

■ FEATURES

- Peak Output Power : $\Phi_{ep} \geq 20$ W
- Peak Emission Wavelength : $870 \text{ nm} \pm 10 \text{ nm}$
- Emitting Area Size : $200 \mu\text{m} \times 1 \mu\text{m}$

■ APPLICATIONS

- Laser Range Finder
- Security



■ ABSOLUTE MAXIMUM RATINGS (Top(c) = 25 °C)

Parameter	Symbol	Value	Unit
Pulsed Forward Current	I_{fp}	25	A
Reverse Voltage	V_r	2	V
Pulse Duration	t_w	100	ns
Duty Ratio	DR	0.075	%
Operating Temperature	$T_{op(c)}$	-40 to +85	°C
Storage Temperature	T_{stg}	-40 to +100	°C

■ CHARACTERISTICS (Top(c) = 25 °C)

Parameter	Symbol	Conditions	Value			Unit	
			Min.	Typ.	Max.		
Pulsed Radiant Power (Peak Power)	Φ_{ep}	$I_{fp} = 20$ A	19	22	—	W	
Forward Voltage	V_f		—	7	—	V	
Peak Emission Wavelength	λ_p		860	870	880	nm	
Spectral Radiation Half Bandwidth	$\Delta\lambda$		—	4	—	nm	
Rise Time	t_r		—	—	2	ns	
Beam Spread Angle	Parallel	$\theta_{//}$	$I_{fp} = 20$ A FWHM	7	10	13	degree
	Vertical	θ_{\perp}		25	30	35	degree
Lasing Threshold Current	I_{th}	—	—	0.8	—	A	
Emitting Area Size	—	Value at designing	—	200×1	—	μm	

Note: General operating condition:

Pulse Width $t_w = 50$ ns, Repetition frequency $f_r = 1$ kHz

PULSED LASER DIODE L11649-120-04

Figure 1: Radiant Flux vs. Forward Current (Typ.)

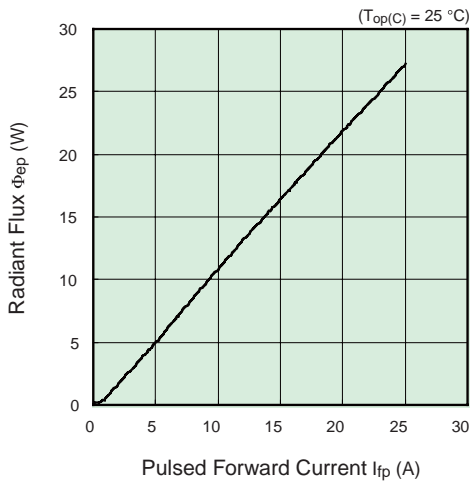


Figure 2: Emission Spectrum (Typ.)

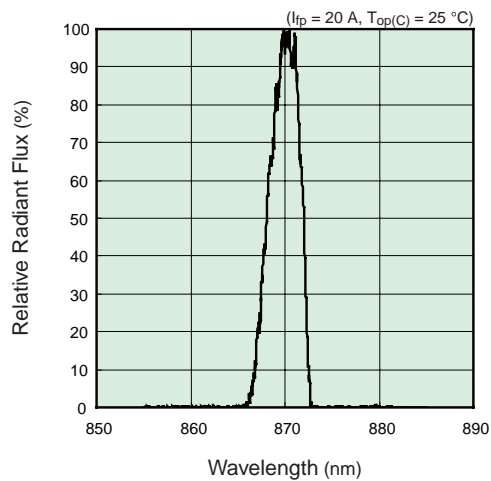


Figure 3: Directivity (Typ.)

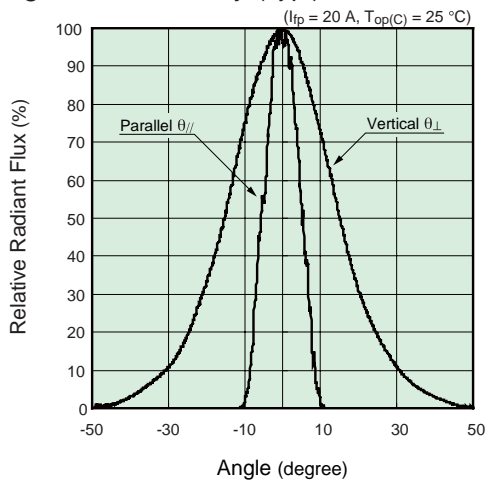
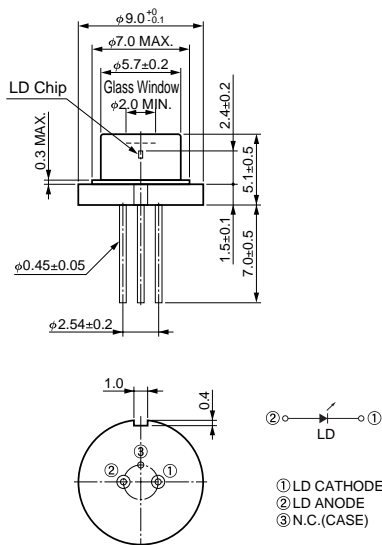


Figure 4: Dimensional Outline (Unit : mm)



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