



## 870nm 21W 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 peak power; High-speed response; High repetition frequency; Compact

TO package; Low drive voltage

- **Part Number**

MP-PLD-NS-100-870-21W

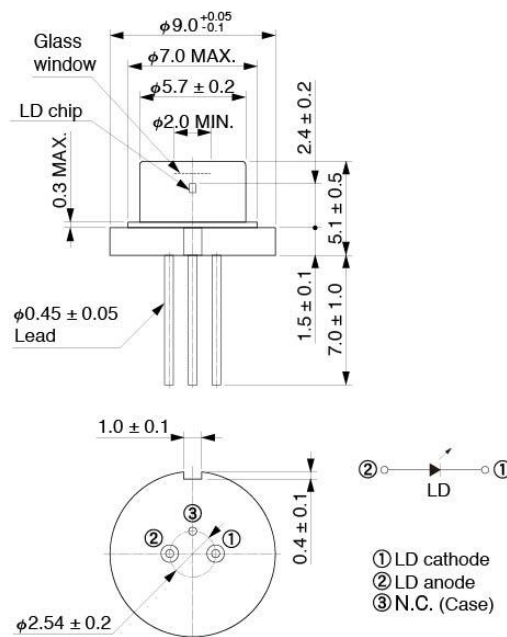
## ● Application area

LiDAR | Laser ranging | Fiber-optic sensing | Medical equipment | Optical triggering

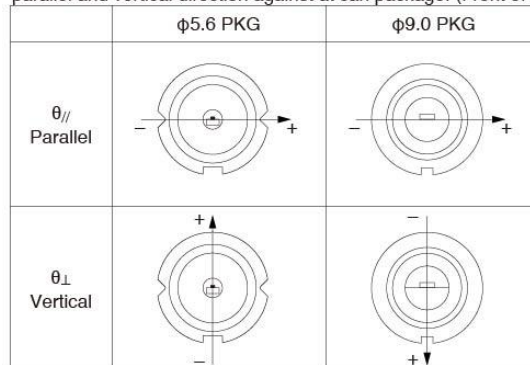
## ● Core parameters

Working wavelength	Output power
870nm	21W

## ● Dimension Drawing



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



## ● General Parameters

### Technical parameters

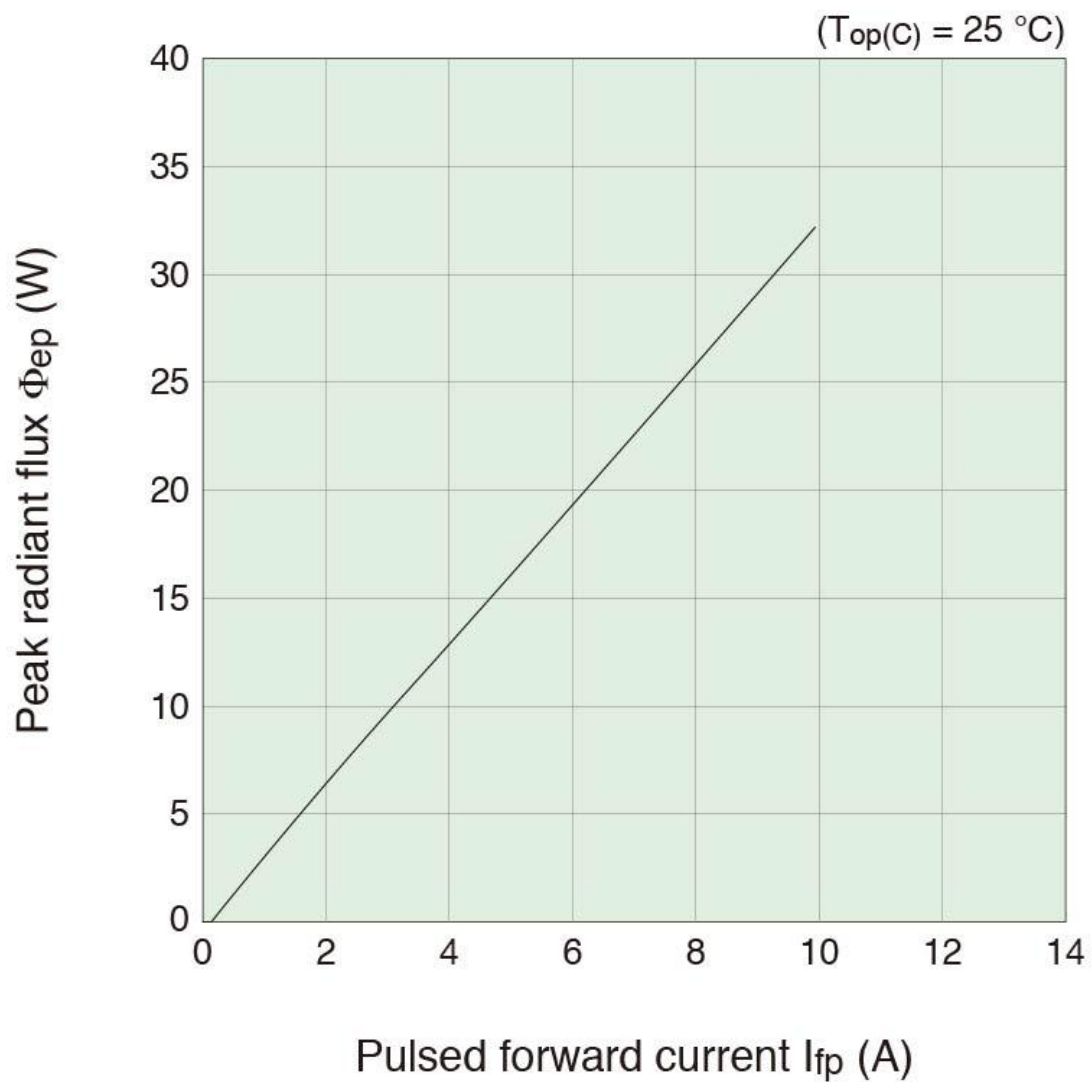
Model	Value
Type	3 Stack PLDs
Pulse forward current	10 A
Pulse duration	100 ns
Duty Cycle	0.075 %
Operating temperature	- 40 to + 85 °C
Storage temperature	- 40 to + 100 °C
Peak luminous wavelength Min. value	860 nm
Peak emission wavelength typical	870 nm
Peak luminescence wavelength Max. value	880 nm
Light pulses output typical values	21 W
Spectral radiation half-bandwidth typical	6 nm
Typical values for operating voltages	13 V
Rising time Max. value	2 ns
Luminous width	70 × 10 μm
Beam Divergence Angle_Parallel Min. value	8 °
Beam divergence angle_parallel typical value	11 °
Beam divergence angle_parallel Max. value	14 °
Beam Divergence Angle_Vertical Min. value	19 °
Beam divergence angle_vertical typical value	24 °



