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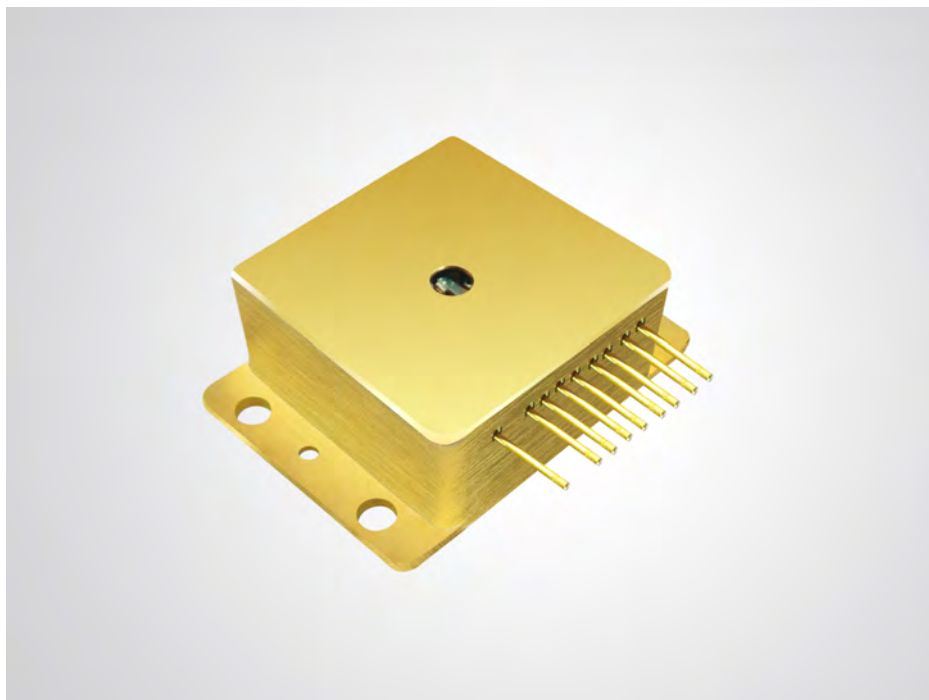
**LASER LAB SOURCE**  
marketplace for **Scientists & Engineers**

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**800.887.5065**

## 808nm 5W-10W HHL Packaged Window Output Diode Laser

**K808D09WN-5.00W    K808D09WN-10.00W**



### Features:

- ◆ 5W, 10W output power
- ◆ 808nm wavelength
- ◆ Window packages

### Applications:

- ◆ Solid-state laser pumping
- ◆ Medical use
- ◆ Materials processing
- ◆ Graphic arts

BWT Beijing's High Power Diode Laser Modules are manufactured by adopting specialized fiber-coupling techniques, resulting in volume products with a high efficiency, stability and superior beam quality. The products are achieved by transforming the asymmetric radiation from the laser diode chip into an output fiber with small core diameter by using special micro optics. Inspecting and burn-in procedures in every aspect come to a result to guarantee each product with the reliability, stability and long lifetime.

Our research staffs are constantly improving and innovating the processing technology in the producing process, based on the professional knowledge and experience accumulated in long-terms. We are also continuously developing new products to meet customers' specific needs.

At BWT Beijing, to provide high quality products with reasonable price is always our goal.

