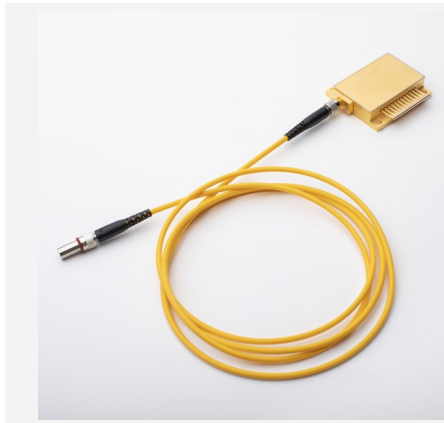


# High Power Fiber Coupled Diode Laser

## FCMSE58 Series



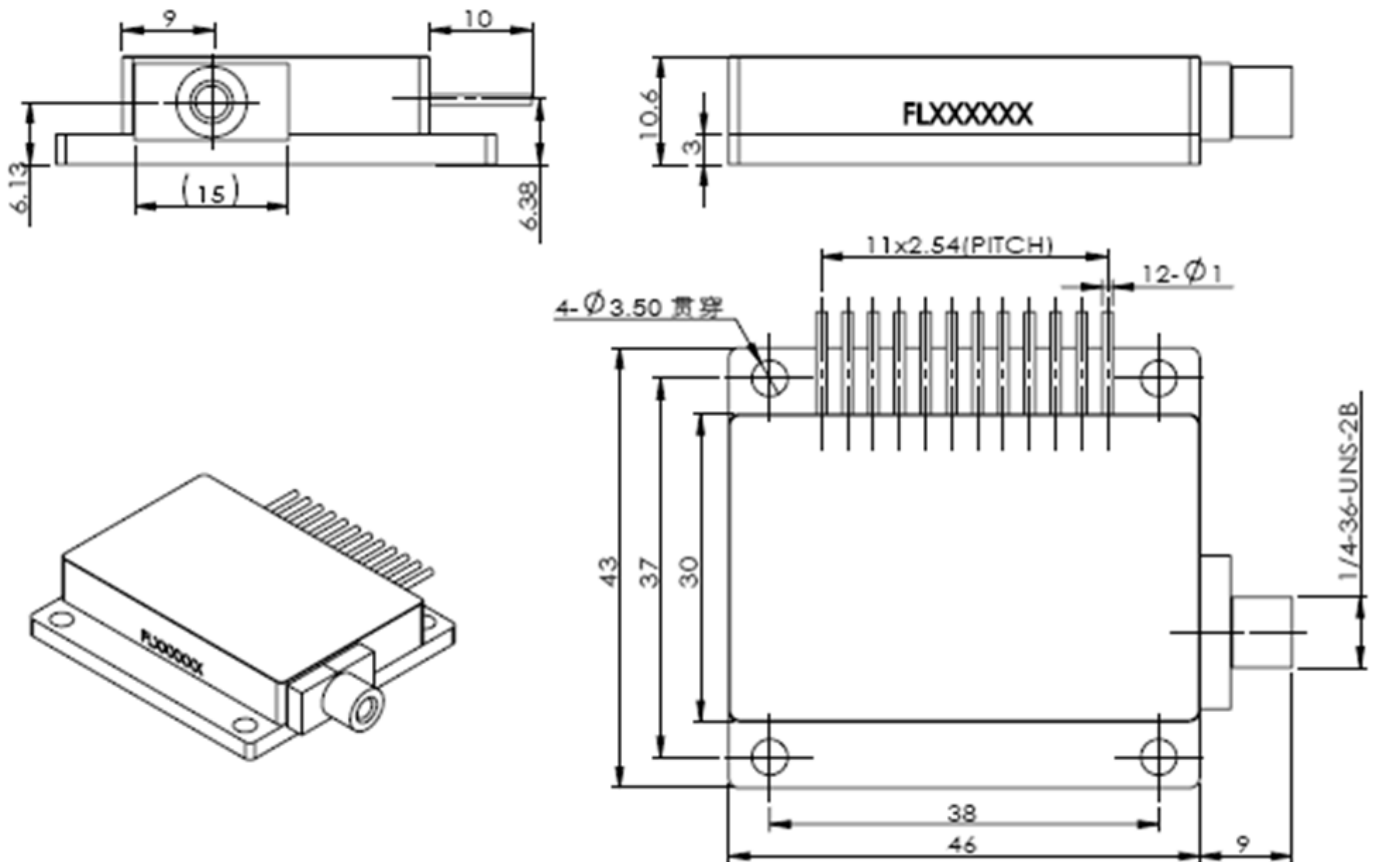
### Features

- High brightness
- High power
- Compact housing
- Hermetically sealed housing
- Conduction Cooling

### Applications

- Advanced Manufacturing
- Health
- Information Technology
- Scientific Research

### Product Dimensions (mm)



**Remark:** The structure drawing is for reference only. Please feel free to contact us for any special requirements.

## Product Specifications

Product Code	FCE000018	FCE300035 <sup>2</sup>	FCS300039 <sup>2</sup>
Part No. <sup>1</sup>	FL-FCMSE58-25-808-200	FL-FCMSE58-25-808-400	FL-FCMSE58-8(808)/15(1064)-200

