

## 808nm 15W Diode Laser HJK808DA5FN-35W

**Model #:** HJK808DA5FN-35W

**Description:** 808 nm 35W Fiber Coupled Diode Laser

**Features:** 808 nm wavelength, 25W output power, 105 um fiber core, 0.22 N.A.

**Application:** Solid state laser pumping, medical treatment, material processing

**Specifications:**

	Specifications(25°C)	Symbol	Unit	HJK808DA5FN-35W		
				Minimum	Typical	Maximum
<b>Parameter<sup>(1)</sup></b>	CW Output Power	$P_O$	W	35	-	-
	Threshold current	$I_{th}$	A	-	1.4	-
	Operating current	$I_{op}$	A	-	-	9.5
	Operating voltage	$V_{op}$	V	-	-	12
	Reverse Voltage	$V_{re}$	V	-	15	-
	Slope Efficiency	$\eta$	W/A	-	5.5	-
	Electrical-to-Optical Efficiency	PE	%	-	48	-
	Center wavelength	$\lambda_C$	nm	805	-	811
	Spectral width(FWHM)	$\Delta\lambda$	nm	-	5	-
	Back reflection wavelength Range	$\lambda$	nm	1040	-	1200
	Back reflection isolation	-	dB	-	30	-
	Wavelength Shift with Temperature	-	nm/°C	-	0.3	-
Wavelength Shift with Current	-	nm/A	-	1	-	
<b>Fiber Data</b>	Buffer diameter	$D_{buf}$	$\mu m$	-	250	-
	Cladding diameter	$D_{clad}$	$\mu m$	-	125	-
	Core diameter	$D_{core}$	$\mu m$	-	105	-
	Numeric aperture	NA	NA	-	0.22	-
	Fiber length <sup>(2)</sup>	$l_c$	m	1.4	1.5	1.6
	Connector <sup>(3)</sup>	-	-	-	-	-
	Fiber jacket <sup>(4)</sup>	-	-	-	0.9mmPVC	-
	Fiber Bend Radius	-	mm	-	37.5	-
<b>Thermistor</b>	-	$R_t$	(K $\Omega$ )/ $\beta$ (25°C)	-	10 $\pm$ 3%/3477	-
<b>Others</b>	ESD	-	V	-	-	500
	Storage temperature	-	°C	-20	-	70
	Lead Soldering Temp	$T_{is}$	°C	-	-	260
	Lead Soldering Time	$T_{is}$	sec	-	-	10
	Operating case temperature <sup>(5)</sup>	$T_{op}$	°C	15	-	35
	Relative Humidity	-	%	15	-	75

(1) Data measured under operation output at 35W.

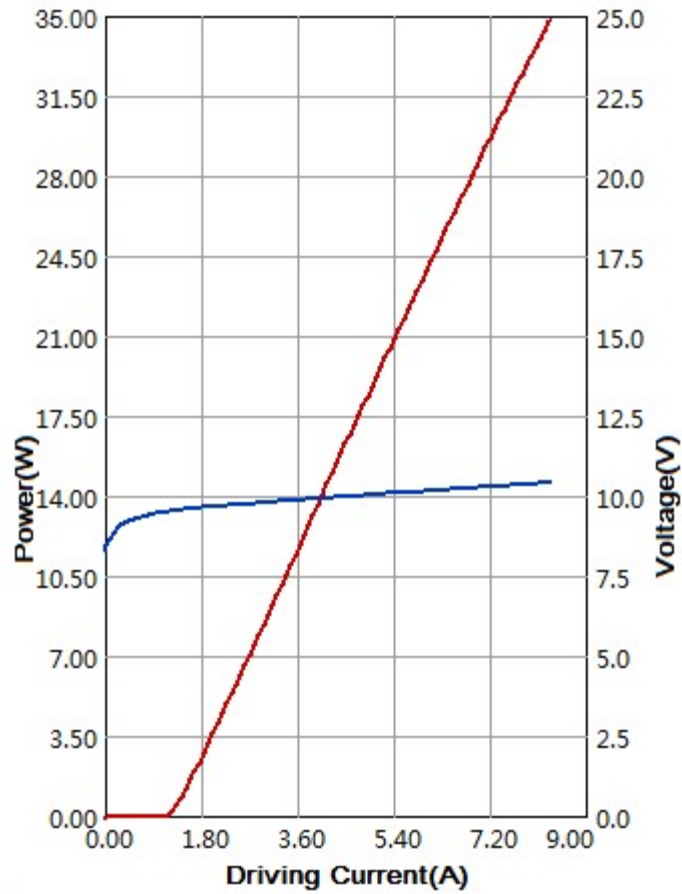
(2) Other length available upon request.

