

High Power Fiber Coupled Diode Laser FCMSE58 Series



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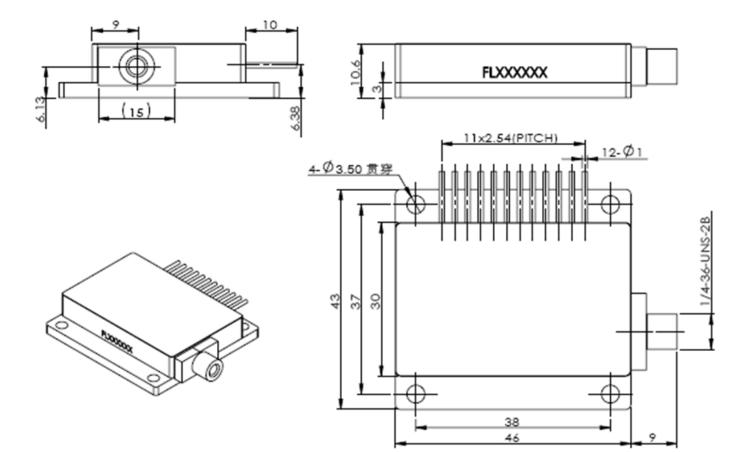
Features

- 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 ²	FCS300039 ²
Part No. ¹		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	1	1 1
Wavelength Temp. drift	nm/°C	~0.28	~0.28	~0.34 ~0.28
Feedback Protection (1040nm-1100nm)	dB	1	1	1
Fiber connection				
Fiber included		Yes	Yes	Yes
Fiber core diameter	μm	200	400	200
Numerical aperture		0.22	0.22	0.22
Fiber optic connector		SMA905	SMA905	SMA905
Fiber length	m	1.5±0.1	3.0±0.2	1.5±0.1
Operation Conditions				
Nominal diode heat sink Temp.	°C	25	25	25
Diode heat sink operation Temp. ³	°C	+20 +30	+20 +30	+20 +30
Minimum heat sink capacity	W	75	75	75
Electrical Data				
Max. operation current start of life	А	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	mm³	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	1	1	0 15
Pilot beam (driver: 5V, < 30mA)		/	1	> 2mW, 670±20nm
Fiber detection sensor		1	/	1
Measurement				
Fiber		AR coated, 200µm	AR coated, 400µm	AR coated, 200µm
Diode heat sink Temp.	°C	25	25	25

¹ Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber core diameter.

 $^{\rm 2}$ Typical customization of products.

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





Product Specifications

Product Code		FCE000016	FCE000023	FCE000035 ²
Part No. ¹		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	1
Wavelength Temp. drift	nm/°C	~0.34	~0.34	~0.34
Feedback Protection (1040nm-1100nm)	dB	1	1	1
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. ³	°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	А	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	mm³	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

¹Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber core diameter.

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