830nm Fiber Coupling Laser Module

Model：AL0830F1000P04-X-X

Features：

- Output Power 1W
- Fiber Core Diameter 50um
- 0.22 N.A
- Center Wavelength 830nm

Application：

- Laser Printing

Product Specifications:

Absolute maximum ratings

Parameter	Symbol	Unit	Absolute ratings
Reverse voltage	V_{re}	V	2
Operating temperature	T_{op}	℃	10～30
Storage temperature	T_{st}	℃	-20～80
Lead soldering temperature	T_{ls}	℃	260
Lead soldering time	t	sec.	10

Electro-Optical Characteristics(Tc=+25℃)：

Typical parameter		symbol	Unit	Min	Typ	Max
Optical parameter	Operating power	P_o	W	1.0	—	—
	Center wavelength	λ_c	nm	820	830	840
	Spectrum FWHM	△λ	nm	—	—	3
	Temperature coefficient	-	nm/℃	—	～0.3	—
Fiber parameter	Core diameter	W_c	um	—	50	—
	Numerical aperture	NA	-	—	0.22	—
	Connector type	ST, SC				
Electronic parameter	Operating current	I_{op}	A	—	1.20	1.35
	Threshold current	I_{th}	A	—	0.20	—
	Slope Efficiency（dP/dI）	η_D	W/A	0.80	0.90	—
	Operating voltage	V_{op}	V	—	1.8	—

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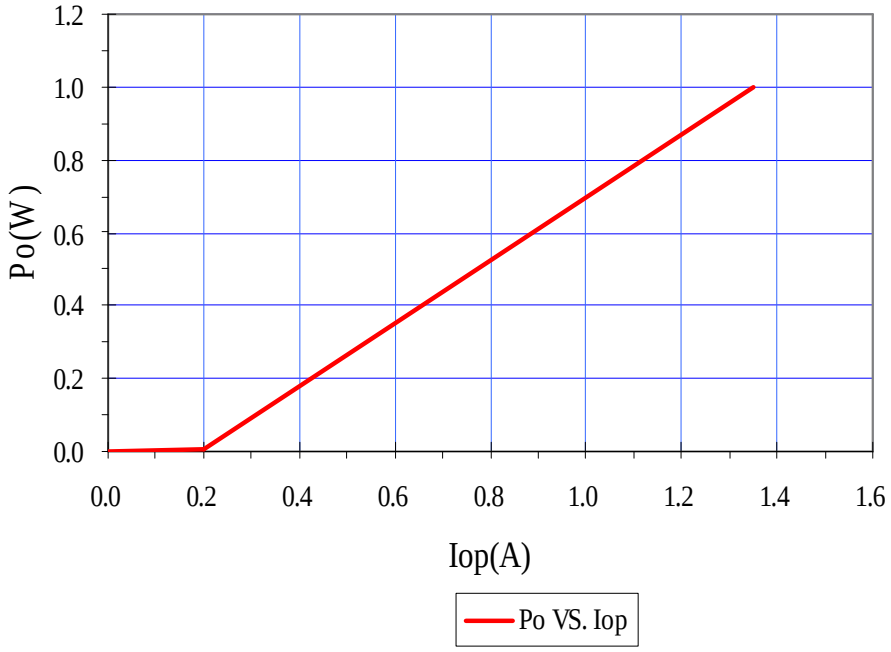
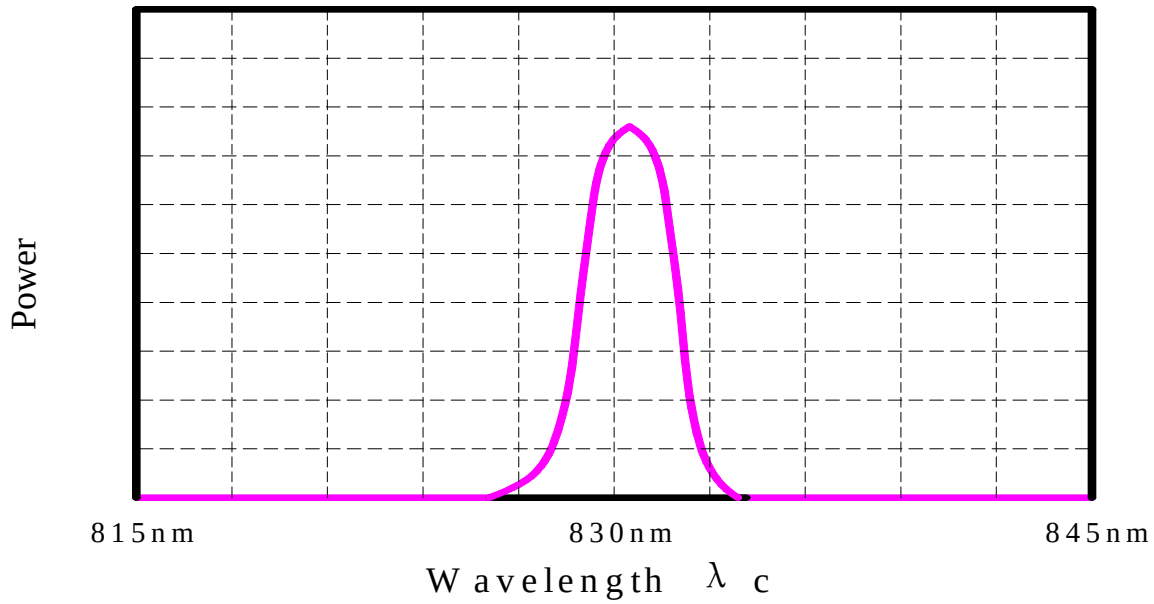
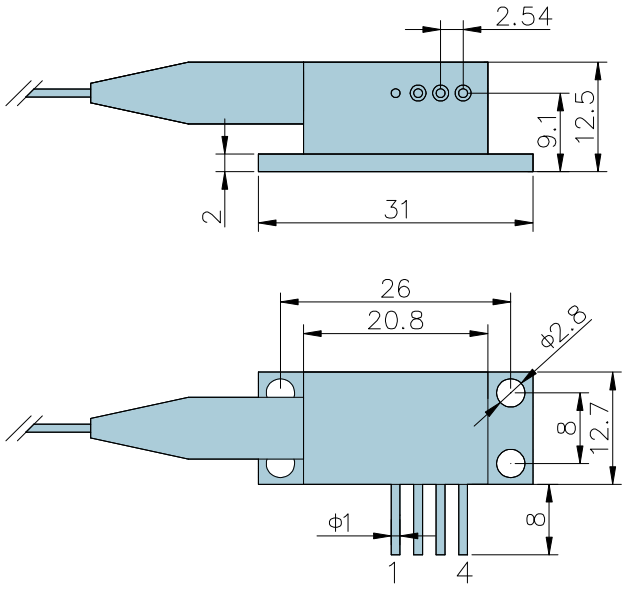
P-I curve:



