

LIMO LM Medical Series

Version March 01, 2010
HIGH-POWER DIODE LASER

LIMO
Lissotschenko Mikrooptik



- SMA905 Plug & Play connector for optical fibres
- Compact dimensions
- Passively cooled
- 2 temperature sensors (NTC/PT100)

Optical data ¹			
CW – nominal output power (W)		35	40
Centre wavelength λ (nm)			805-810
Tolerance of λ (nm)			± 10 (± 3) ³
Spectral width (FWHM) (nm)			< 5 (< 4) ³
Temperature drift of λ ⁴ (nm/K)			-0.28
Fibre data			
Fibre core diameter (μm)		200	400
Numerical aperture			0.22
Fibre-optic connector			SMA905
Electrical data			
Typical operation current (start of lifetime) (A)		50	53
Max. Operation current (start of lifetime) (A)		55	58
Max. Operation current (end of lifetime) (A)		66	69
Typical threshold current (A)			10
Typical efficiency (%)		39	42
Typical slope efficiency (W/A)		0.9	0.9
Operation voltage (V)			< 1.9
Reverse voltage			0
Thermal conditions			
Diode operation temperature ⁵ ($^{\circ}\text{C}$)			+15....30
Storage temperature ($^{\circ}\text{C}$)			-20....+60
Other specifications			
Expected lifetime ⁶ (hours)			20,000
RoHS 2002/95/EC and CE compliant			YES
Dimensions of laser head (connectors not included) (mm)			109 x 25 x 37
Weight (g)			300

¹Optical data @ 25°C diode heat sink temperature, ²Other wavelength on request, ³optional, ⁴Depending on wavelength, ⁵Measured by NTC/PT100 at temperature measurement hole defined in drawing, ⁶According ISO 17526:2003(E);

Optional accessories

Pilot beam			
Pilot beam output power (mW)			> 0.7
Pilot beam wavelength (nm)			635
Pilot beam voltage (V)			4-5
Pilot beam current (mA)			< 120
Monitor diode			
Operation voltage (V_{DC})			5
Monitor diode signal (V)			0-2
Fibre detection sensor			
Fibre detection sensor 1 voltage (V)			12
Fibre detection sensor 1 current (mA)			< 100
Fibre detection sensor 1 type			PNP

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