

■ **Features**

- Lateral multimode (broad stripe)
- Radiant output power (CW): 1 W
- Peak emission wavelength: 830 nm
- Emitting area size: 50 μm × 10 μm

■ **Applications**

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



■ **Absolute maximum ratings (T<sub>op(c)</sub> = 25 °C)**

Parameter	Symbol	Value	Unit
Radiant output power	Φ <sub>e</sub>	1.2	W
Forward current	I <sub>f</sub>	1.4	A
Reverse voltage	V <sub>r</sub>	2	V
Operating temperature	T <sub>op(c)</sub>	0 to +30	°C
Storage temperature	T <sub>stg</sub>	-30 to +80	°C

■ **Electrical and optical characteristics (T<sub>op(c)</sub> = 25 °C)**

Parameter	Symbol	Conditions	Value			Unit	
			Min.	Typ.	Max.		
Radiant output power	Φ <sub>e</sub>	I <sub>f</sub> = 1.2 A	—	1	—	W	
Forward current	I <sub>op</sub>	Φ <sub>e</sub> = 1 W	—	1.2	—	A	
Peak emission wavelength	λ <sub>c</sub>		—	830	—	nm	
Spectral radiation half bandwidth	Δλ		—	2	—	nm	
Forward voltage	V <sub>op</sub>		—	2	—	V	
Beam spread angle	Parallel	θ <sub>//</sub>	Φ <sub>e</sub> = 1 W FWHM	—	8	—	degree
	Vertical	θ <sub>⊥</sub>		—	32	—	degree
Emitting area	—	Value at designing	—	50 × 1	—	μm	
Lasing threshold current	I <sub>th</sub>	—	—	0.35	—	A	

# CW Laser Diode L9277 Series

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

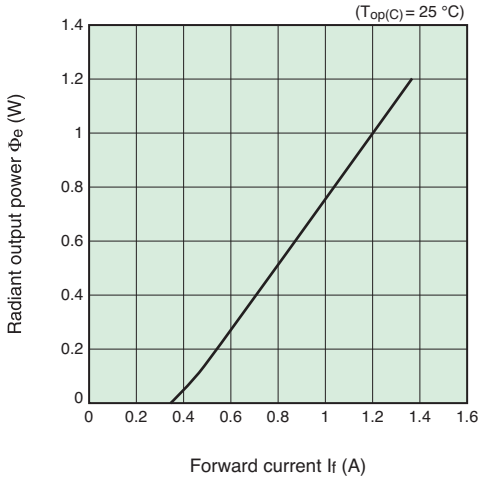


Figure 2: Typical emission spectrum

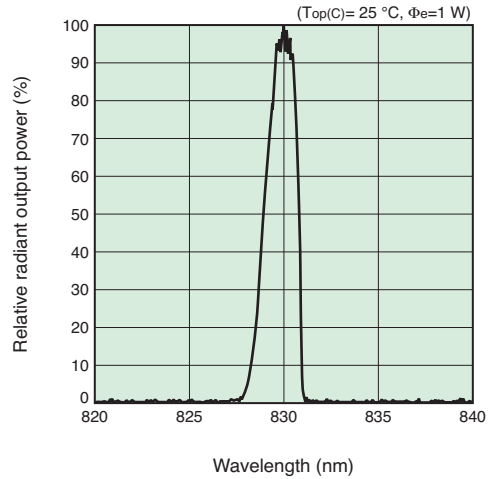


Figure 3: Directivity (typ.)

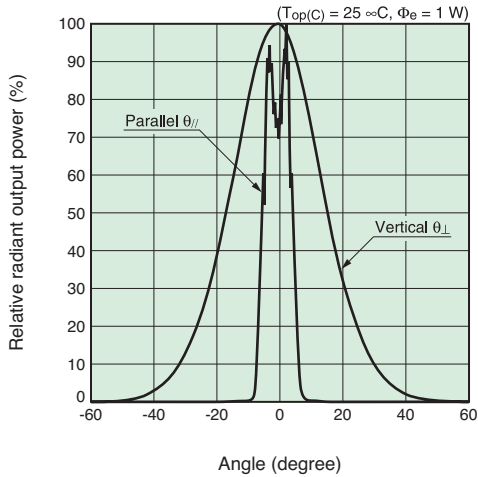
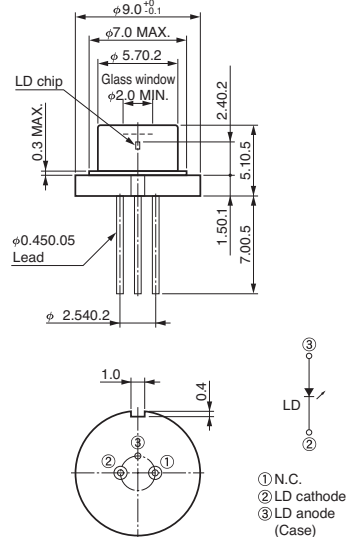
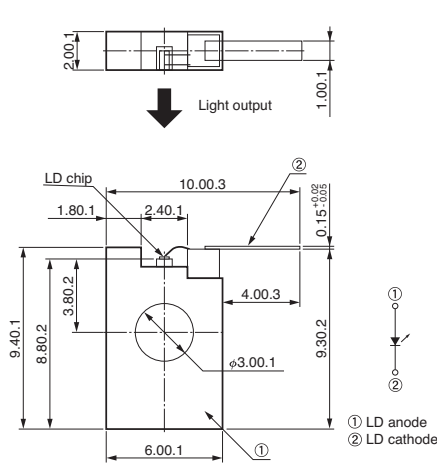


Figure 4: Dimensional outline (unit: mm)

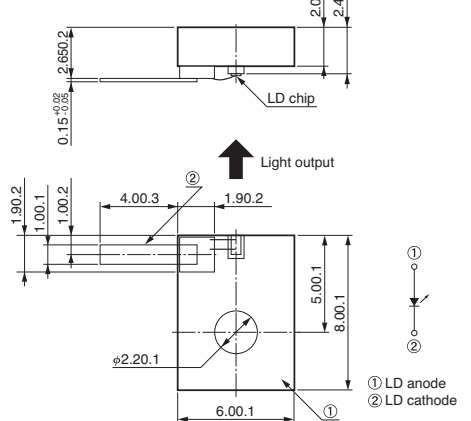
● L9277-42  
Φ9.0CD



● L9277-62  
Side Out OHS



● L9277-72  
Head Out OHS



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