



## 300W 905nm pulsed laser diode

### (P/N.: PLD-905-300W-B-01)

### Features

- 3 stack PLD with 4 junctions connected in series
- Laser wavelength 905nm
- Peak output power 300W
- Optical aperture size 200μm x 400μm

### Applications

- Laser range finding
- Missile fuses

### Absolute maximum ratings

| Parameter                  | Symbol      | Min | Typ | Max      | Unit |
|----------------------------|-------------|-----|-----|----------|------|
| Operating Case Temperature | $T_C$       | -40 | -   | 85       | °C   |
| Storage Temperature        | $T_{STG}$   | -40 | -   | 100      | °C   |
| Pulse duration             | $t_{pulse}$ |     |     | 100      | ns   |
| Duty cycle                 | RR          | -   | -   | 0.1      | %    |
| Forward current            | $I_F$       | -   | -   | 50       | A    |
| Forward voltage            | $V_F$       | -   | -   | 50       | V    |
| Lead Soldering Temperature | $T_{SOL}$   | -   | -   | 260 (5s) | °C   |

### Opto-Electrical Characteristics

$I_{op} = 40A$ ,  $t_{pulse} = 100ns$ ,  $f = 10kHz$ ,  $RR = 0.1\%$ ,  $T_a = 25^\circ C$

| Parameter                      | Symbol                      | Min | Typ     | Max | Unit  |
|--------------------------------|-----------------------------|-----|---------|-----|-------|
| Central wavelength             | $\lambda$                   | 895 | 905     | 915 | nm    |
| Spectral width                 | $\lambda_{FWHM}$            | -   | 7       | 10  | nm    |
| Temp coefficient of wavelength | $\Delta \lambda / \Delta T$ | -   | 0.28    | -   | nm/°C |
| Threshold current              | $I_{TH}$                    | -   | 1       | -   | A     |
| Operating current              | $I_{op}$                    | -   | 40      | -   | A     |
| Operating voltage              | $V_{op}$                    | -   | 50      | -   | V     |
| Beam divergence (horizontal)   | $\theta_{//}$               | -   | 10      | -   | °     |
| Beam divergence (vertical)     | $\theta_{\perp}$            | -   | 30      | -   | °     |
| Emission area (aperture)       |                             |     | 200x400 |     | μm    |



## Dimensional outline (units = mm)