## 808nm 5W-10W HHL Packaged Window Output Diode Laser

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Specifications (25°C)		Symbol	Unit	K808D09WN-5.00W	K808D09WN-10.00W
<b>Optical Data</b>	CW-Output Power	$P_o$	W	5	10
	Center Wavelength <sup>(1)</sup>	$\lambda_c$	nm	808	
	Tolerance of $\lambda$	-	nm	$\pm 3, \pm 10$	
	Spectral Width (FWHM)	$\Delta\lambda$	nm	<3	
	Temperature Drift of $\lambda$	-	nm/°C	~0.3	
<b>Emitting Area</b>	Dimensions	$W \times H$	$\mu\text{m}$	200×1	400×1
<b>FWHM Beam Divergence</b>	Slow Axis Direction	$\theta_{//}$	degree	<10	
	Fast Axis Direction	$\theta_{\perp}$	degree	<40, <10, <2	
<b>Electrical Data</b>	Operating Current	$I_{op}$	A	5.0	10.0
	Threshold Current	$I_{th}$	A	0.8	1.5
	Conversion Efficiency	$\eta$	%	40~55	
	Slope Efficiency <sup>(2)</sup>	$\eta_D$	W/A	0.8~1.2	
	Operating Voltage	$V_{op}$	V	1.9	2.2
	Reverse Voltage	$V_{re}$	V	2	
<b>PD Data</b>	Current	$I_{mo}$	mA	0.20~1.50	
<b>TEC Data</b>	Max. Current	$I_t$	A	4.0	6.0
	Max. Voltage	$V_t$	V	9.8	
<b>Thermistor Data <sup>(2)</sup></b>	Thermistor	$R_0$	(K $\Omega$ )/ $\beta(25^\circ\text{C})$	10±5%/3477	
<b>Others</b>	Operating Temperature	$T_{op}$	°C	10~30	
	Storage Temperature	$T_{st}$	°C	-20~80	
	Expected Lifetime	MTTF	h	>10,000	
	Dimensions	-	mm	~44.5×31.8×18.0	
	Lead Soldering Temperature	$T_{is}$	°C	260(10 sec.)	

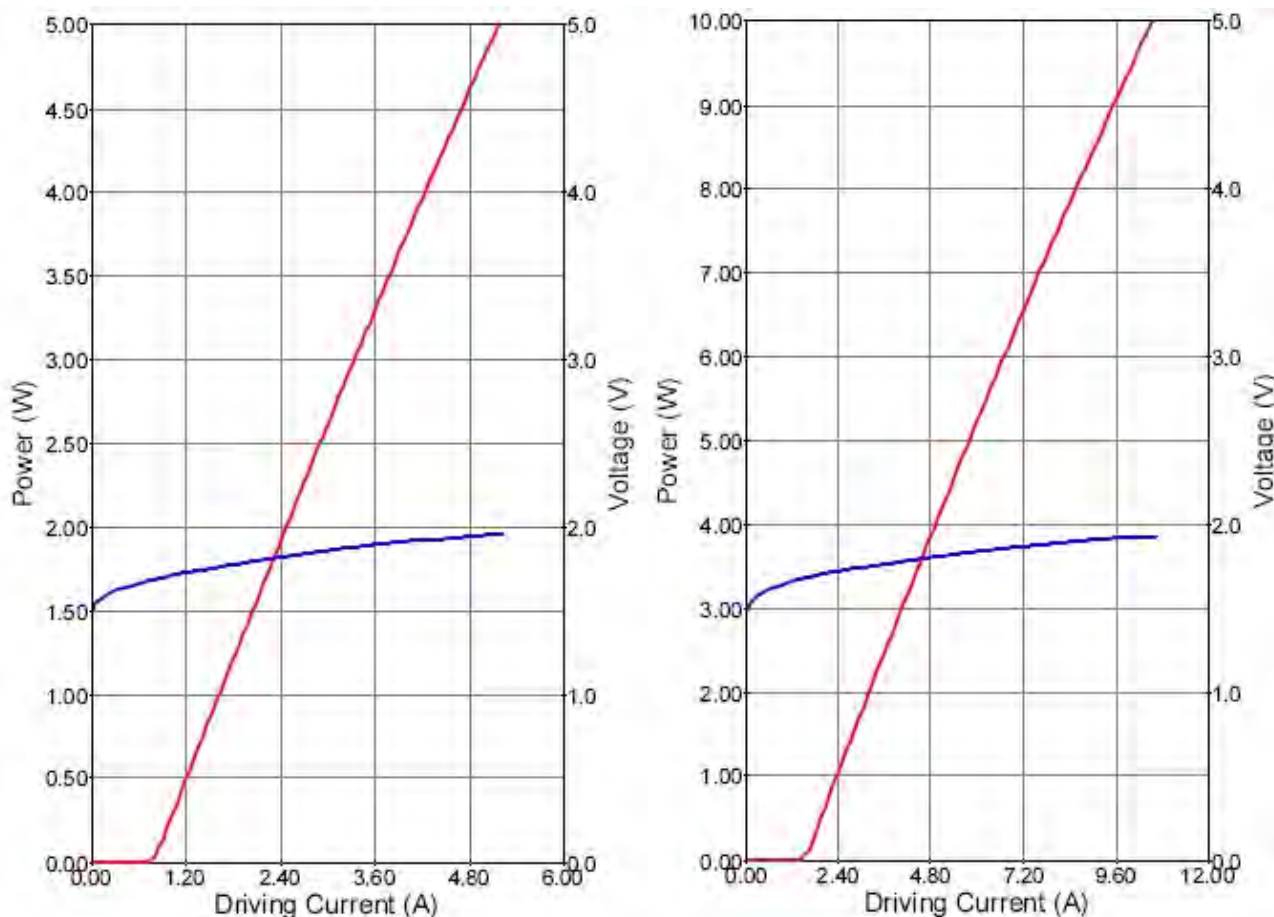
(1) other wavelengths available upon request