Optical Data	Unit	Value			
CW-nominal output power	W	25	25	8	15
Centroid wavelength	nm	808	808	808	1064
Wavelength tolerance (±)	nm	3	10	10	10
Spectral width (FWHM)	nm	≤4	/	/	/
Wavelength Temp. drift	nm/°C	~0.28	~0.28	~0.34	~0.28
Feedback Protection (1040nm-1100nm)	dB	/	/	/	/

Fiber connection					
Fiber included		Yes	Yes	Yes	Yes
Fiber core diameter	μm	200	400	200	200
Numerical aperture		0.22	0.22	0.22	0.22
Fiber optic connector		SMA905	SMA905	SMA905	SMA905
Fiber length	m	1.5±0.1	3.0±0.2	1.5±0.1	1.5±0.1

Operation Conditions					
Nominal diode heat sink Temp.	°C	25	25	25	25
Diode heat sink operation Temp. <sup>3</sup>	°C	+20 ... +30	+20 ... +30	+20 ... +30	+20 ... +30
Minimum heat sink capacity	W	75	75	75	75

Electrical Data					
Max. operation current start of life	A	9.2	9.2	10.5	13.5
Typical threshold current	A	1.8	1.8	1.8	1.2
Typical operation voltage	V	8	8	2.1	4
Typical slope	W/A	≥2.8	≥2.8	≥0.8	≥0.55
Typical E/O efficiency	%	≥40	≥40	≥35	≥28

Package					
Dimensions	mm <sup>3</sup>	55×43×10.6	55×43×10.6	55×43×10.6	55×43×10.6
Weight basic package	g	110	110	110	110
Storage Temp.	°C	-20 ... +80	-20 ... +80	-20 ... +80	-20 ... +80

Additional Features					
Temp. sensors		NTC(10kΩ@25°C)	NTC(10kΩ@25°C)	NTC(10kΩ@25°C)	NTC(10kΩ@25°C)
Monitor diode (driver: 9V)	mA	/	/	0 ... 15	0 ... 15
Pilot beam (driver: 5V, < 30mA)		/	/	> 2mW, 670±20nm	> 2mW, 670±20nm
Fiber detection sensor		/	/	/	/

Measurement					
Fiber		AR coated, 200μm	AR coated, 400μm	AR coated, 200μm	AR coated, 200μm
Diode heat sink Temp.	°C	25	25	25	25

<sup>1</sup> Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber core diameter.

<sup>2</sup> Typical customization of products.

<sup>3</sup> Operation beyond recommended temperature may cause lifetime reduction or even damage to the product.



## Product Specifications

Product Code		FCE000016	FCE000023	FCE000035 <sup>2</sup>
Part No. <sup>1</sup>		FL-FCMSE58-16-976-200	FL-FCMSE58-30-976-200	FL-FCMSE58-16-980-200
Optical Data		Unit	Value	
CW-nominal output power	W	16	30	25
Centroid wavelength	nm	976	976	980
Wavelength tolerance (±)	nm	10	5	15
Spectral width (FWHM)	nm	≤5	≤6	/
Wavelength Temp. drift	nm/°C	~0.34	~0.34	~0.34
Feedback Protection (1040nm-1100nm)	dB	/	/	/
Fiber connection				
Fiber included		Yes	Yes	Yes
Fiber core diameter	µm	200	200	200
Numerical aperture		0.22	0.22	0.22
Fiber optic connector		SMA905	SMA905	SMA905
Fiber length	m	1.5±0.1	1.5±0.1	1.5±0.1
Operation Conditions				
Nominal diode heat sink Temp.	°C	25	25	25
Diode heat sink operation Temp. <sup>3</sup>	°C	+20 ... +30	+20 ... +30	+20 ... +30
Minimum heat sink capacity	W	75	75	75
Electrical Data				
Max. operation current start of life	A	10	9.5	10
Typical threshold current	A	0.7	0.7	0.7
Typical operation voltage	V	4	8	4
Typical slope	W/A	≥0.55	≥3.3	≥0.75
Typical E/O efficiency	%	≥43	≥47	≥45
Package				
Dimensions	mm <sup>3</sup>	55×43×10.6	55×43×10.6	55×43×10.6
Weight basic package	g	110	110	110
Storage Temp.	°C	-20 ... +80	-20 ... +80	-20 ... +80
Additional Features				
Temp. sensors		NTC(10kΩ@25°C)	NTC(10kΩ@25°C)	NTC(10kΩ@25°C)
Monitor diode (driver: 9V)	mA	0 ... 15	0 ... 15	0 ... 15
Pilot beam (driver: 5V, < 30mA)		> 2mW, 670±20nm	> 2mW, 670±20nm	> 2mW, 670±20nm
Fiber detection sensor		Yes	Yes	Yes
Measurement				
Fiber		AR coated, 200µm	AR coated, 200µm	AR coated, 200µm
Diode heat sink Temp.	°C	25	25	25

<sup>1</sup> Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber core diameter.

<sup>2</sup> Typical customization of products.

<sup>3</sup> Operation beyond recommended temperature may cause lifetime reduction or even damage to the product.