Spectral curve:（T=25℃）



Outline Drawings (in mm):



PIN	1	2	3	4
	LD+	LD-		

Ordering information ：

AL0830F1000P04-X-X

- AOE LD
- Wavelength: 0830:830nm
- Chip structure: F:F-P LD
- Operating power: 1000:1000mW
- Package: P04:Pigtailed 4PIN package
- Fiber: 50:0.22;50um
- Connector: ST:ST connector; SC:SC connector

Precaution:

（1） The laser diodes should be handled in the same manner as ordinary semiconductor device to prevent the electro-static damages. For safety keeping and carrying,the modules should be packaged with ESD proof material. For assembling,the workbench,the soldering iron and the human body should be grounded.

（2） Please pay special attention to the atmosphere condition because the dew on the module may cause some damages.

（3） Under such a strong vibration environment as in automobile,the performance and reliability are not guaranteed.

（4） A voltage stabilizer should be taken into consideration for the power supply，and shock voltage should be avoided during the process of switching on and off of the supply in order to prevent the device from damaging.

（5） Pay attention to the dust polluting. The device may be damaged when operating in atmosphere because the dust may be absorbed onto the region of lighting under the action of electric field.

（6） Clean surface of optical fiber before using.

（7） Optical fiber bending diameter must be 300 times wider than the diameter of the optical fiber.

***Warning*：Direct exposure of one's eyes to the laser beam or long time exposure of one's skin to the beam must be avoided.**