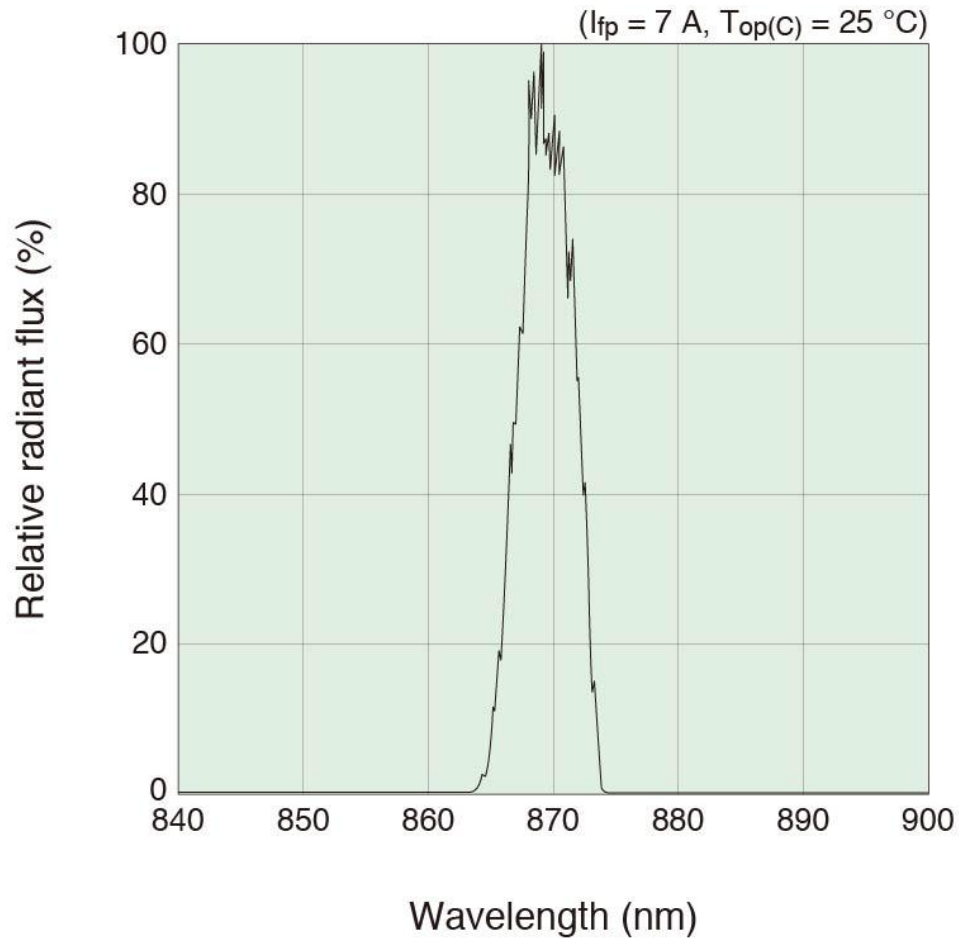
<b>Beam Divergence Angle_Vertical Max. value</b>	<b>29 °</b>
<b>Typical value of laser pumping threshold current</b>	<b>0.5 A</b>
<b>Encapsulation</b>	<b>dia. 5.6CD</b>

**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	Pulsed laser	3 Stack	25 A	905 nm	70 W	230 ×	Ceram



S-100-905 -70W	diodes	PLDs				10 μm	ic
MP-PLD-N S-100-870 -21W	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