(2)  $R_t = R_0 \cdot \exp(\beta(1/T - 1/T_0))$ , ( $T_0 = 25^\circ\text{C} = 298\text{K}$ ).

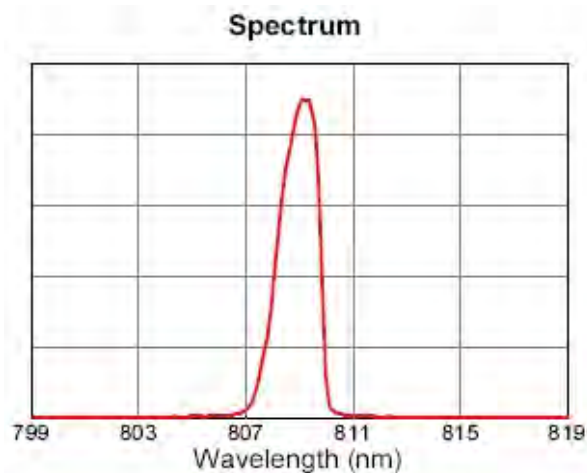
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### Characteristics



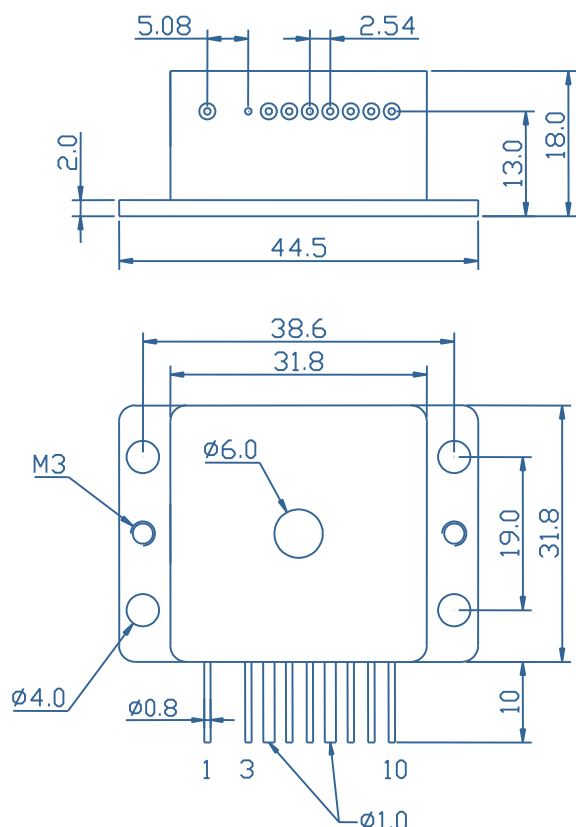
### Typ. Spectrum (T=25°C)



## 808nm 5W-10W HHL Packaged Window Output Diode Laser

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### Package Dimensions (mm)



Pin	Function	Pin	Function
1	TEC (-)	6	Thermistor
2	-	7	LD (-)
3	Case	8	PD (P)
4	LD (+)	9	PD (N)
5	Thermistor	10	TEC (+)

### 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°C 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 10°C~ 30°C.
- Storage: -20°C~ +80°C, all pins short-circuit.



Information and specifications contained herein are deemed to be reliable and accurate. BWT Beijing reserves the right to change, alter or modify the design and specifications of these products at any time without notice.