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635nm 5W Fiber Coupled Diode Laser

K635E08FN-5.000W



Features:

- ◆ 635nm wavelength
- ◆ 5W output power
- ◆ Standard fiber coupling for 105 μ m core diameter
- ◆ 0.22N.A.

Applications:

- ◆ Display
- ◆ Biochemical analysis
- ◆ Scientific research
- ◆ Medical use

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 our always goal.

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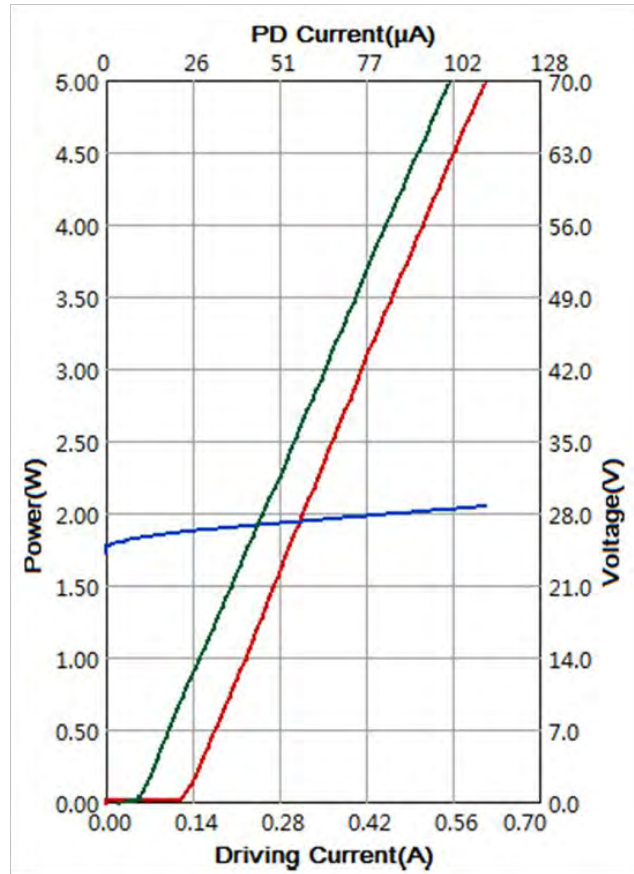
Specifications (25°C)		Symbol	Unit	K635E08FN-5.000W
Optical Data	CW-Output Power	P_o	W	5
	Center Wavelength	λ_c	nm	635
	Tolerance of λ	-	nm	±5
	Spectral Width (FWHM)	$\Delta\lambda$	nm	<3
Fiber Data ⁽¹⁾	Fiber Core Diameter	W_c	μm	105
	Fiber Numerical Aperture	N.A.	-	0.22
	Fiber Connector	-	-	SMA-905/FC/ST
Electrical Data	Operating Current	I_{op}	A	0.65
	Threshold Current	I_{th}	A	0.18
	Operating Voltage	V_{op}	V	28.6
PD Data	Current	I_{mo}	mA	0.20~2.00
Thermistor Data ⁽²⁾	Thermistor	R_t	(K Ω)/β(25°C)	10±5%/3477
Others	Operating Temperature	T_{op}	°C	10~30
	Storage Temperature	T_{st}	°C	-20~+70
	Expected Lifetime	MTTF	h	>5,000
	Dimensions (fiber and connector not included)	-	mm	74×43×42.9
	Lead Soldering Temperature	T_{is}	°C	260(10 sec.)

(1) Other fiber is available.

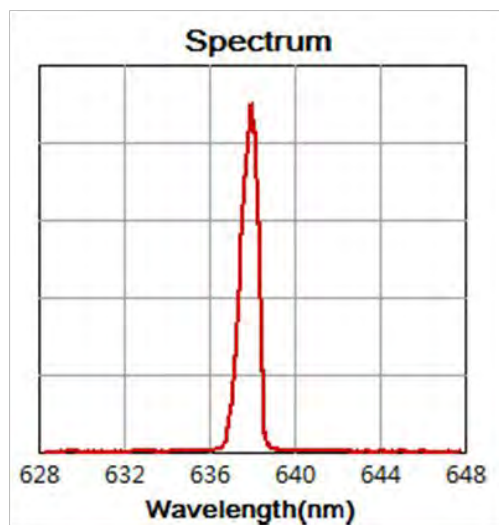
(2) $R_t=R_0 \cdot \exp(\beta(1/T-1/T_0))$, ($T_0=25^\circ\text{C}=298\text{K}$).

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Characteristics



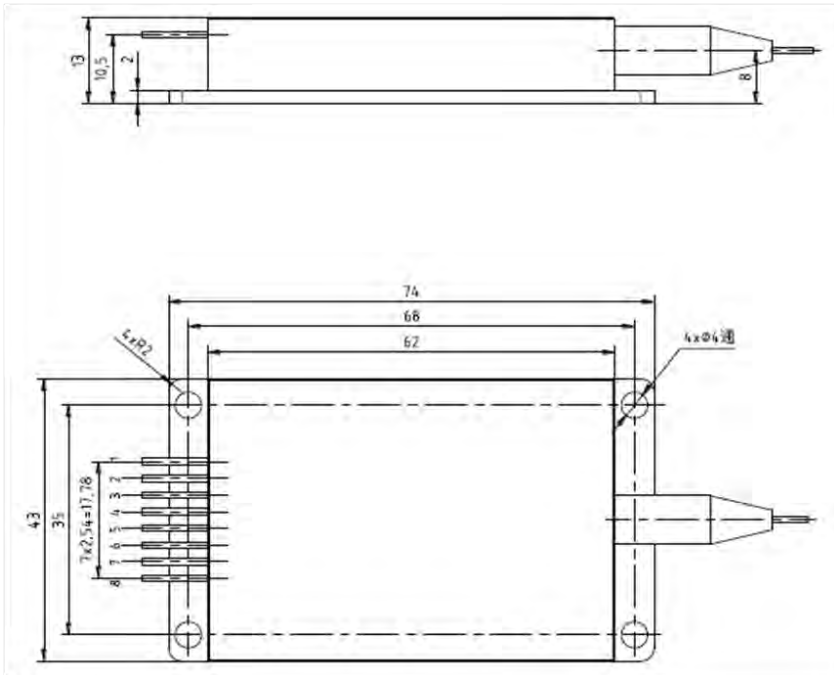
Typ. spectrum(T=25°C)



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Package Dimensions (mm)



Pins	Function
1	LD (+)
2	None
3	PD (N)
4	PD (P)
5	Thermistor
6	Thermistor
7	None
8	LD (-)

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.
- ◆ A minimum bend radius should be 300 times greater than the fiber cladding diameter.
- ◆ Operation temperature is 10°C~ 30°C.
- ◆ Storage: -20°C~ +70°C, all pins short-circuit.

