

■FEATURES

- Radiant output power (CW): 1 W
- Peak emission wavelength: 830 nm
- Emitting area size: 50 μm $\times$ 1 μm

■APPLICATIONS

- Pumping source for solid state laser
- Processing
- Medical instrument
- Measuring instrument



■ABSOLUTE MAXIMUM RATINGS ($T_{\text{op}}(\text{C}) = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Radiant output power	Φ_e	35	mW
Forward current	I_f	140	mA
Reverse voltage	V_r	1.5	V
Operating temperature	$T_{\text{op}}(\text{C})$	0 to +50	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-20 to +80	$^{\circ}\text{C}$

■ELECTRICAL AND OPTICAL CHARACTERISTICS ($T_{\text{op}}(\text{C}) = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Conditions	Value			Unit
			Min.	Typ.	Max.	
Radiant output power	Φ_e	$I_f = 1.2\text{ A}$	—	1	—	W
Forward current	I_{op}	$\Phi_e = 1\text{ W}$	—	1.2	—	A
Peak emission wavelength	λ_c		—	830	—	nm
Spectral radiation half bandwidth	$\Delta\lambda$		—	2	—	nm
Forward voltage	V_{op}		—	2	—	V
Beam spread angle	Parallel	$\Phi_e = 1\text{ W}$ FWHM	—	8	—	degree
	Vertical		—	32	—	degree
Emitting area	—	Value at designing	—	50 $\times$ 1	—	μm
Lasing threshold current	I_{th}	—	—	0.35	—	A

Lateral multimode (broad stripe) CW Laser Diode L9277 Series

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

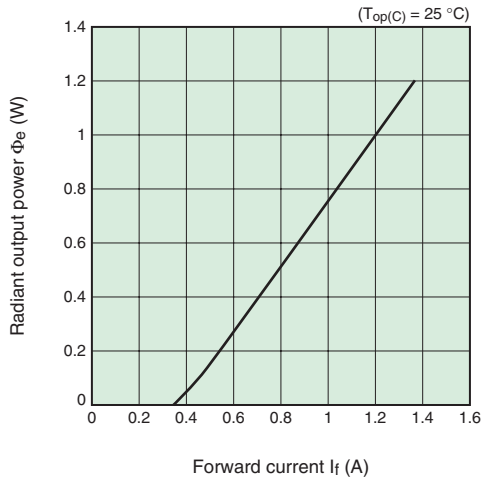


Figure 2: Typical emission spectrum

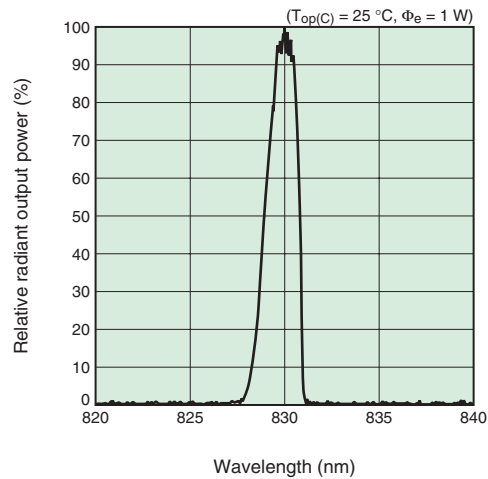


Figure 3: Directivity (typ.)

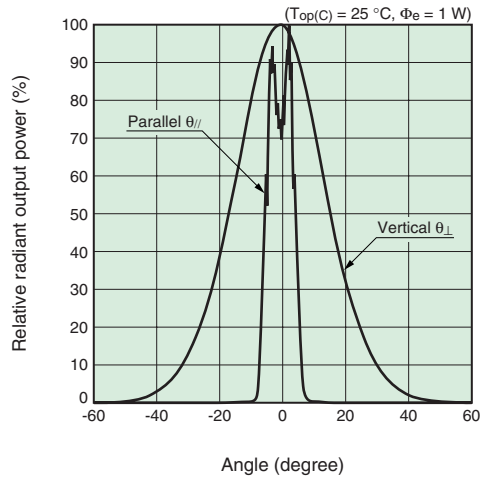
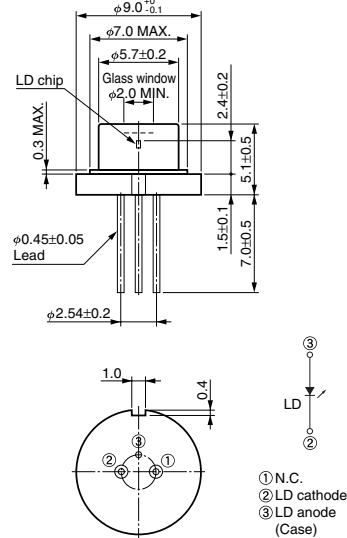
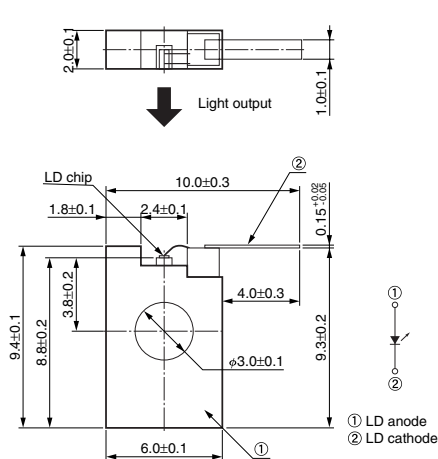


Figure 4: Dimensional outline (unit: mm)

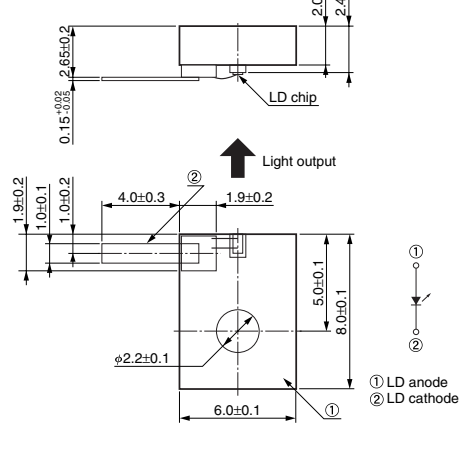
● L9277-42 $\phi 9.0CD$



● L9277-62 Side Out OHS



● L9277-72 Head Out OHS



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