

PDL915-540-200 High Power Diode Laser

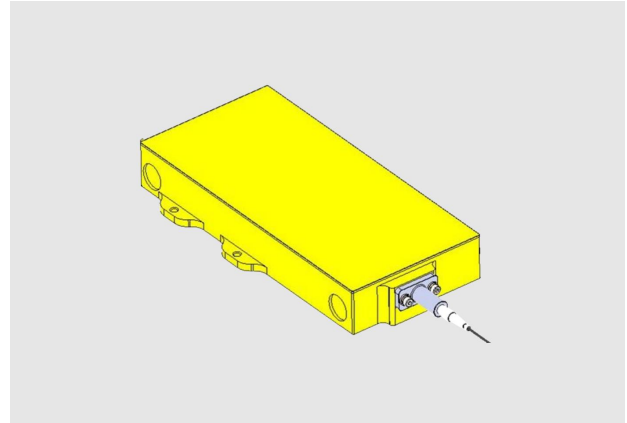
PN:DL915540200

PRODUCT FEATURES

- ▶ Multiple single emitter based diode laser, high reliability
- ▶ 1040-1200nm feedback protection

MAIN APPLICATION

- ▶ Fiber laser pumping
- ▶ Direct applications



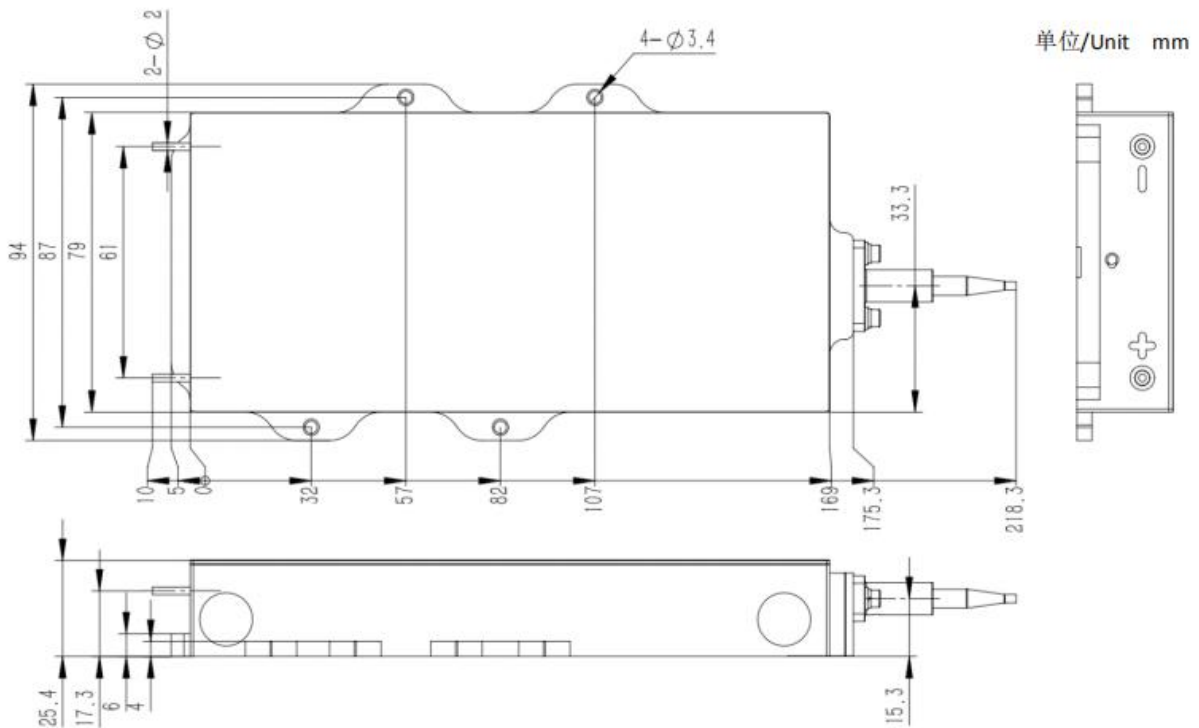
TECHNICAL INDEX

Performance			Index		
			Min.	Typ.	Max.
Optical Parameters ¹	Output Power	(W)		540	
	Center Wavelength ²	(nm)	900	915	930
	95% Power Within NA	(NA)		0.6	
	Back Reflection Isolation Range	(nm)	1040	1064	1200
	Back Reflection Isolation	(dB)	30		
Fiber Parameters	Fiber Core Diameter	(μm)	196	200	204
	Fiber Clad Diameter	(μm)	217	220	223
	Numerical Aperture	(NA)	0.20	0.22	0.24
	Fiber Length ²	(m)	1.5	2.0	
	Loose Tubing Diameter	(mm)	1.1	1.4	
	Loose Tubing length	(m)	1.2	1.5	
	Fiber Connector		Bare Fiber/SC Ceramic Ferrule		
	Fiber Bend Radius	(mm)	60		

Electrical Parameters ³	Conversion Efficiency	(%)		48	
	Threshold Current	(A)		1.1	
	Operating Current ³	(A)			26.5
	Operating Voltage ³	(V)			45.0
Thermal Parameters ³	Operating Temperature ⁴	(°C)	5		45
	Storage Temperature	(°C)	-30		85
	Wavelength Temperature Coefficient	(nm/°C)		0.35	
	Lead Soldering Temperature	(°C)		260	300
	Lead Soldering Time	(s)			10

1. Tested at 25°C cold plate temperature.
2. Others available upon request.
3. Reduced lifetime if used above nominal operating conditions.
4. Laser Wavelength would shift when package operating temperature is changed

SIZE



APPLICATION NOTES:

1. The laser beam emitted from the diode laser is invisible, please follow the standard safety procedures for IEC Class 4 lasers, avoid eye or skin exposure to direct or scattered radiation;
2. ESD is the primary cause of unexpected diode laser failure. The diode laser should be handled by trained operators wearing ESD grounding straps and the work surface should be grounded. Connectors should be attached to the pump pins prior to removing the ESD shortcut protection component;
3. Ensure the end of the fiber be free of dust and contamination before operation.
4. The laser should be operated according to the specifications, maximum optical power should not be exceeded;
5. The laser may be damaged by excessive drive current, stable power supply should be used to avoid surge current;
6. To ensure long-term reliability of the laser, a 20 - 30°C cold plate is needed to make the laser work within proper temperature range.

MODEL EXPLANATION

PDL
9
1
5
-
5
4
0
-
2
0
0

High Power Diode Laser	Operating Wavelength		Output Power		Output Fiber	
	915	915nm	540	540W	200	200/220 μm
940	940nm	140	140W	105	105/125 μm	
976	976nm	200	200W	106.5	106.5/125 μm	
		240	240W	135	135/155 μm	
		350	350W	220	220/242 μm	
		370	370W			