

### FEATURES

- High optical power: CW 100 W/bar
- 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

[Temperature of coolant (IN): 20 °C, Flow rate: 4.0 L/min]

Parameter	Symbol	Conditions	Value			Unit
			L11408-15-808	L11408-15-940	L11408-15-980	
Peak emission wavelength	$\lambda_p$	$\Phi_e = 0.9 \text{ kW}, 1.5 \text{ kW}$	808	940	980	nm
Tolerance of $\lambda_p$	—	$\Phi_e = 0.9 \text{ kW}, 1.5 \text{ kW}$	±5			nm
Spectral radiation bandwidth	$\Delta\lambda$	FWHM	4			nm
Radiant output power	$\Phi_e$	$I_f = 70 \text{ A}$	0.9	—	—	kW
		$I_f = 110 \text{ A}$	—	1.5	1.5	
Forward voltage	$V_f$		<30			V
Beam spread angle	Parallel (Slow)	FWHM	<10			° (degree)
	Vertical (Fast)					
Lasing threshold current	$I_{th}$	—	13	12		A
Expected life time	—	—	15,000	20,000		hour

\* Max. No. of Stack 32

\* Stack pitch 1.58 mm

### COOLING CONDITIONS AND SURROUNDINGS

Parameter	Description / Value	Unit
Coolant	Deionized water	—
Electric conduction ratio	0.5 to 1.2	$\mu\text{S/cm}$
Permissible particle size	30	$\mu\text{m}$
Temperature range of coolant	+5 to +30	°C
Flow rate per bar	0.25	L/min
Water pressure	<0.4	MPa

# High-power Laser Diode CW Stack Bar Module L11408 Series

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

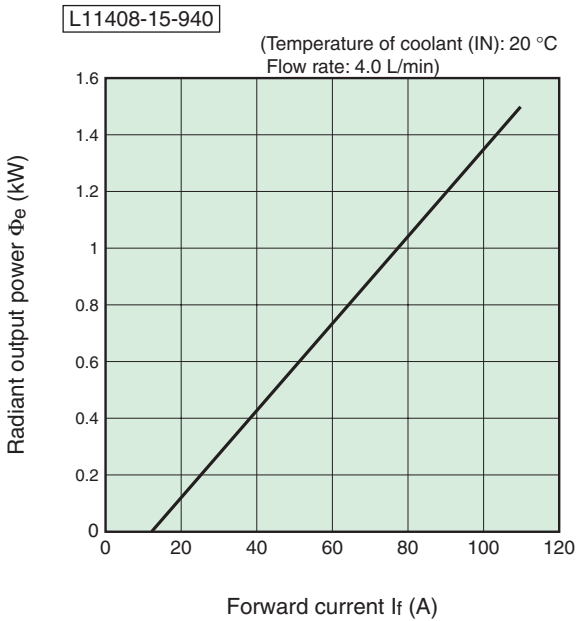


Figure 2: Typical emission spectrum

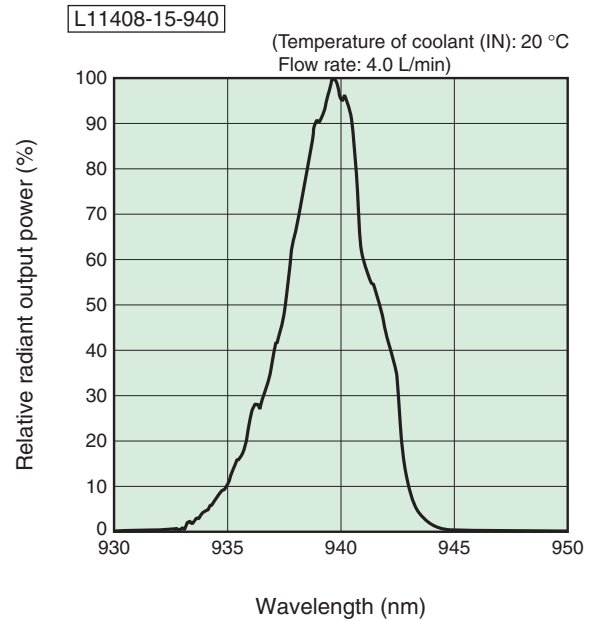
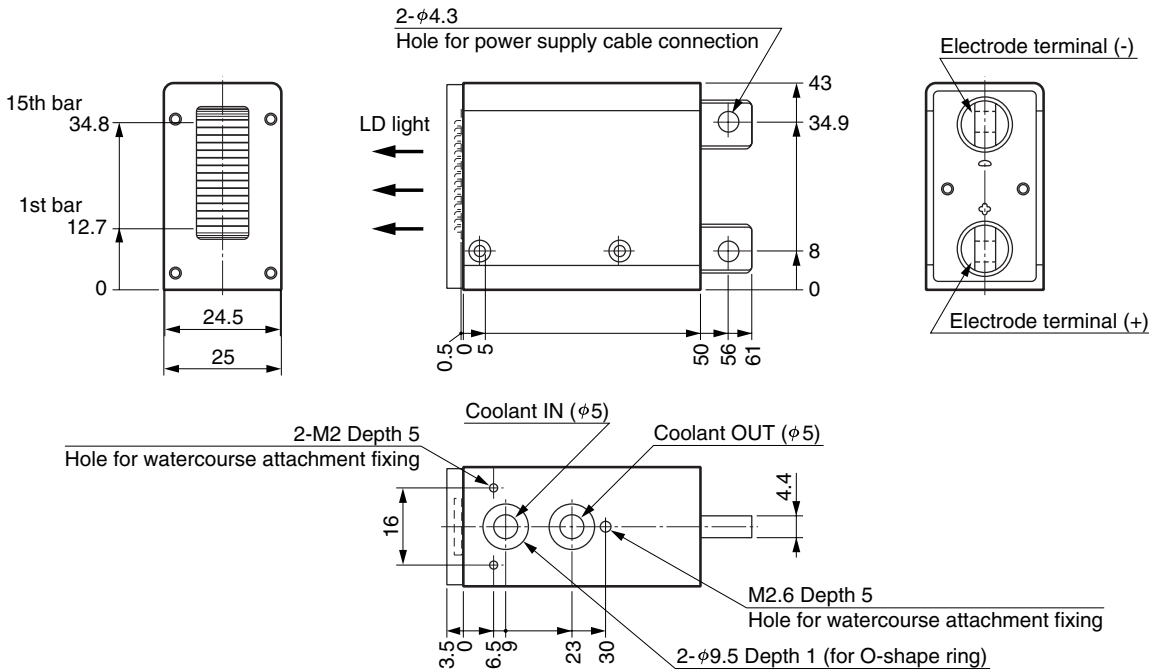


Figure 3: Dimensional outline (unit: mm)



\* 1) Tolerance  $\pm 0.2$

\* 2) Recommendation for O-shape ring:  $\phi 1.5$  mm, Inner diameter 6.5 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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Cat. No. LLDM2005E01  
JUL. 2012 IP