

### FEATURES

- High optical power: CW 60 W
- 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

#### CW operation

[T<sub>op</sub>(hs) = 25 °C]

Parameter	Symbol	Conditions	Value			Unit
			L8413-50-808	L8413-60-940	L8413-50-980	
Peak emission wavelength	$\lambda_p$	$\Phi_e = 50 \text{ W}, 60 \text{ W}$	808	940	980	nm
Tolerance of $\lambda_p$	—	$\Phi_e = 50 \text{ W}, 60 \text{ W}$	±5			nm
Spectral radiation bandwidth	$\Delta\lambda$	FWHM	3	4		nm
Radiant output power	$\Phi_e$	I <sub>f</sub> = 60 A	50	—	—	W
		I <sub>f</sub> = 63 A	—	60	—	
		I <sub>f</sub> = 65 A	—	—	60	
Forward voltage	V <sub>f</sub>	$\Phi_e = 50 \text{ W}$	<2			V
		$\Phi_e = 60 \text{ W}$	<2			
Beam spread angle	Parallel (slow)	FWHM	<10			° (degree)
	Vertical (fast)					
Lasing threshold current	I <sub>th</sub>	—	17	9	8	A
Expected life time	—	—	15,000	20,000		hour

### COOLING CONDITIONS AND SURROUNDINGS

Parameter	Description / Value	Unit
Coolant	Passive cooling (heat conductive cooling)	—
Operating heatsink temperature	+5 to +25	°C
Storage temperature	-20 to +40	°C

# High-power Laser Diode CW Single Bar Module L8413 Series

Figure 1: Radiant output power vs. Forward current (typ.)

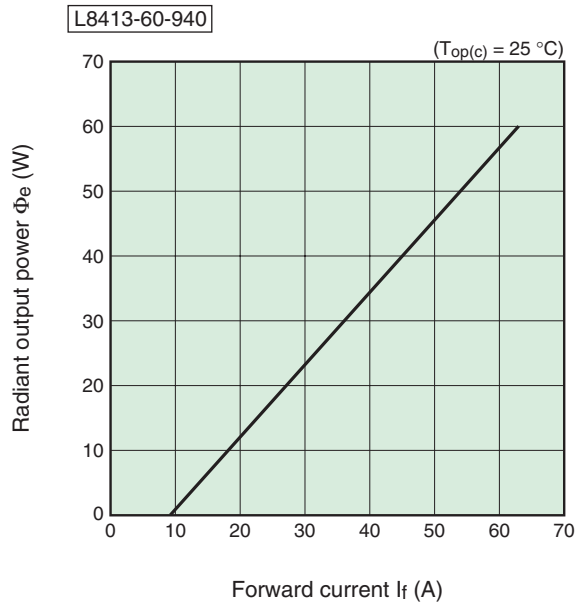


Figure 2: Typical emission spectrum

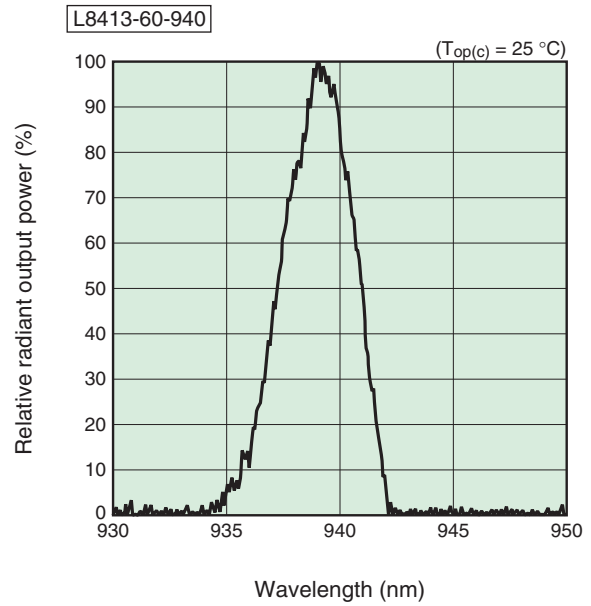
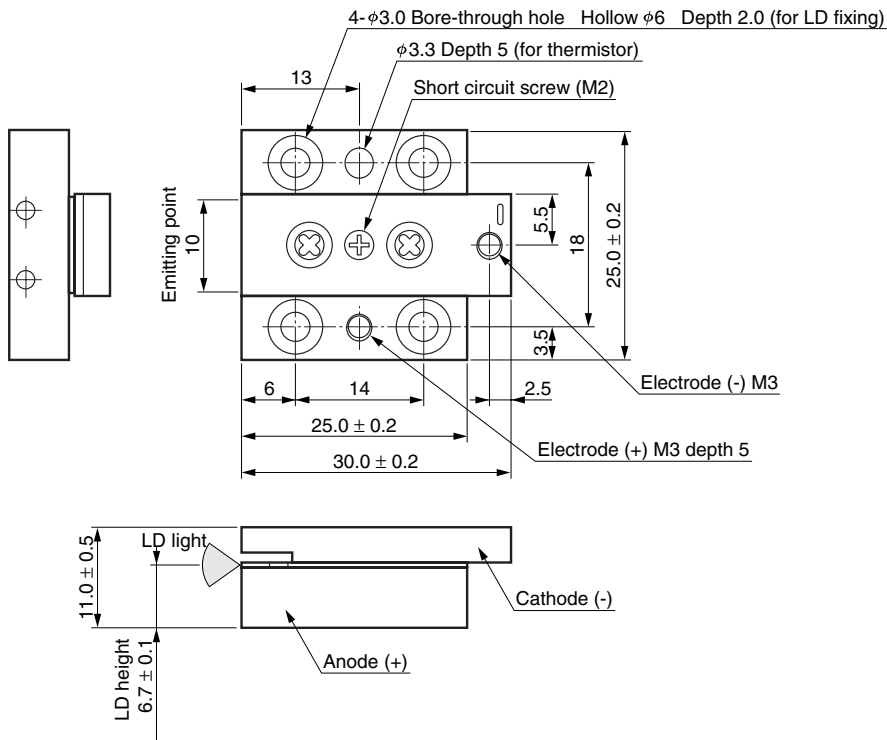


Figure 3: Dimensional outline (unit: mm)



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

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