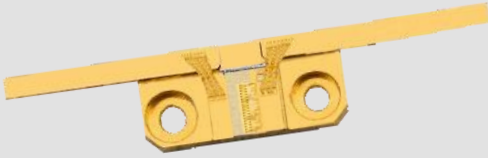


# F-mount Single Emitter Diode Laser (CW)



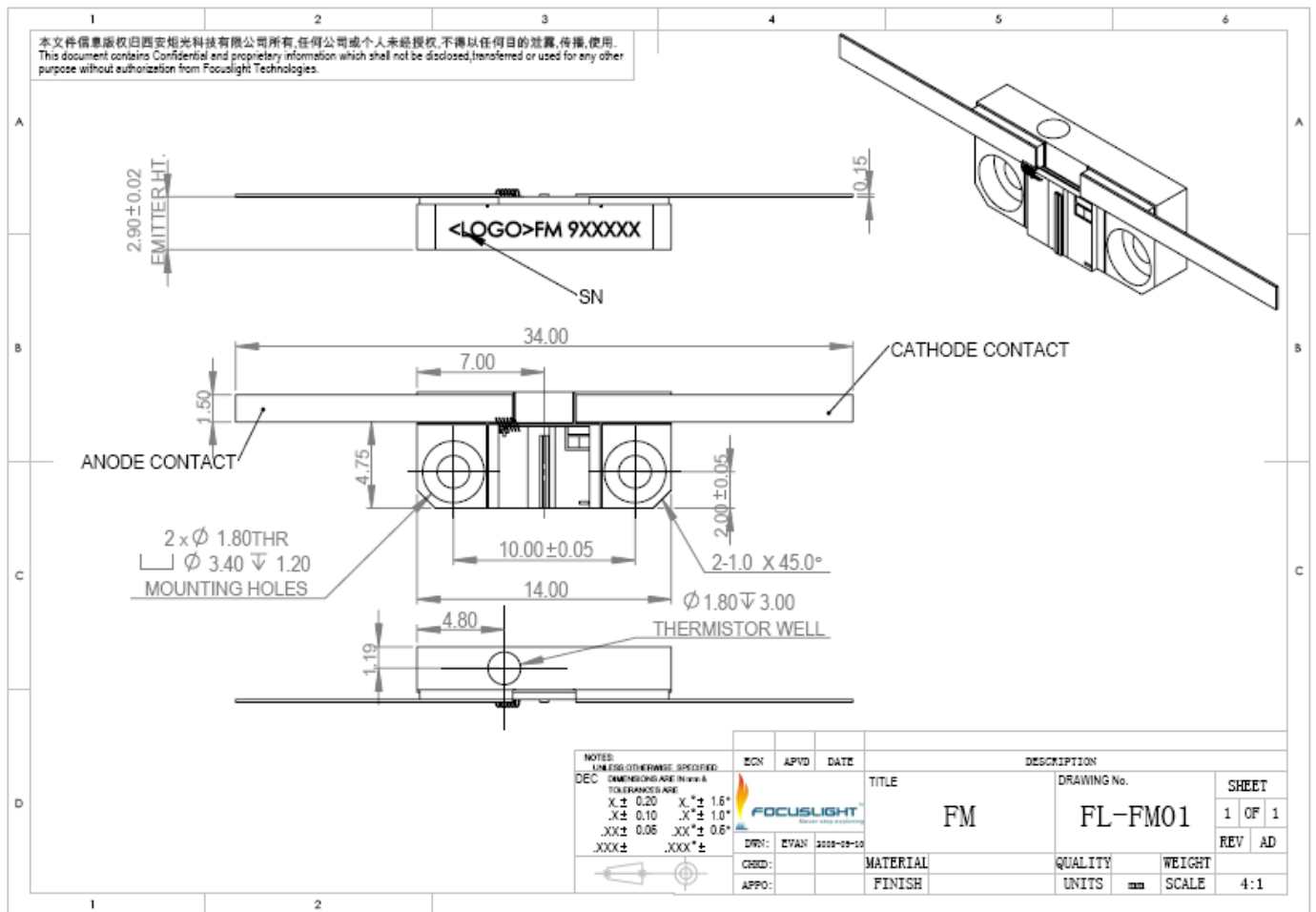
### Features

- High reliability
- High Stability
- Harsh environment applications
- High brightness
- AuSn bonding

### Applications

- Display
- Industry
- Scientific research
- Pumping
- Medical

## Device Dimension (mm)



This structure drawing is only for reference. For any other special requirement, please feel free to contact us.

