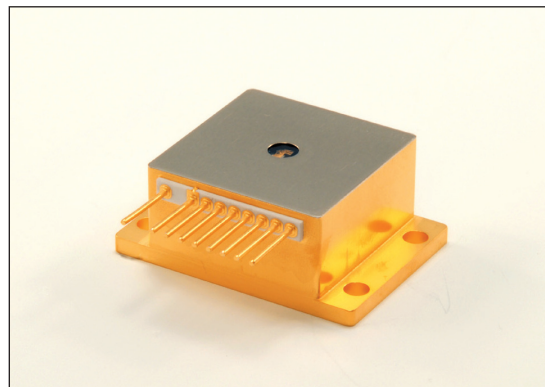


■ Features

- High radiant output power (CW) : 5 W
- High performance : Peltier element built-in
- Long life

■ Applications

- Processing (welding, soldering)
- Annealing
- Pumping source for solid state lasers
- Medical instrument



■ Absolute maximum ratings (Except temperature item, $T_{th}= 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Radiant output power	Φ_e	5.5	W
Forward current	I_f	6.2	A
Reverse voltage	V_r	2	V
Operating temperature	$T_{op(c)}$	+10~+30	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-40~+80	$^{\circ}\text{C}$
Built-in peltier supply current	I_{pe}	5.6	A
Thermistor power dissipation	-	3	mW

■ Characteristics ($T_{th}= 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Conditions	Value			Unit
			Min.	Typ.	Max.	
Radiant output power	Φ_e	$I_f = 5.6\text{ A}$	-	5	-	W
Lasing threshold current	I_{th}	-	-	1	-	A
Operating current	I_{op}	$\Phi_e = 5\text{ W}$	-	5.6	-	A
Operating voltage	V_{op}		-	2	-	V
Peak emission wavelength	λ_p		798	808	818	nm
Spectral radiation half bandwidth	$\Delta\lambda$		-	2	-	nm
Emitting area size	-	Value at designing	-	200×1	-	μm
Beam spread angle	Parallel	$\Phi_e = 5\text{ W FWHM}$	-	8	-	$^{\circ}(\text{degree})$
	Vertical		θ_{\perp}	-	32	-
Thermistor	Resistance	25 $^{\circ}\text{C}$	-	10	-	k Ω
	B constant	-	-	3450	-	K
Built-in peltier voltage	V_{pe}	-	-	-	9	V
Weight	-	-	-	150	-	g

CW laser diodes L9777-02

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

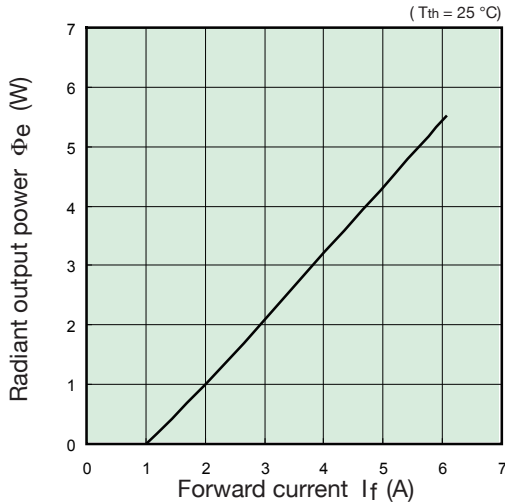


Figure 2: Emission spectrum (Typ.)

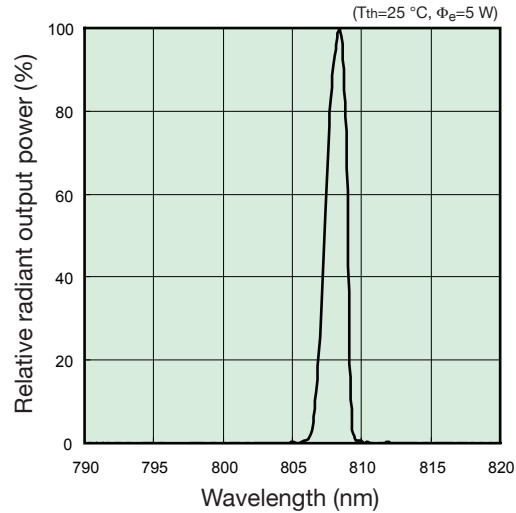


Figure 3: Directivity (Typ.)

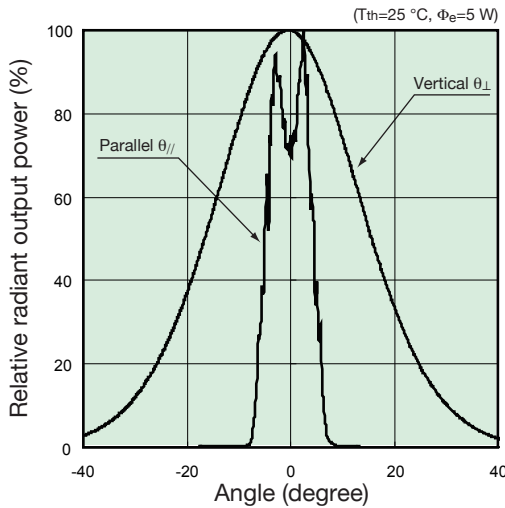
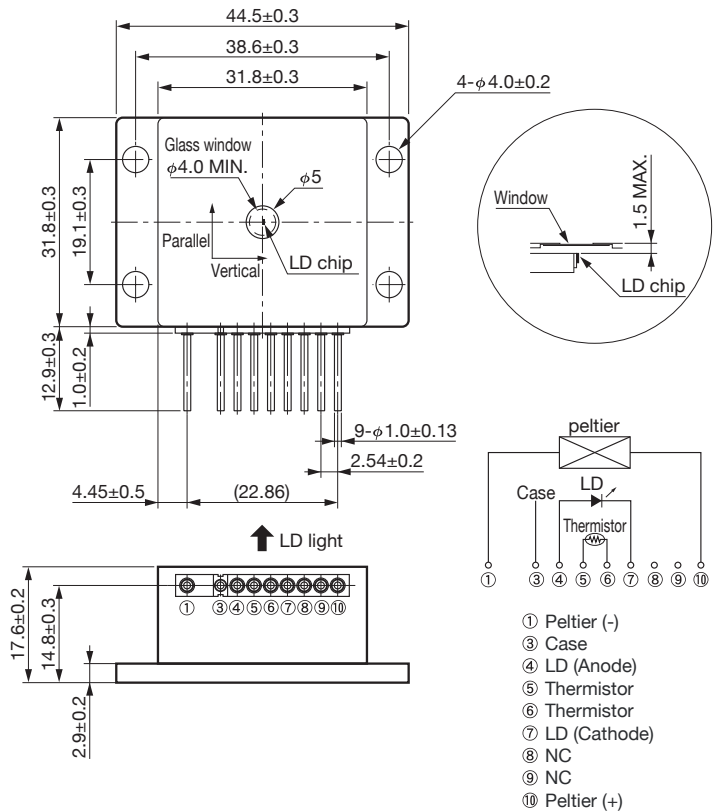


Figure 4: Dimensional outline (unit : mm)



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