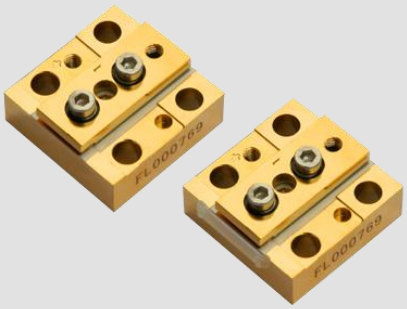
Conduction Cooled Single Bar Diode Laser (CW)



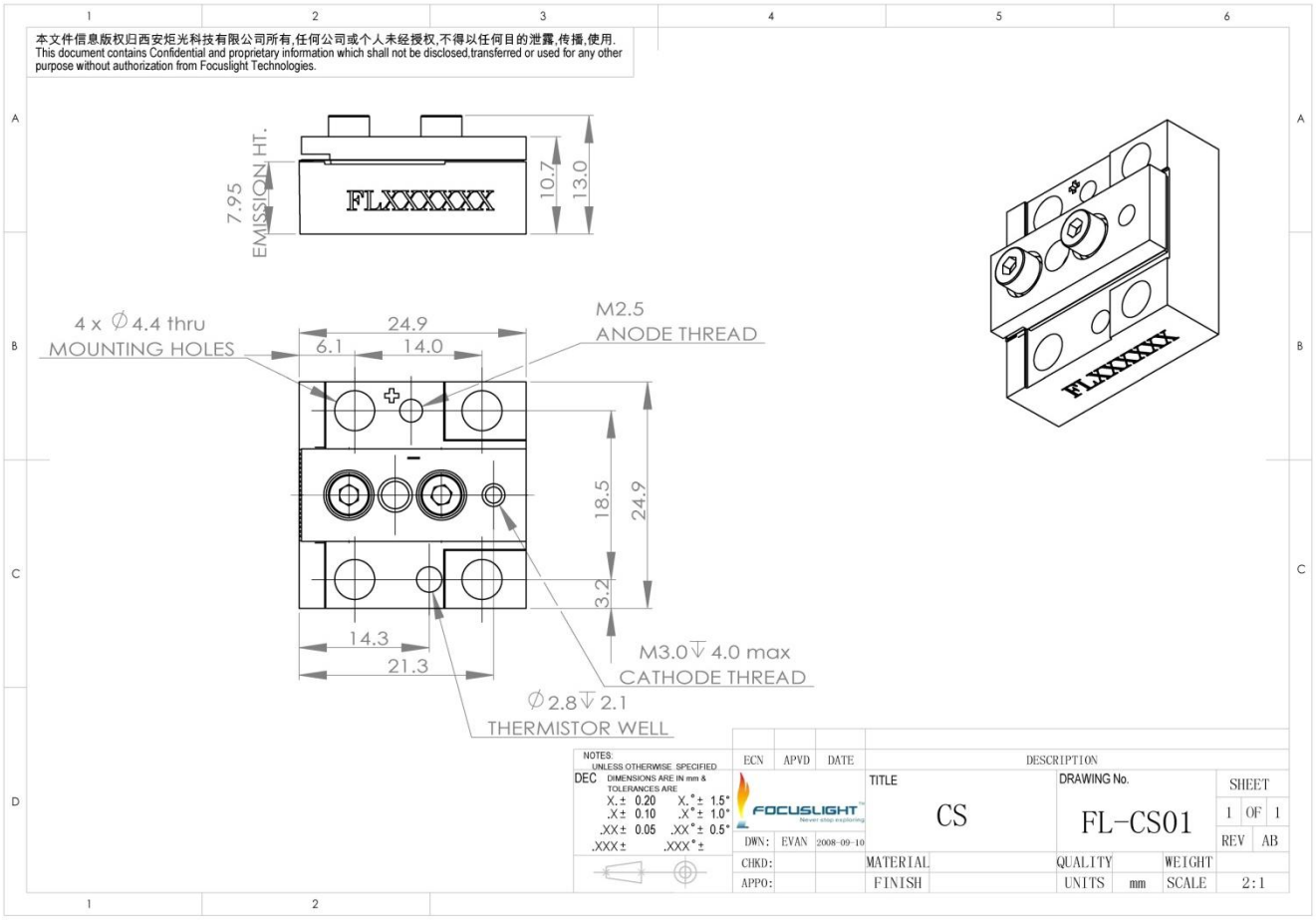
Features

- Long lifetime
- Low smile
- High power
- Narrow spectrum

Applications

- Pumping
- Printing
- Scientific research
- Medical
- Industry

Device Dimension (mm)



This structure drawing is only for reference. More structure drawings can be found below the datasheet. For any other special requirement, please feel free to contact us.

