820nm 2W Semiconductor Laser datasheet

P/N :WPFT-02A

Features

808nm Central wavelength

Output power 2W

Multimode fiber

Applications

Sensoring

Communication equipment

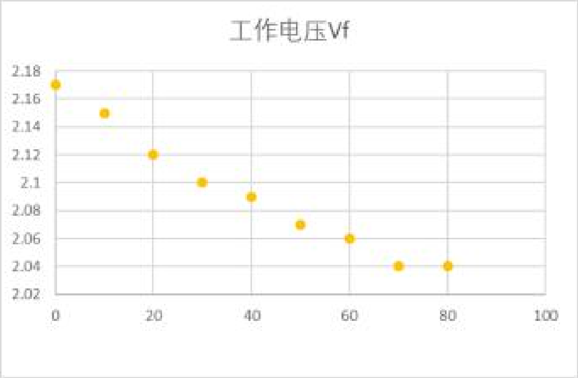
Scientific Research

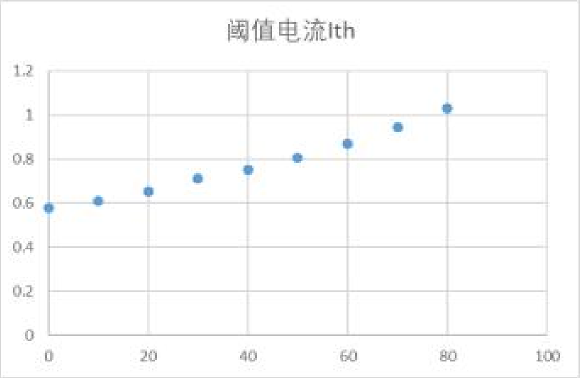
Specifications

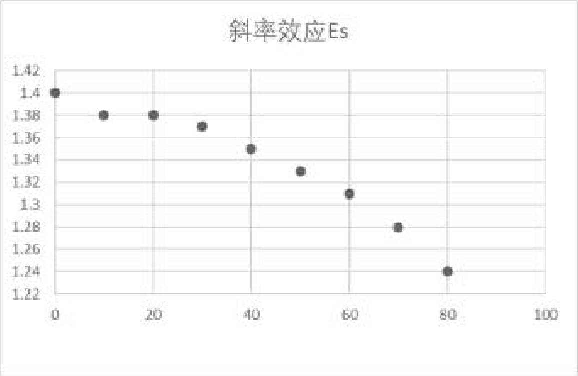
Electrical/Optical Characteristics (T_{sub}=25°C)		Symbol	Units	Value		
				Min	Typ.	Max
Optical Parameters	Output Power (CW)	P0	W	1.9	2	-
	Center Wavelength	λc	nm	808±10		
	Spectral Width (FWHM)	Δλ	nm	-	3	-
	Temperature Drift Coefficient	Δλ/ΔT	nm/℃	-	0.3	
Electrical parameters	Threshold current	Ith	A	-	0.65	
	Conversion Efficiency	η	-	-	35%	
	Operating Current	Iop	A	-	2.5	
	Operating Voltage	Vop	V	-	2.2	-
Fiber Optic Parameters	Core Diameter	Dcore	µm	-	105	-
	Cladding Diameter	Dclad	µm	-	125	-
	Coating Diameter	Dbuf	µm	-	250	
	Numerical Aperture	N.A.	-	-	0.22	-
	Connector	-	-	-	FC	-
Other parameters	Operating Temperature	Top	℃	10		30
	Storage Temperature	Tat	℃	-20	-	70
	Mean Time To Failure	MTTF	h	-	10000	-
	Soldering Temperature	T sold	℃	-	-	260

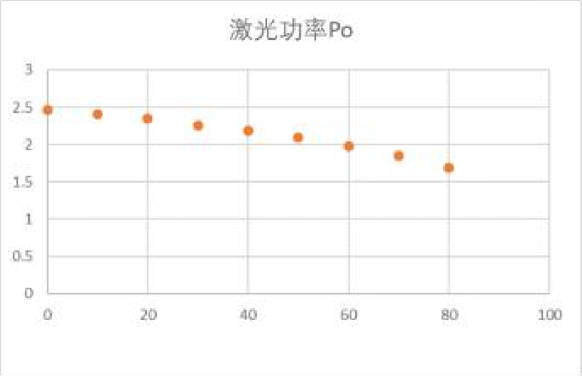
	Soldering Time	t	sec	-	-	10
	Size		mm	-	12*12*22	-

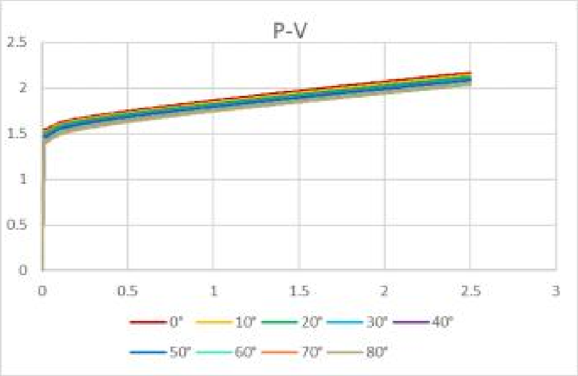
Temperature characteristic

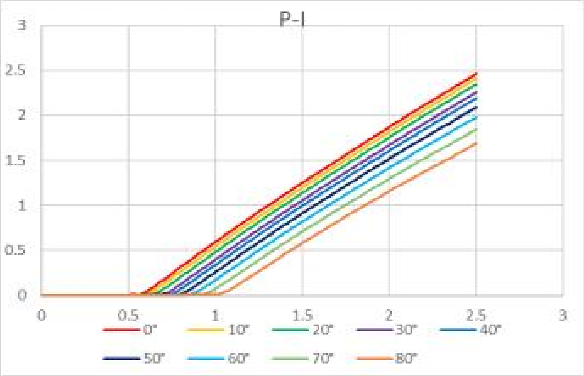




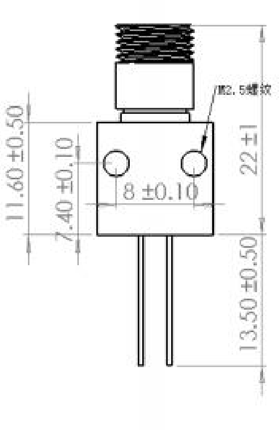


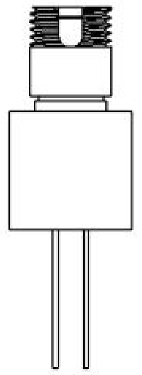


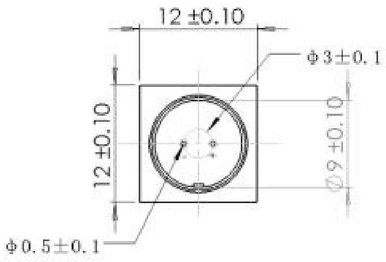




Outline Drawings(mm)







Cautions

1.Avoid direct laser beam exposure to eyes and skin while the laser is operating.

2.Electrostatic discharge (ESD) protection measures must be taken during transportation, storage, and use. Short-circuit protection is required between pins during transportation and storage.

3.Use soldering method to connect leads, keeping solder joints as close to the pin roots as possible. Maintain soldering temperature below 260°C and duration less than 10 seconds.

4.Operate within rated current and voltage specifications.

5.Use constant current power supply and avoid surge currents during operation.

6.Ensure proper heat dissipation while the laser is operating, maintaining case temperature between 10°C and 30°C.