

4 stack Pulsed Laser Diode

■ Features

- High power output: 905 nm 4 stack PLD
- High Electrical / Optical conversion Efficiency: 50%@ 20 A
- High brightness at 120um emitter width
- Sharp Near field pattern

■ Absolute Maximum Ratings

Characteristic	Symbol	Rating	Unit
Pulsed forward current	I_{fp}	25	A
Peak Radiant Flux	Φ_{ep}	100	W
Pulse width	t_w	10	ns
Duty ratio	DR	0.05	%

■ Characteristics

(Conditions $t_w = 5$ ns, $f_r = 10$ kHz, $T_{op(c)} = 25$ °C, Can-pkg)

Items	Conditions	Provisional specifications			Unit
		Min.	Typ.	MAX	
Peak emission wavelength	$I_{fp} = 20$ A	895	905	915	nm
Spectral Half Width	$I_{fp} = 20$ A	—	6	10	nm
Peak Radiant Flux	$I_{fp} = 20$ A	—	90	—	W
Forward Voltage	$I_{fp} = 20$ A	-	9	-	V
Beam spread angle Vertical	FWHM $I_{fp} = 20$ A	6	10	14	Degree
Beam spread angle Horizontal		21	26	31	
Emitting Area	FWHM-	—	120 x 14	—	$\mu\text{m} \times \mu\text{m}$

4 Stack Pulsed Laser Diode (120 μm emitting width)

Conditions: $T_{\text{op(c)}} = 25\text{ }^{\circ}\text{C}$, $I_{\text{op}} = 20\text{ A}$, $t_w = 50\text{ ns}$, $f_r = 1\text{ kHz}$, Can PKG.

Figure 1: I-L and I-V Characteristics (Typ.)

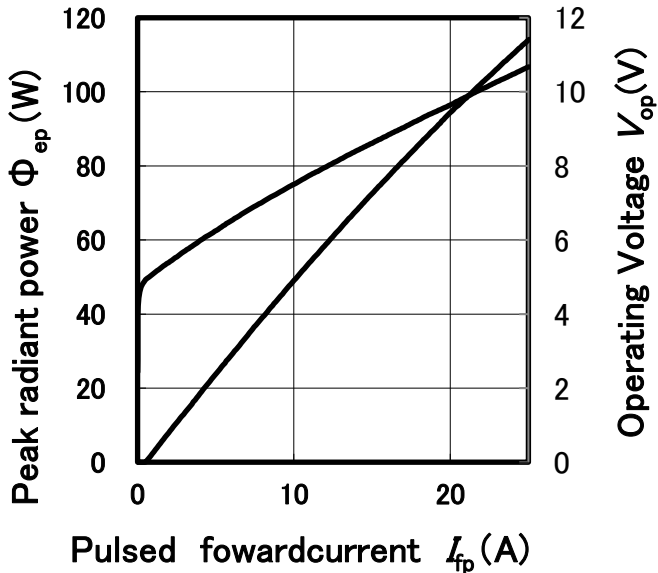


Figure 2: Emission spectrum (Typ.)

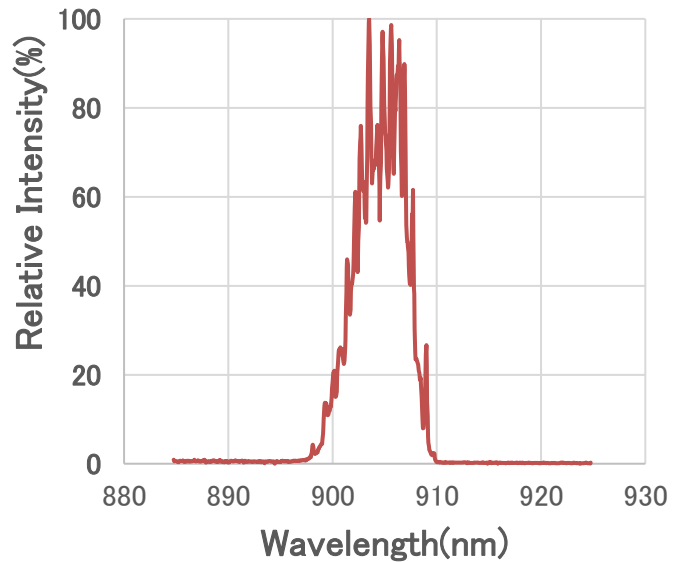


Figure 3: Directivity (Typ.)

