



870nm 20W 100ns Pulsed Laser Diode



- **Product Description**

These laser diodes feature high peak power under pulsed operation.

Different variants offer varying peak output powers and emission widths.

- **Product features**

High-power single emitter; Narrow pulse width; Wide wavelength selection;

TO package compatibility; Low drive voltage

- **Part Number**

MP-PLD-NS-100-870-20W



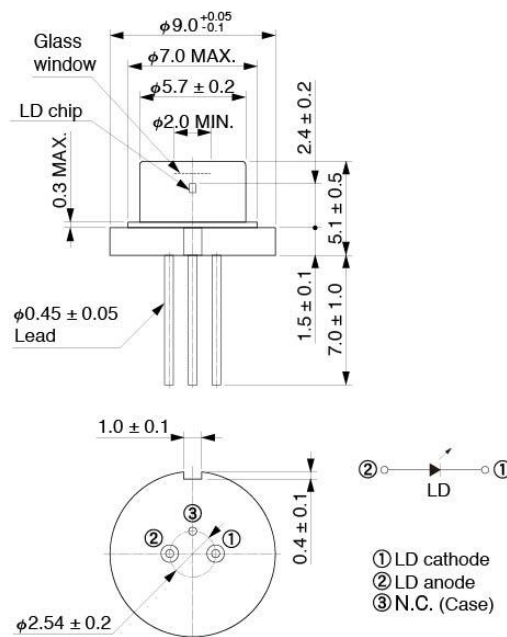
● Application area

Laser ranging & LiDAR | Fiber-optic sensing | Medical applications | Industrial marking & engraving | Scientific & optical experiments

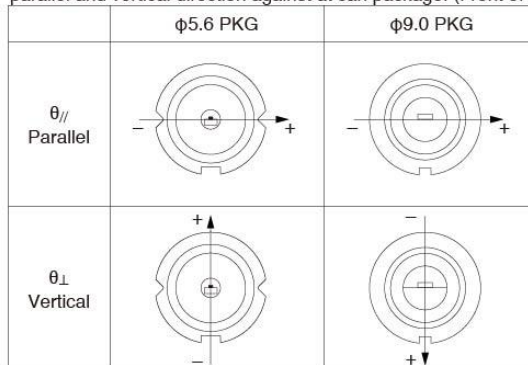
● Core parameters

Working wavelength	Output power
870nm	20W

● Dimension Drawing



Directions of far field patterns (FFP), parallel and vertical direction against at can package. (Front of view)



● General Parameters

Technical parameters

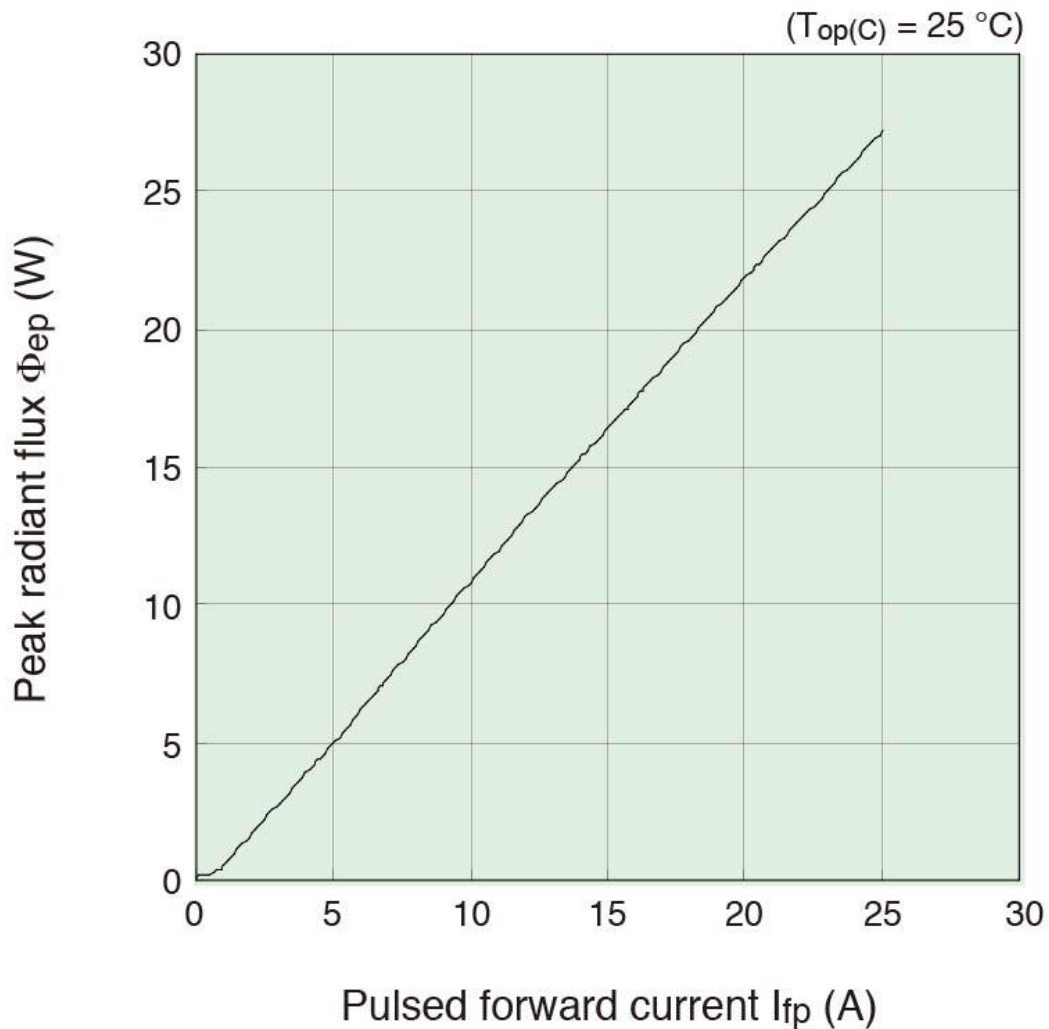
Model	Value
Type	Single Emitter PLDs
Pulse forward current	25 A
Pulse duration	100 ns
Duty Cycle	0.075 %
Operating temperature	- 40 to + 85 °C
Storage temperature	- 40 to + 100 °C
Peak luminous wavelength Min. value	860 nm
Peak emission wavelength typical	870 nm
Peak luminescence wavelength Max. value	880 nm
Light pulses output typical values	20 W
Spectral radiation half-bandwidth typical	4 nm
Typical values for operating voltages	7 V
Rising time Max. value	2 ns
Luminous width	230 × 1 μm
Beam Divergence Angle_Parallel Min. value	7 °
Beam divergence angle_parallel typical value	10 °
Beam divergence angle_parallel Max. value	13 °
Beam Divergence Angle_Vertical Min. value	25 °
Beam divergence angle_vertical typical value	30 °



