

905nm 50W FP MM coaxial pulse laser diode Version: 3.1 17-06-01

Model: LSPLD905-50W

Features:

- MQW F-P pulse LD
- Multiple mode
- Low threshold/operate current
- Metal can type non-hermetic
- High reliable

Applications:

- laser range finding,
- laser radar
- laser guard
- Industrial automatic control
- Science analysis and experiment
- Test and Measurement Equipment

**Absolute maximum ratings:**

| parameter | symbol | value | unit |
|-----------------------------|----------------|---------|------|
| Operating temperature | Top | -40~+70 | °C |
| Storage temperature | Tstg | -40~+85 | °C |
| Laser diode forward current | I _f | 40 | A |
| Laser diode Reverse voltage | V _r | 3 | V |
| Soldering temperature/time | | 260/10 | °C/S |

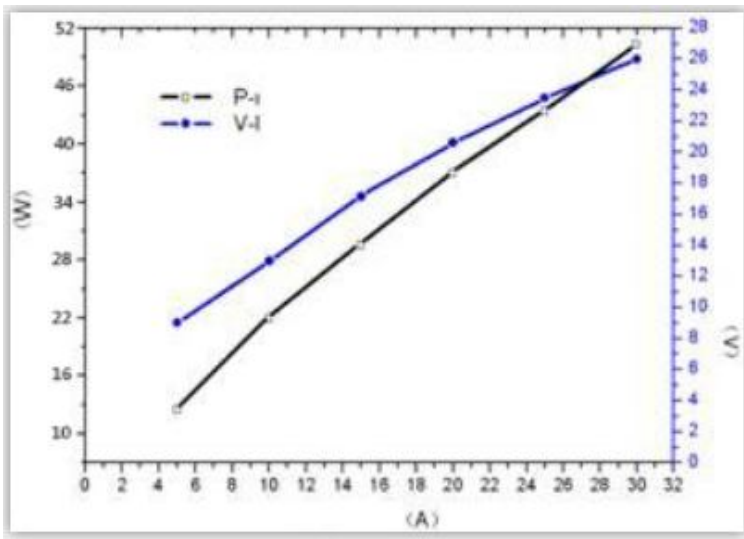
Electrical and optical characteristics:(T=25°C)

| parameter | symbol | Min. | Typ. | Max. | unit |
|--|---|------|------|------|-------|
| Center wavelength | λ | 895 | 905 | 915 | nm |
| Threshold Current | I _{th} | | 0.75 | 1 | A |
| Operating Current | I _{op} | | 27 | 30 | A |
| Operating Voltage | V _{op} | | 24 | 26 | V |
| Spectral width | $\Delta\lambda$ | | 7 | | nm |
| Light output power(from 200um MM fiber) | P _o (pulse) | | 50 | | W |
| Rise time | t _r /t _f | | 1 | | ns |
| Pulse width | t _p | | | 100 | ns |
| Duty cycle | | | | 0.1 | % |
| Temperature coefficient of wavelength | | | 0.27 | | nm/°C |
| Temperature coefficient of optical power | | | -0.4 | | %/°C |
| package | non-hermetic TO-5 Can with fiber coupling | | | | |

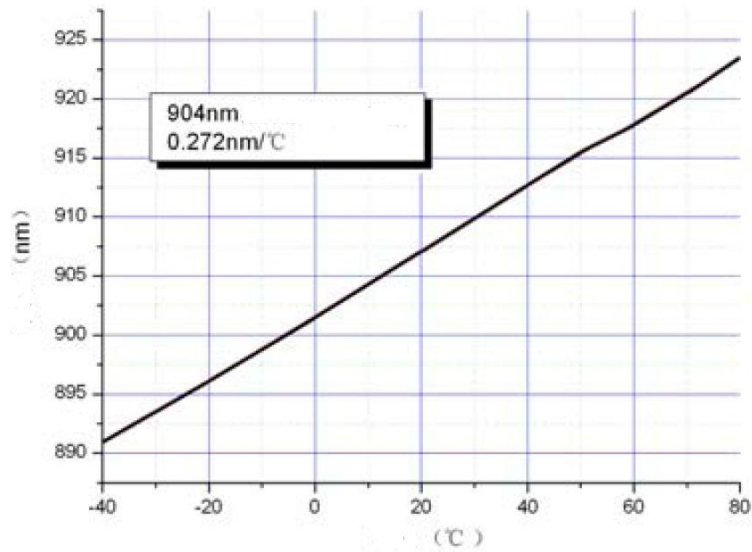
NOTICE: The above product specifications are subject to change without notice.

The typical curve

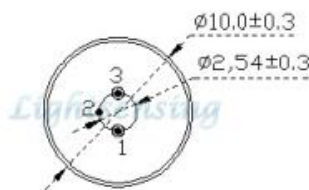
Optical output power P_{opt} , Forward voltage V_f vs. forward current I_f ($T_A = 25^\circ C$)



Wavelength vs temperature ($T_A = 25^\circ C$)



The package Dimensions and PIN description



Bottom View

| pin | function |
|-----|------------|
| 1 | LD Anode |
| 2 | Case |
| 3 | LD cathode |

Order information

LSPLD905-X-X

X=50W

X=20MMFP

200um (NA0.22) MM Fiber coupling with FC/PC connector

X=other

X=20MMFA

200um (NA0.22) MM Fiber coupling with FC/APC connector

X=Other

By customer's request

The cautions

- 1: The above product specifications are subject to change without notice.
- 2: The suitable ESD protection is required in storage, transportation and using
- 3: The fiber bending radius no less than 20mm for avoiding fiber damaged, Be sure the fiber coupling facet is clean before connecting it to opto-circuit.