C
Storage Temperature	T _s	-30	-	70	°C
Wavelength shift vs. Temperature	$\Delta\lambda / \Delta T$	-	0.28	-	nm/°C
Wavelength shift vs. output power*2	$\Delta\lambda / \Delta P$	-	0.86	-	nm/W
Fiber Data					
Core Diameter	D _c	-	62.5	-	nm
Numeric Aperture	NA	-	0.22	-	-
Cladding Diameter	D _{cl}	-	125	-	nm
Buffer Diameter	D _b	-	250	-	nm
Fiber Length	L _f	-	0.6	-	m
Fiber Tube Diameter	D _t	-	0.9	-	mm
Connector		-	ST	-	-
Others					
Lead soldering temperature, 10 s max	T _{ls}	-	-	260	°C
Fiber bend radius		37.5	-	-	mm

*1. All performance data tested at a heat sink temperature of 25°C, with the contact resistance between the case and the heat sink being less than 1 cm² K/W.

*2. Data tested at room temperature.

Specification for 2W 830nm LD with 50um/0.14NA*1

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Optical & Electrical Data					
Output Power(CW)	Po	-	2	-	W
Centre Wavelength	λ_c	820	830	840	nm
Spectral Width (FWHM)	$\Delta\lambda$	-	3.5	6	nm
Threshold Current	I _{th}	-	0.25	0.4	A
Operating Current	I _{op}	-	2.3	2.5	A
Operating Voltage	V _{op}	-	1.9	2.2	V
Convention Efficiency	η	-	43	-	%
Slop Efficiency	SE	-	0.95	-	W/A
Operating Case Temperature	T _c	15	-	55	°C
Storage Temperature	T _s	-30	-	70	°C
Wavelength shift vs. Temperature	$\Delta\lambda / \Delta T$	-	0.28	-	nm/°C
Wavelength shift vs. output power*2	$\Delta\lambda / \Delta P$	-	0.86	-	nm/W
Fiber Data					
Core Diameter	D _c	-	50	-	nm
Numeric Aperture	NA	-	0.14	-	-
Cladding Diameter	D _{cl}	-	125	-	nm
Buffer Diameter	D _b	-	250	-	nm
Fiber Length	L _f	-	0.6	-	m
Fiber Tube Diameter	D _t	-	0.9	-	mm
Connector		-	ST	-	-
Others					
Lead soldering temperature, 10 s max	T _{ls}	-	-	260	°C
Fiber bend radius		37.5	-	-	mm

*1. All performance data tested at a heat sink temperature of 25°C, with the contact resistance between the case and the heat sink being less than 1 cm² K/W.

*2. Data tested at room temperature.

Specification for 2W 830nm LD with 62.5um/0.22NA*1

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Optical & Electrical Data					
Output Power(CW)	Po	-	2	-	W
Centre Wavelength	λ_c	820	830	840	nm
Spectral Width (FWHM)	$\Delta\lambda$	-	3	6	nm
Threshold Current	I _{th}	-	0.25	0.4	A
Operating Current	I _{op}	-	2.3	2.5	A
Operating Voltage	V _{op}	-	1.9	2.2	V
Convention Efficiency	η	-	43	-	%
Slop Efficiency	SE	-	0.95	-	W/A
Operating Case Temperature	T _c	15	-	55	°C
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Wavelength shift vs. Temperature	$\Delta\lambda / \Delta T$	-	0.28	-	nm/°C
Wavelength shift vs. output power*2	$\Delta\lambda / \Delta P$	-	0.86	-	nm/W
Fiber Data					
Core Diameter	D _c	-	62.5	-	nm
Numeric Aperture	NA	-	0.22	-	-
Cladding Diameter	D _{cl}	-	125	-	nm
Buffer Diameter	D _b	-	250	-	nm
Fiber Length	L _f	-	0.6	-	m
Fiber Tube Diameter	D _t	-	0.9	-	mm
Connector		-	ST	-	-
Others					
Lead soldering temperature, 10 s max	T _{ls}	-	-	260	°C
Fiber bend radius		37.5	-	-	mm

*1. All performance data tested at a heat sink temperature of 25°C, with the contact resistance between the case and the heat sink being less than 1 cm² K/W.

*2. Data tested at room temperature.

Ordering Information

For product inquiries and orders, please contact us at info@lasepro.com.

P/N	Wavelength	Power	NA	Feedback Protection	Connector
LPFC8300101	830+/-10nm	1W	50um/0.14NA	No	ST
LPFC8300102	830+/-10nm	1W	60um/0.22NA	No	ST
LPFC8300201	830+/-10nm	2W	50um/0.14NA	No	ST
LPFC8300202	830+/-10nm	2W	60um/0.22NA	No	ST