DPSSL Solid State Lasers Product division

MP532-3W Part number

Diode-pumped Solid State Green Laser 3W CW - 8W QCW Description

3W@532 nm at continuous wave (CW) and 8W quasi-continuous wave (QCW).

Clamping technology mounted laser diode bar for pumping.

Power on dema nd (switching On-Off).

Multi-Path® technology. Main Features Low cooling requirements.

High power stability.

Monitor photodiode

Ophthalmology . Dermatology Applications Entertainment Industrial

Picture

JANA WAY SE 0 X2M4MAX V6 0 Fo Outline (C::::::O)

MP532-3W | GENERAL SPECIFICATIONS

| | | Minimum | Operation | Max. rating |
|------------|---|--------------------|---------------|------------------|
| OPTICAL | Wavelength [nm] | 531 | 532 | 533 |
| | CW output peak power [W] | | 3 | |
| | Modulated output peak power [W] | | 8 | |
| | Output beam size [µm] | | 120 x 80 | |
| | Beam position (height) [mm] | | 22 | |
| | Divergence [mrad] | | | 10 |
| | M^2 | | | 4 |
| ELECTRICAL | LD operating current, typ. [A] | 10 | 28 | 40 |
| | LD operating voltage [V] | 1,6 | 1,7 | 1,9 |
| | Monitor PD voltage (@3W, 10 kΩ) [Vdc] | | 1,5 | 2 |
| | LD TEC current [A] | | | 8 |
| | LD TEC voltage [Vdc] | | 14 | |
| | NLC TEC current [A] | | | 2 |
| | NLC TEC voltage [A] | | 4,8 | |
| | Laser pulse duration [ms] | 10 | | 2500 |
| | Repetition rate [Hz] | 1 | 25 | CW |
| | Rise and fall time [ms] | 0,5 ⁽²⁾ | 2 | 5 ⁽³⁾ |
| | Warm up time³ [s] | | | 30 |
| | Power stability, short time (RMS) ¹ [%] | | | 1 |
| MECHANICS | Operation temperature (housing) ⁴ [°C] | 15 | | 45 |
| | Weight [g] | | 900 | |
| | Dimensions [mm³] | | 67 x 42 x 167 | |
| | Expected Lifetime [h] | | 10.000 | |
| | Laser class(EN-60825) | 4 | | |

Note: Not all maximum specifications can be achieved at a time

- For the typical output power
- 2. Rise time for pulsed conditions, measured at 25Hz and 50%DC
- 3. Defined as the time required for laser stabilization (time to establish LD and NLC operation temperature and crystal thermal lens). In pulsed mode, the warm up time only affects the first pulses.
- Within the temperature range, optical power could vary ±10%, to be compensated from the monitor photodiode signal through PID. For higher temperatures, laser head should be mounted on a cooled surface with a capacity to remove 60W waste heat at max. housing temp.