(3) Other connector available upon request.

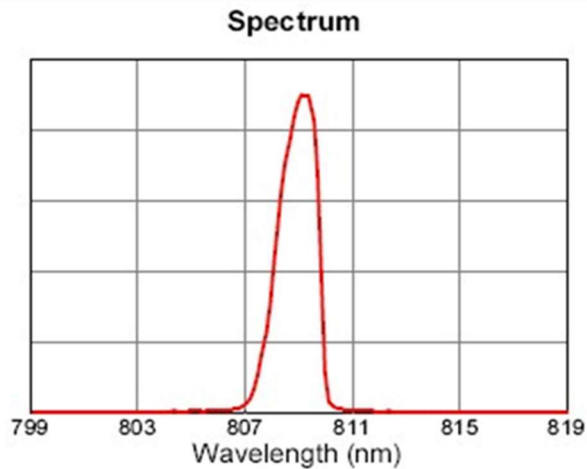
(4) Other fiber jacket available upon request.

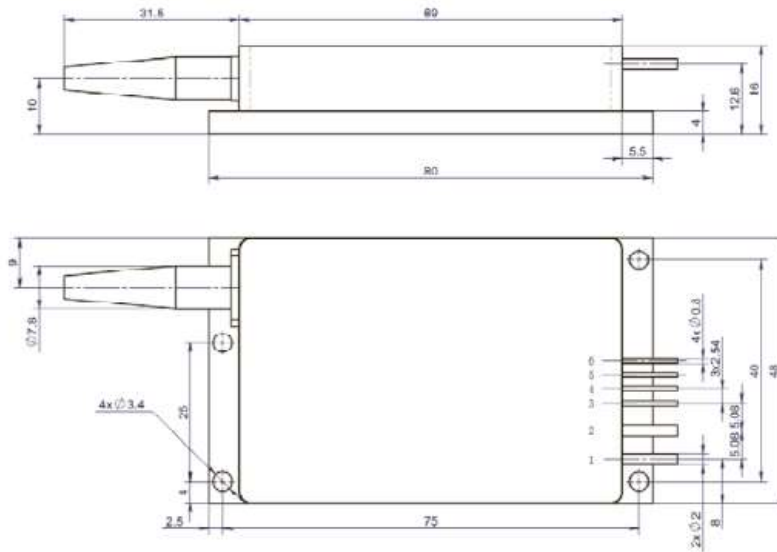
(5) Operating temperature defined by the package case. Acceptable operating range is 15 - 35C, but performance may vary.

**Characteristics**



**Typ. Spectrum (T=25°C)**



**Package Dimensions (mm)**


Pins	Function
1	LD (+)
2	LD (-)
3	Thermistor*
4	Thermistor*

\*:Typical function,can be customizable.

**OPERATING NOTES**

- ◆ Avoid eye exposure to direct or scattered radiation.
- ◆ ESD precautions must be taken.
- ◆ Please connect pins to wires by solder instead of using socket when operation current is higher than 6A.
- ◆ Soldering point should be close to the root of the pins. Soldering temperature should be lower than 260℃ and time shorter than 10 second.
- ◆ Use constant current power supply. Avoid surge current.
- ◆ Laser diode must be used according to the specifications.
- ◆ Laser diode must work with good cooling.
- ◆ Operation temperature is 15℃~ 35℃.
- ◆ Storage: -20℃~ +70℃, all pins short-circuit.



**Declaration:** information and specifications contained herein are deemed to be reliable and accurate. We reserve the right to change, alter or modify the design and specifications of these products at any time without notice.18-1