

■ Features

- Single bar module
- High optical power: CW 50 W (L8413-50-808),
CW 60 W (L8413-60-940)
- High stability
- Long life
- Compact

■ Applications

- Measuring instrument
- Pumping source for solid state laser
- IR illumination for surveillance
- Heat treatment



■ Option

Possible to attach a fast axis collimation (FAC) lens

- Beam spread angle (fast axis) 1 ° (typ)
- Coupling efficiency > 95 °

■ Specifications

[T_{op(c)} = 25 °C]

Parameter	Symbol	Conditions	Value		Unit	
			L8413-50-808	L8413-60-940		
Central emission wavelength	λ_c	Φ_e *1)	808 ± 5	940 ± 5	nm	
Spectral half-width	$\Delta\lambda$	Φ_e *1), FWHM	2	4	nm	
Radiant output power	Φ_e	I_f *2)	50	—	W	
		I_f *2)	—	60		
Operating voltage	V _{op}	Φ_e *1)	<2		V	
Beam spread angle	Horizontal (Slow)	$\theta_{//}$	Pulsed measurement *3), FWHM	<10	<11	° (degree)
	Vertical (Fast)	θ_{\perp}		<30	<36	
Lasing threshold current	I _{th}	—	17	7	A	

*1) General operating condition: Φ_e = 50 W (L8413-50-808), Φ_e = 60 W (L8413-60-940)

*2) General operating condition: I_f = 60 A (L8413-50-808), I_f = 61 A (L8413-60-940)

*3) I_{fp} = 60 A, t_w = 100 μs, f_r = 100 Hz (L8413-50-808), I_{fp} = 61 A, t_w = 100 μs, f_r = 100 Hz (L8413-60-940)

■ Cooling conditions and surroundings

Parameter	Description / Value	Unit
Coolant	Passive cooling (heat conductive cooling)	—
Operating heatsink temperature	+15 to +30	°C
Storage temperature	-20 to +55	°C

CW Laser Diode Bar Module L8413 series

Figure1: Radiant output power vs. Forward current (typ.)

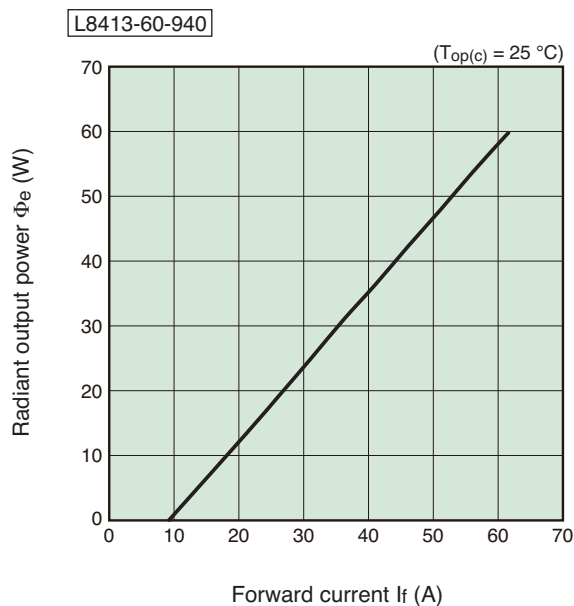


Figure2: Typical emission spectrum

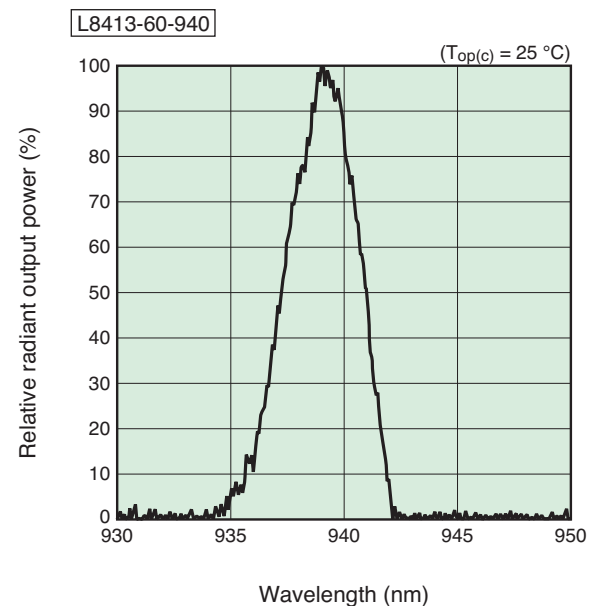
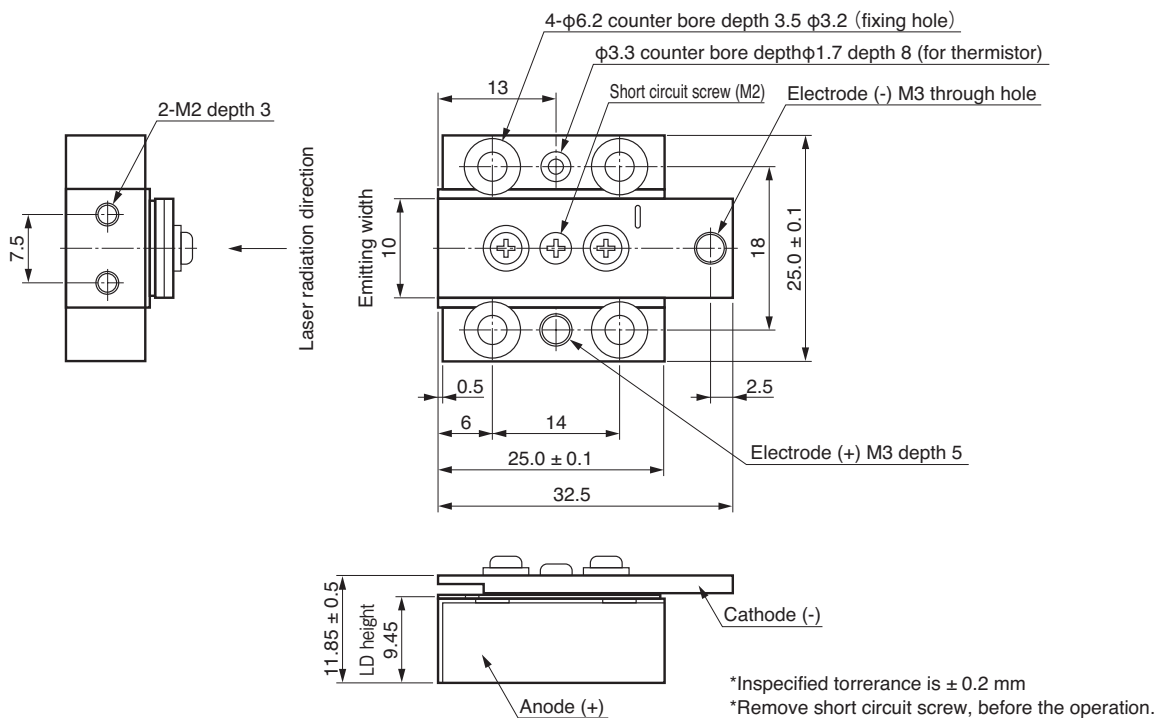


Figure3: Dimensional outline (unit: mm)



- When using laser products, classify the laser products in accordance with IEC 60825-1. Take adequate for classification.
- Observe the latest regulations and standards of each country and region.

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