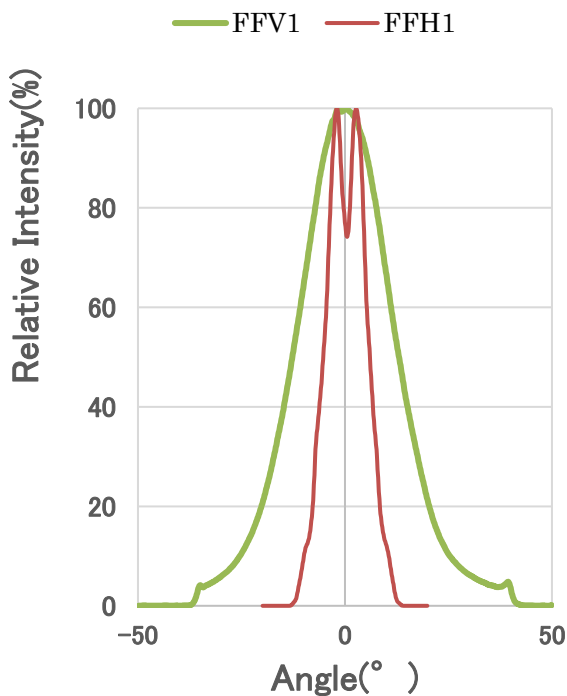
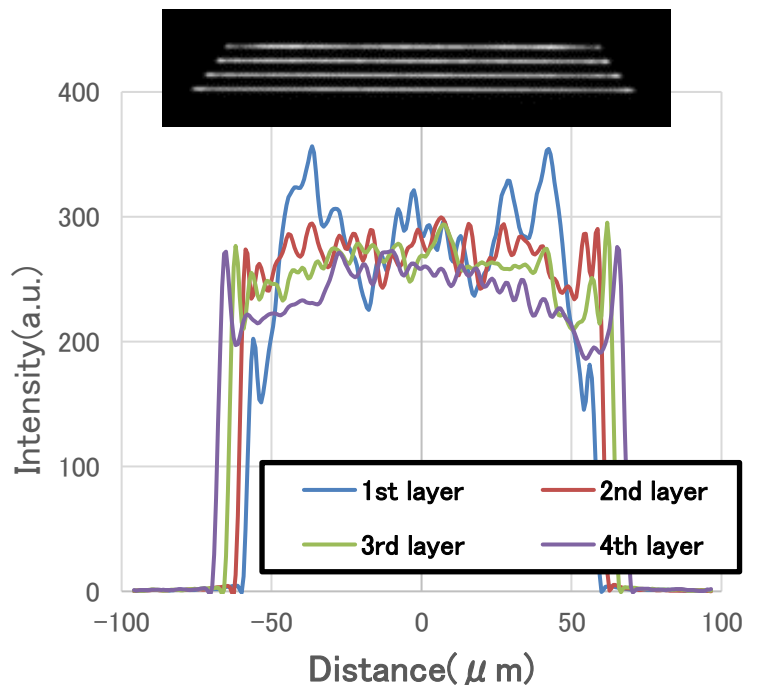


Figure 4: Near Filed Pattern (NFP) (Typ.)



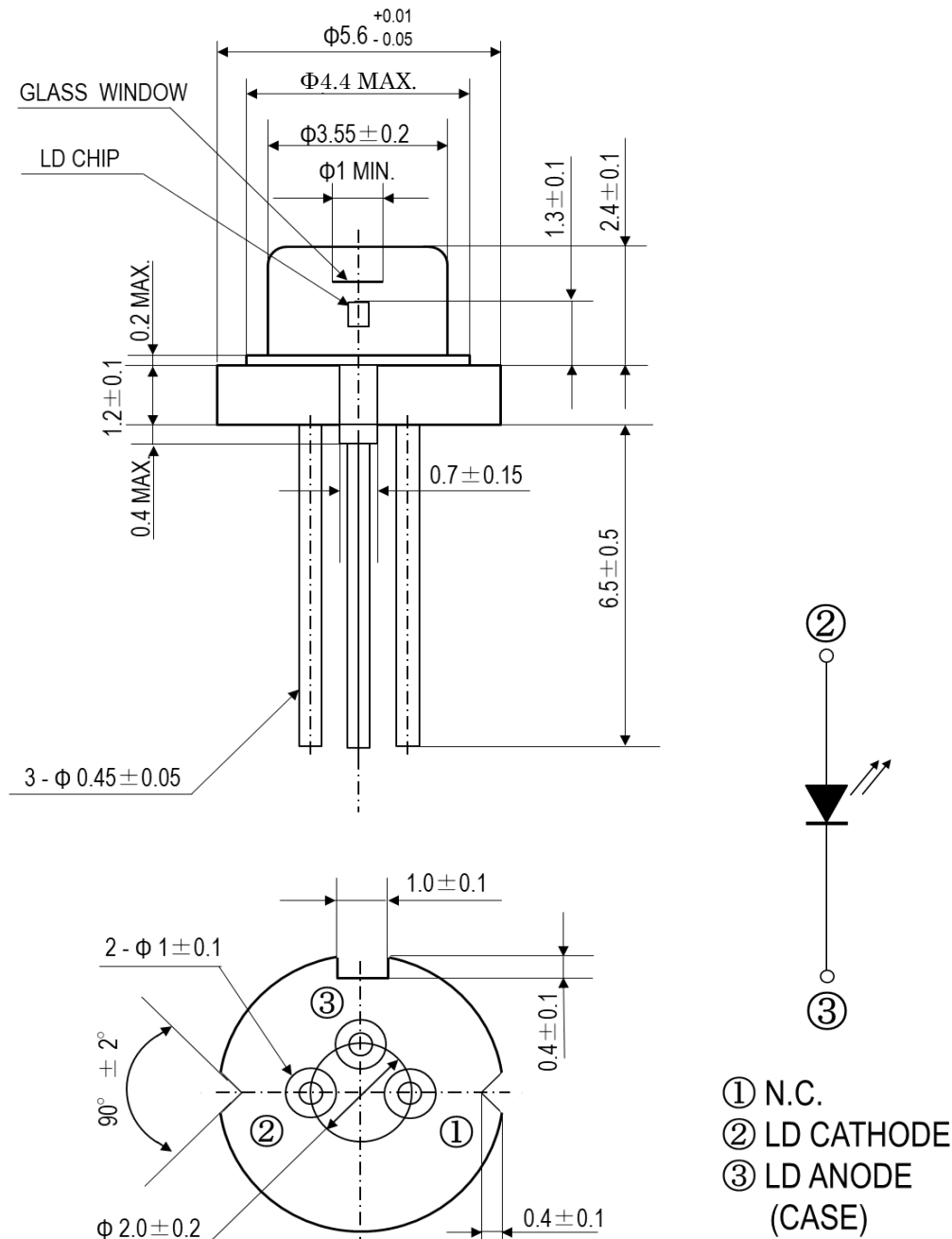
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Figure1: Dimensional outline PLD chip)



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