

■Features

- Lateral multimode (broad stripe)
- Radiant output power (CW): 1 W
- Peak emission wavelength: 980 nm
- Emitting area size: 100 μm × 1 μm

■Applications

- Pumping source for solid state laser
- Medical instrument
- Measure instrument
- Communication (EDFA)



■Absolute maximum ratings (T_{op(C)} = 25 °C)

Parameter	Symbol	Value	Unit
Radiant output power	Φ _e	1.2	W
Forward current	I _f	1.4	A
Reverse voltage	V _r	2	V
Operating temperature	T _{op(C)}	0 to +30	°C
Storage temperature	T _{stg}	-30 to +80	°C

■Electrical and optical characteristics (T_{op(C)} = 25 °C)

Parameter	Symbol	Conditions	Value			Unit	
			Min.	Typ.	Max.		
Radiant output power	Φ _e	Φ _e = 1 W	0.8	1	—	W	
Operating voltage	I _{op}		—	1.2	1.38	A	
Peak emission wavelength	λ _p		970	980	990	nm	
Spectral half-width	Δλ		—	2	4	nm	
Operating voltage	V _f		—	2	3	V	
Beam spread angle	Horizontal		θ _{//}	5	8	12	degree
	Vertical		θ _⊥	27	32	37	degree
Emitting area	—		—	100 × 1	—	μm	
Lasing threshold current	I _{th}		—	—	0.25	0.35	A

CW Laser Diode L9418-42

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

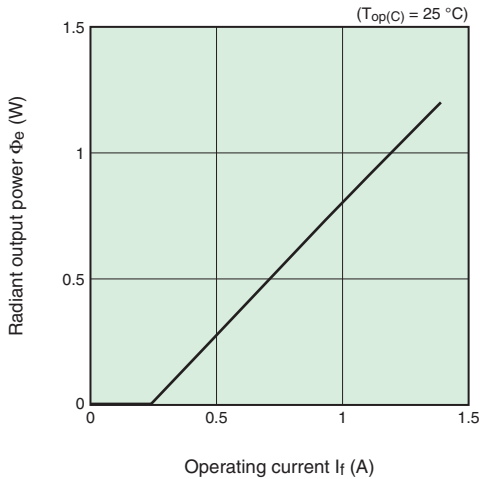


Figure 2: Typical emission spectrum

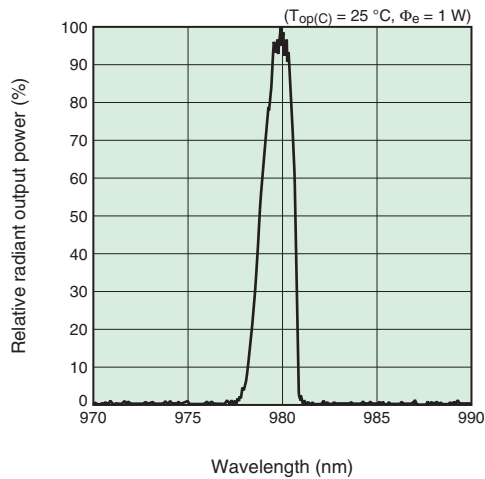


Figure 3: Directivity (typ.)

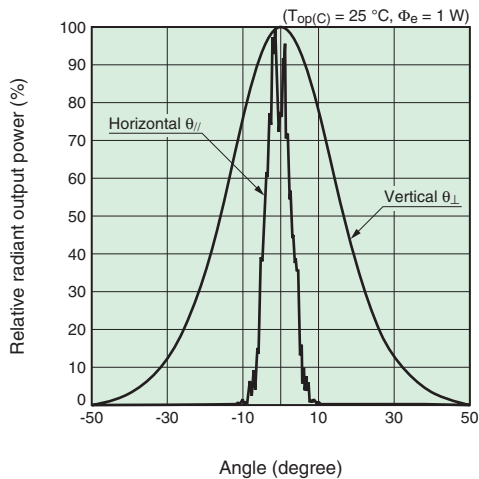
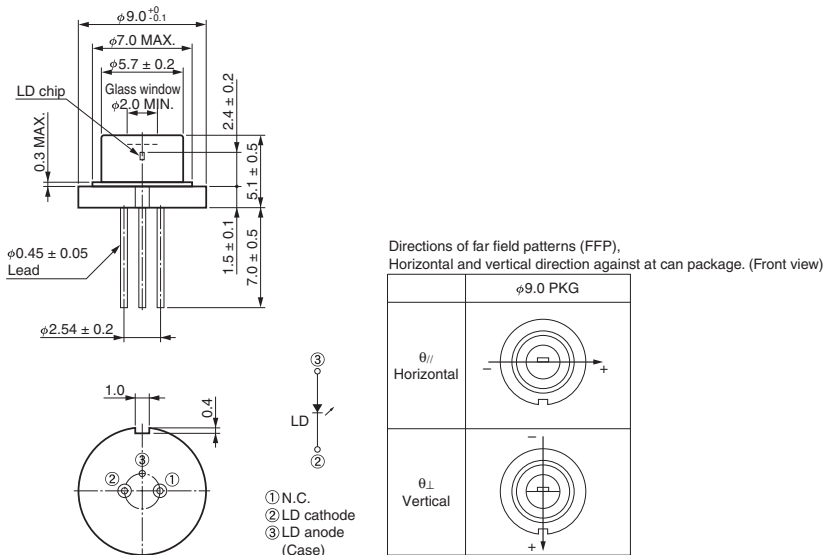


Figure 4: Dimensional outline (unit: mm)



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