

## MaxiBrite Miniature Series

### LDM115/633



The MaxiBrite Miniature laser is a self-contained OEM laser diode module emitting a wavelength of close to 633nm. It has the highest visibility of any of the red laser diodes and can be seen in most daylight conditions.

As a direct replacement for helium neon lasers in many applications, it offers additional benefits of superior ruggedness, miniature size (11mm diameter) and greater efficiency. Internal connection of the laser diode to the module housing ensures good heatsinking and longer laser lifetimes.

The MaxiBrite Miniature Series is available with a choice of two lenses. The LDM115**G**/633 laser uses a glass lens for greatest optical throughput. The output beam is elliptical and offers the smallest output beam diameter and focussed spot size. The LDM115**P**/633 uses a plastic lens that yields a circular spot and offers a lower cost unit at the lower powers.

#### Features

- Compliant with European and U.S. Legislation
- Rugged Construction
- 11mm Diameter
- User Adjustable Focussing Lens
- Low Voltage DC Operation
- Reverse Polarity Protection
- Integral Emission Indicator

#### Applications

- Alignment and Positioning
- Bar Code Readers
- Dimensional Scanning
- Metrology
- Event Detection
- Robot Control
- Target Designation
- Edge Detection
- Analysis
- Security
- Optical Fibre Testing
- Entertainment (Laser Gaming)

| <b>MaxiBrite Miniature<br/>Series Specifications</b>  | <b>Glass Lens<br/>LDM115G/___</b> |       |       | <b>Plastic Lens<br/>LDM115P/___</b> |       |       |
|---|-----------------------------------|-------|-------|-------------------------------------|-------|-------|
|   | 633/1                             | 633/3 | 633/5 | 633/1                               | 633/3 | 633/5 |
| <b>Optical</b>  | 633/1                             | 633/3 | 633/5 | 633/1                               | 633/3 | 633/5 |
| Output Power (mW +/- 10%)   | 0.9                               | 3     | 4.5   | 0.9                                 | 3     | 4.5   |
| Laser Classification  | 2                                 | 3a    | 3a    | 2                                   | 3a    | 3a    |
| Power Stability (%)   | < 5                               |       |       | < 5                                 |       |       |
| Wavelength (nm)   | 635 +/- 5                         |       |       | 635 +/- 5                           |       |       |
| Wavelength vsTemp (nm/°C)   | 0.2                               |       |       | 0.2                                 |       |       |
| Focus Range (mm)  | 35 to ∞                           |       |       | 150 to ∞                            |       |       |
| Beam Size at Aperture (mm)  | 4 x 2                             |       |       | 5 x 5                               |       |       |
| Beam Size at Nearest Focus (mm)   | < 50                              |       |       | < 100                               |       |       |
| Beam Divergence (mrad)  | < 0.5                             |       |       | < 0.5                               |       |       |
| Astigmatism (µm)  | < 10                              |       |       | < 10                                |       |       |
| Beam Position (mrad)  | < 25                              |       |       | < 25                                |       |       |
| Pointing Stability (mrad)   | < 0.1                             |       |       | < 0.1                               |       |       |
| <b>Electrical/Mechanical</b>  |                                   |       |       |                                     |       |       |
| Supply Voltage – Red Lead   | 0                                 |       |       | 0                                   |       |       |
| Supply Voltage – Black Lead   | -4 to -6                          |       |       | -4 to -6                            |       |       |
| Operating Current (mA)  | 30                                | 60    | 75    | 35                                  | 70    | 70    |
| Length (mm)   | 37                                |       |       | 47                                  |       |       |
| Diameter (mm)   | 11                                |       |       | 11                                  |       |       |
| Mass (g)  | 9.5                               |       |       | 10.5                                |       |       |
| Supply Lead Length (mm)   | 200                               |       |       | 200                                 |       |       |
| <b>Environmental</b>  |                                   |       |       |                                     |       |       |
| Operating Temperature (°C)  | -10 to +50                        |       |       | -10 to +50                          |       |       |
| Storage Temperature (°C)  | -40 to +85                        |       |       | -40 to +85                          |       |       |
| Operating Humidity (%rh)  | 90                                |       |       | 90                                  |       |       |
| MTTF at 25 °C (x 1,000)   | > 40                              | > 40  | > 20  | > 40                                | > 40  | > 20  |
| <i>Typical values quoted unless otherwise stated. Imatronic reserves the right to modify specifications without notice.</i> |                                   |       |       |                                     |       |       |

#### Options

- Other Wavelengths
- Wavelength Selection
- Higher Output Powers
- Customer Specific Power Settings
- Customer Specific Packaging

#### Related Products

- Line Generators
- Cross Generators
- Customer Specific Pattern Generators

#### Other Products & Services

- Laser Target Designators
- Distance Measurement
- Velocity Measurement
- Applications Consultancy
- Product and Technical Development
- Lenses and Mirrors
- Bespoke Scanning Systems

For pricing or further information please contact your local distributor.

**Otherwise contact Global Laser directly on:**  
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Distributor