# F-mount Single Emitter Diode Laser (CW)

## Specification

Module Type <sup>1</sup>	Units	FL-FM01- 0.35-635	FL-FM01- 0.5-635	FL-FM01- 5-808	FL-FM01- 8-808	FL-FM01- 10-808	FL-FM01- 5-915
<b>Optical</b> <sup>3,6</sup>							
Center Wavelength $\lambda$	nm	635	635	808	808	808	915
Wavelength Tolerance	nm	$\pm 5$	$\pm 5$	$\pm 3$	$\pm 3$	$\pm 3$	$\pm 5$
Output Power <sup>2</sup>	W	0.35	0.5	5	8	10	5
Spectral Width FWHM	nm	$\leq 1$	$\leq 1$	$\leq 3$	$\leq 3$	$\leq 3$	$\leq 4$
Spectral Width FW90%E	nm	$\leq 2$	$\leq 3$	$\leq 4$	$\leq 5$	$\leq 5$	$\leq 6$
Fast Axis Divergence(FWHM) <sup>4,6</sup>	degree	40	40	35	35	35	35
Slow Axis Divergence (FWHM)	degree	5	5	8	8	8	8
Polarization Mode	-	TE	TE	TE/TM	TE	TE	TE
Wavelength Temp. Coefficient	nm/ $^{\circ}$ C	$\sim 0.25$	$\sim 0.25$	$\sim 0.28$	$\sim 0.28$	$\sim 0.28$	$\sim 0.32$
<b>Electrical Parameters</b> <sup>3,6</sup>							
Operating Current $I_{op}$	A	$\leq 0.88$	$\leq 1.3$	$\leq 5.5$	$\leq 9.5$	$\leq 12$	$\leq 5.2$
Threshold Current $I_{th}$	A	$\leq 0.5$	$\leq 0.8$	$\leq 1$	$\leq 1.75$	$\leq 1.75$	$\leq 0.8$
Operating Voltage $V_{op}$	V	$\leq 2.3$	$\leq 2.3$	$\leq 2$	$\leq 2.1$	$\leq 2.2$	$\leq 2$
Slope Efficiency	W/A	$\geq 0.9$	$\geq 0.85$	$\geq 1.1$	$\geq 1$	$\geq 1$	$\geq 1$
Power Conversion Efficiency	%	$\geq 20$	$\geq 18$	$\geq 48$	$\geq 40$	$\geq 42$	$\geq 55$
<b>Thermal Parameters</b>							
Operating Temperature	$^{\circ}$ C	15~20	15~20	15~30	15~30	15~30	15~30
Storage Temperature <sup>5</sup>	$^{\circ}$ C	0~55	0~55	0~55	0~55	0~55	0~55
Recommended Heatsink Capacity	W	$\geq 1$	$\geq 2$	$\geq 10$	$\geq 20$	$\geq 20$	$\geq 10$

<sup>1</sup>Explanation for the name of Module Type: FL(abbreviation of Focuslight) - FM01(structure code) - 5(output power) - 808(center wavelength).

<sup>2</sup>Reduced lifetime if used above nominal operating conditions.

<sup>3</sup>Data at 25 $^{\circ}$ C temperature, unless otherwise stated.

<sup>4</sup>For fast axis collimation: divergence <5 $^{\circ}$ .

<sup>5</sup>A non-condensing environment is required for storage and operation below ambient dew point

<sup>6</sup>If there are any other requirements, please contact us.

# F-mount Single Emitter Diode Laser (CW)

## Specification

Module Type <sup>1</sup>	Units	FL-FM01-10-915	FL-FM01-5-940	FL-FM01-5-976	FL-FM01-10-976	FL-FM01-1-1470	FL-FM01-1-1550
<b>Optical</b> <sup>3,6</sup>							
Center Wavelength $\lambda$	nm	915	940	976	976	1470	1550
Wavelength Tolerance	nm	$\pm 5$	$\pm 5$	$\pm 5$	$\pm 5$	$\pm 20$	$\pm 20$
Output Power <sup>2</sup>	W	10	5	5	10	1	1
Spectral Width FWHM	nm	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 10$	$\leq 10$
Spectral Width FW90%E	nm	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$	/	/
Fast Axis Divergence(FWHM) <sup>4,6</sup>	degree	35	35	35	35	32	32
Slow Axis Divergence (FWHM)	degree	8	8	8	8	8	8
Polarization Mode	-	TE	TE	TE	TE	TE	TE
Wavelength Temp. Coefficient	nm/°C	-0.32	-0.33	-0.34	-0.34	-0.4	-0.4
<b>Electrical Parameters</b> <sup>3,6</sup>							
Operating Current $I_{op}$	A	$\leq 10$	$\leq 5.2$	$\leq 5.2$	$\leq 10$	$\leq 3$	$\leq 3.5$
Threshold Current $I_{th}$	A	$\leq 0.7$	$\leq 0.8$	$\leq 0.8$	$\leq 0.7$	$\leq 0.4$	$\leq 0.5$
Operating Voltage $V_{op}$	V	$\leq 2$	$\leq 2$	$\leq 2$	$\leq 2$	$\leq 1.5$	$\leq 1.5$
Slope Efficiency	W/A	$\geq 1.1$	$\geq 1$	$\geq 1$	$\geq 1.05$	$\geq 0.35$	$\geq 0.35$
Power Conversion Efficiency	%	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 33$	$\geq 24$
<b>Thermal Parameters</b>							
Operating Temperature	°C	15~30	15~30	15~30	15~30	15~20	15~20
Storage Temperature <sup>5</sup>	°C	0~55	0~55	0~55	0~55	0~55	0~55
Recommended Heatsink Capacity	W	$\geq 20$	$\geq 10$	$\geq 10$	$\geq 20$	$\geq 3$	$\geq 3$

<sup>1</sup>Explanation for the name of Module Type: FL(abbreviation of Focuslight) - FM01(structure code) - 5(output power) - 808(center wavelength).

<sup>2</sup>Reduced lifetime if used above nominal operating conditions.

<sup>3</sup>Data at 25°C temperature, unless otherwise stated.

<sup>4</sup>For fast axis collimation: divergence <5°.

<sup>5</sup>A non-condensing environment is required for storage and operation below ambient dew point

<sup>6</sup>If there are any other requirements, please contact us.



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