

Conduction-Cooled, Visible, Diode Laser Single Bar

Features

- Very low smile
- Available as uncollimated or fast-axis collimated
- Various heat sink geometries available



Device Specification

| Optical Parameters ¹ | Units | | | | |
|---|--------|-------|------------|-------|-------|
| Center Wavelength Range ³ | nm | 632 | 635 | 638 | 677 |
| Center Wavelength Tolerance | nm | ±1.5 | ±3 | ±3 | ±3 |
| Output Power ² | W | 4 | 4 | 8 | 20 |
| Number of Emitters | # | 19 | 19 | 20 | 19 |
| Emitter Size | µm | 50 | 50 | 40 | 100 |
| Fill Factor | % | 10 | 10 | 20 | 20 |
| Spectral Width (FWHM) | nm | <2.0 | <2.0 | <2.0 | <2.0 |
| Slope Efficiency | W/A | >0.75 | >0.85 | >0.8 | >1.20 |
| Fast-Axis Divergence (90%) | degree | <90 | <90 | <90 | <65 |
| Slow-Axis Divergence (90%) | degree | <10 | <8 | <10 | <10 |
| Wavelength Temp. Coefficient | nm/°C | ~0.16 | ~0.16 | ~0.16 | ~0.16 |
| Electrical Parameters ¹ | | | | | |
| Power Conversion Efficiency | % | >15 | >25 | >30 | >33 |
| Threshold Current (I _{TH}) | A | <6 | <4.5 | <4 | <12 |
| Operating Current (I _{OP}) | A | <10 | <9.5 | <14 | <30 |
| Operating Voltage (V _{OP}) | V | <2.20 | <2.20 | <2.20 | <2.20 |
| Thermal Parameters | | | | | |
| Operating Temperature Range ^{3, 4} | °C | | +20 to +25 | | |
| Storage Temperature Range ⁴ | °C | | 0 to 55 | | |
| Recommended Heat Sink Capacity Per Bar | W | | <70 | | |

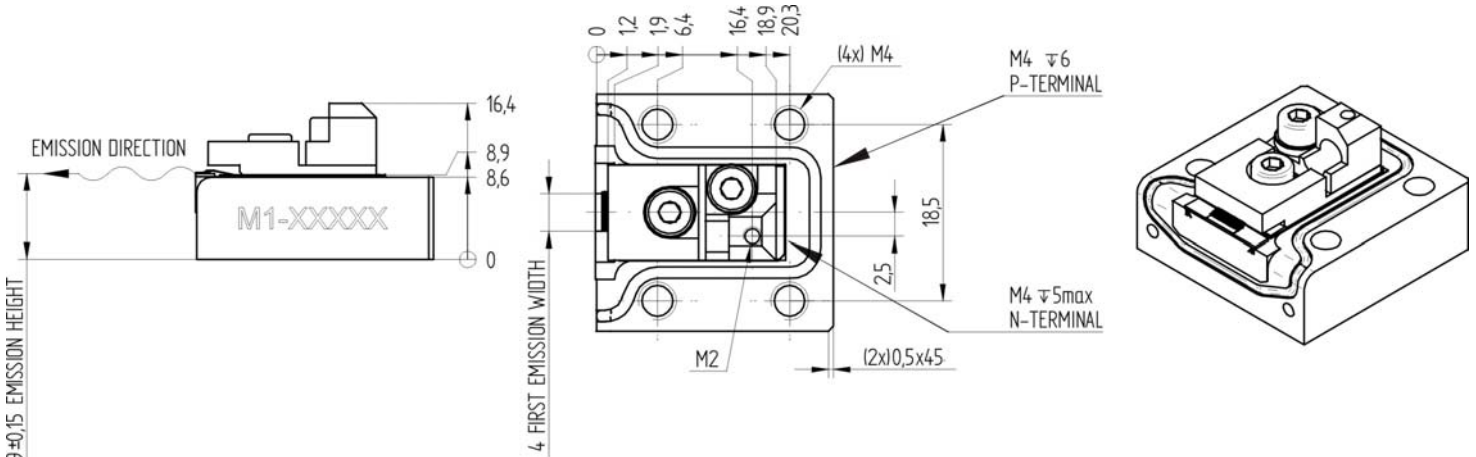
¹Data at 20°C cold plate temperature, unless otherwise stated.

²Reduced lifetime if used above nominal operating conditions.

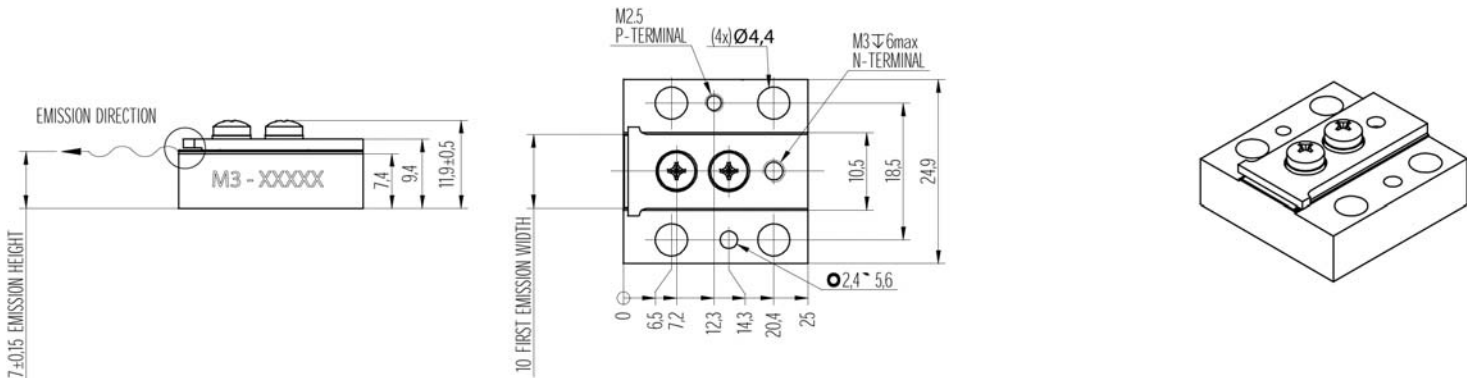
³Others available upon request.

⁴A non-condensing environment is required for storage and operation below the ambient dew point.

Package Dimension



*Emission Height



*Emission Height

*Emission height depends on mounting technology and may vary by $\pm 300\mu\text{m}$.



DILAS products specifications are subject to change without notice. For handling precautions, please reference the general handling instruction manual.

For complete details, please contact your local DILAS sales representative or visit our website at www.DILAS.com.

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