PDL976-250-135 High Power Diode Laser

PN: DL976250135

PRODUCT FEATURES

- ▶Multiple single emitter based diode laser, high reliability
- ▶1020-1200nm feedback protection

MAIN APPLICATION

- ▶Fiber laser pumping
- ▶Direct applications

TECHNICAL INDEX

Performance			Index		
			Min.	Typ.	Max.
Optical Data	CW Output Power(in fiber)	(W)	-	250	-
	CW Output Power(as measured)	(W)	240	250	-
	Center Wavelength	(nm)	973	976	979
	Spectral Width (FWHM)	(nm)	-	4	
	Wavelength Shift with Temperature	(nm/℃)	-	0.3	-
	Light within 0.17NA	(%)	92	-	-
Electrical Data	Operating Current	(A)	-	18.5	20
	Threshold Current	(A)		1	
	Electrical-to-Optical Efficiency	(%)		50	
	Slope Efficiency	(W/A)		14	
	Oprating Voltage	(V)		27.2	30
Fiber Data	Core diameter	(μm)		135	
	Cladding diameter	(μm)		155	
	Numerical Aperture	-		0.22	

	Total Fiber Length	(m)		2.0	
	Fiber Loose Tubing Diameter	(μm)		900	
	Bending Radius	(mm)	62		
	Connector	-		FC	
Isolation Feedback	Wavelength Range	(nm)	1020		1200
	Isolation	(dB)		30	
Others	Operating Case Temp.	(℃)	15		35
	Storage Temp. (Non-operating)	(℃)	-20		+70
	ESD	(V)			500
	Lead Soldering Temp.	(℃)			260
	Lead Soldering Time	(sec)			10
	Relative Humidity	(%)	15		75

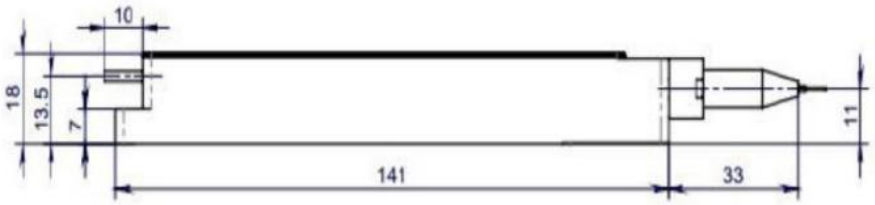
1. Tested at 25˚C cold plate temperature.

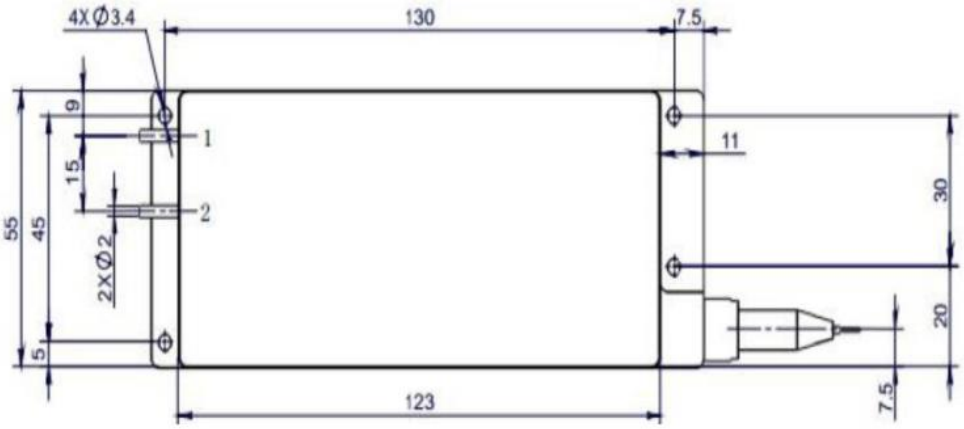
2. Others available upon request.

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