Conduction Cooled Single Bar Diode Laser (CW)

Specification

Module Type [1]	Units	FL-CS01-50-792	FL-CS01-40-808	FL-CS01-60-808	FL-CS01-60-825	FL-CS01-60-880
Optical [3,7]						
Center Wavelength λ	nm	792	808	808	825	880
Wavelength Tolerance	nm	±3	±3	±3	±3	±3
Output Power[2]	W	50	40	60	60	60
Spectral Width FWHM	nm	≤3	≤4	≤4	≤4	≤4
Spectral Width FW90%E	nm	≤6	≤6	≤6	≤7	≤6
Fast Axis Divergence(FWHM) [4,6]	degree	35	35	35	35	35
Slow Axis Divergence (FWHM)	degree	8	8	8	8	8
Polarization Mode	-	TE	TE	TE/TM	TM	TE
Wavelength Temp. Coefficient	nm/℃	~0.27	~0.28	~0.28	~0.28	~0.30
Electrical Parameters [3,7]						
Operating Current I_{op}	A	≤56	≤48	≤72	≤68	≤62
Threshold Current I_{th}	A	≤13	≤10	≤18	≤17	≤12
Operating Voltage V_{op}	V	≤2	≤2	≤2	≤2	≤1.8
Slope Efficiency	W/A	≥1	≥1.05	≥1.05	≥1.05	≥1.1
Power Conversion Efficiency	%	≥45	≥45	≥48	≥50	≥55
Thermal Parameters						
Operating Temperature	℃	15~30	15~30	15~30	15~30	15~30
Storage Temperature[5]	℃	0~55	0~55	0~55	0~55	0~55
Recommended Heatsink Capacity	W	≥80	≥80	≥120	≥120	≥120

[1]Explanation for the name of Module Type：FL(abbreviation of Focusligth) -CS01(structure code) -40(output power) - 808(center wavelength).
[2]Reduced lifetime if used above nominal operating conditions.
[3]Data at 25°C temperature, unless otherwise stated.
[4]For fast axis collimation: divergence <0.5°.
[5]A non-condensing environment is required for storage and operation below ambient dew point.
[6]For smile requirements, please contact us.
[7]If there are any other requirements, please contact us.

Conduction Cooled Single Bar Diode Laser (CW)

Specification

Module Type [1]	Units	FL-CS03-50-915	FL-CS01-60-915	FL-CS01-80-915	FL-CS01-60-940	FL-CS03-50-976
Optical [3,7]						
Center Wavelength λ	nm	915	915	915	940	976
Wavelength Tolerance	nm	±5	±5	±5	±5	±5
Output Power[2]	W	50	60	80	60	50
Spectral Width FWHM	nm	⩽4	⩽4	⩽4	⩽4	⩽4
Spectral Width FW90%E	nm	⩽6	⩽7	⩽6	⩽7	⩽6
Fast Axis Divergence(FWHM) [4,6]	degree	35	35	35	35	35
Slow Axis Divergence (FWHM)	degree	8	8	8	8	8
Polarization Mode	-	TE	TE	TE	TE	TE
Wavelength Temp. Coefficient	nm/℃	~0.32	~0.32	~0.32	~0.33	~0.34
Electrical Parameters[3,7]						
Operating Current I_{op}	A	⩽52	⩽60	⩽82	⩽60	⩽52
Threshold Current I_{th}	A	⩽6	⩽8	⩽9	⩽8	⩽5
Operating Voltage V_{op}	V	⩽1.85	⩽1.8	⩽1.8	⩽1.8	⩽1.85
Slope Efficiency	W/A	⩾1.05	⩾1.05	⩾1.1	⩾1.05	⩾1.05
Power Conversion Efficiency	%	⩾55	⩾55	⩾55	⩾55	⩾55
Thermal Parameters						
Operating Temperature	℃	15~30	15~30	15~30	15~30	15~30
Storage Temperature[5]	℃	0~55	0~55	0~55	0~55	0~55
Recommended Heatsink Capacity	W	⩾80	⩾120	⩾140	⩾120	⩾80

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Conduction Cooled Single Bar Diode Laser (CW)

Specification

Module Type [1]	Units	FL-CS01-60-976	FL-CS01-80-976	FL-CS01-20-1470	FL-CS01-20-1550
Optical [3,7]					
Center Wavelength λ	nm	976	976	1470	1550
Wavelength Tolerance	nm	±5	±5	±20	±20
Output Power[2]	W	60	80	20	20
Spectral Width FWHM	nm	⩽4	⩽4.5	⩽10	⩽15
Spectral Width FW90%E	nm	⩽8	⩽8	\	\
Fast Axis Divergence(FWHM) [4,6]	degree	35	35	32	32
Slow Axis Divergence (FWHM)	degree	8	8	8	8
Polarization Mode	-	TE	TE	TE	TE
Wavelength Temp. Coefficient	nm/℃	~0.34	~0.34	~0.4	~0.4
Electrical Parameters [3,7]					
Operating Current I_{op}	A	⩽65	⩽86	⩽60	⩽80
Threshold Current I_{th}	A	⩽7	⩽9	⩽5	⩽8
Operating Voltage V_{op}	V	⩽1.8	⩽1.8	⩽1.3	⩽1.3
Slope Efficiency	W/A	⩾1	⩾1	⩾0.35	⩾0.25
Power Conversion Efficiency	%	⩾55	⩾55	⩾25	⩾20
Thermal Parameters					
Operating Temperature	℃	15~30	15~30	15~30	15~30
Storage Temperature[5]	℃	0~55	0~55	0~55	0~55
Recommended Heatsink Capacity	W	⩾120	⩾140	⩾70	⩾70

[1]Explanation for the name of Module Type：FL(abbreviation of Focusligth) -CS01(structure code) -40(output power) - 808(center wavelength).
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Device Dimension (mm)