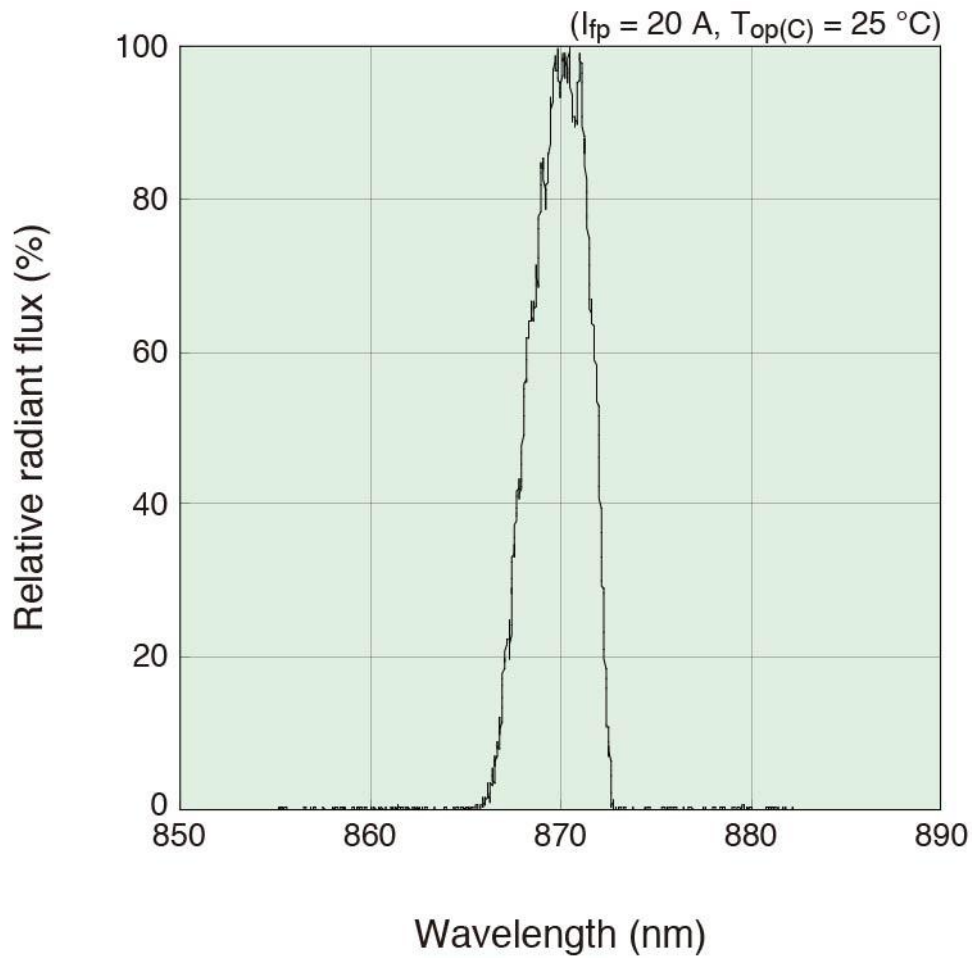
Beam Divergence Angle_Vertical Max. value	35 °
Typical value of laser pumping threshold current	0.8 A
Encapsulation	dia. 9.0CD

Product characteristics:

Radiated output power and operating current (typical)



Typical emission spectrum



General parameters

Model	Name	Type	Pulse forward current	Peak emission wavelength typical	Light pulses output typical values	Luminous width	Encapsulation



MP-PLD-N S-100-905- 70	Pulsed laser diodes	3 Stack PLDs	25 A	905 nm	70 W	230 × 10 μm	Ceram ic
MP-PLD-N S-100-870- 21	Pulsed laser diodes	3 Stack PLDs	10 A	870 nm	21 W	70 × 10 μm	dia. 5.6CD
MP-PLD-N S-100-870- 20W	Pulsed laser diodes	Single Emitter PLDs	25 A	870 nm	20 W	230 × 1 μm	dia. 9.0CD
MP-PLD-N S-100-905- 21W	Pulsed laser diodes	3 Stack PLDs	10 A	905 nm	21 W	70 × 10 μm	dia. 5.6CD
MP-PLD-N S-100-905- 75W	Pulsed laser diodes	3 Stack PLDs	30 A	905 nm	75 W	230 × 10 μm	dia. 5.6CD
MP-PLD-N S-100-905- 100W	Pulsed laser diodes	3 Stack PLDs	40 A	905 nm	100 W	360 × 10 μm	dia. 5.6CD