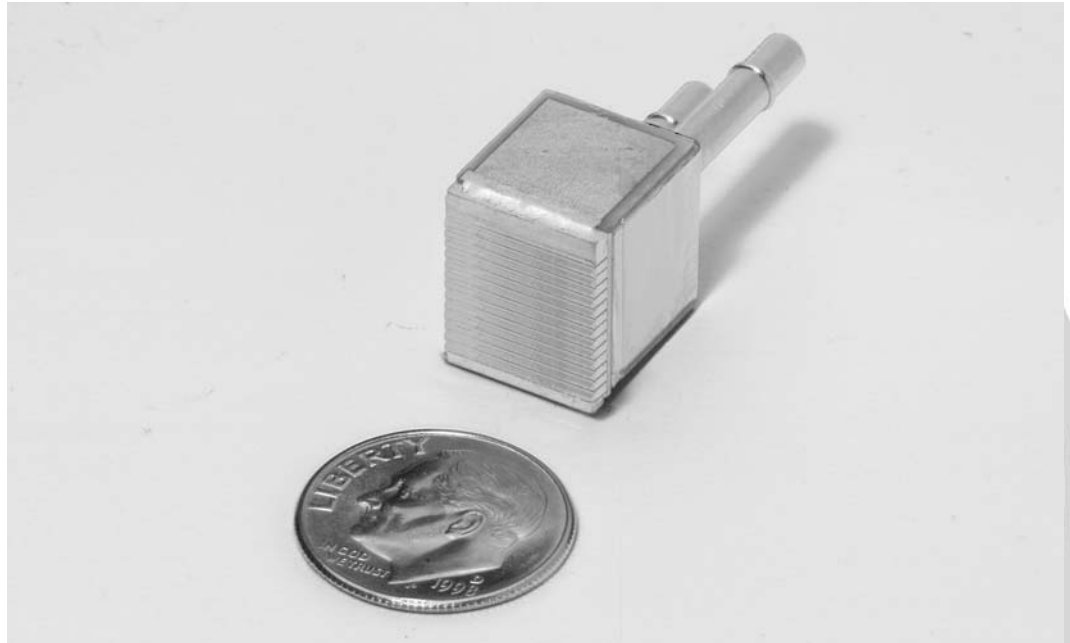


# 500W QCW Lensed Laser Diode Array

## Part Number: LAR23P500

### E2 PACKAGE

- Packaged 13-Bar Lensed Laser Diode Array
- Available Wavelengths 790-1550nm
- Other Powers Are Also Available



### OPTICAL CHARACTERISTICS

| PARAMETER             | CONDITIONS             | MIN  | TYP  | MAX  | UNITS |
|-----------------------|------------------------|------|------|------|-------|
| QCW Peak Power Output | 55A, 1 mS, 50 Hz       | 500  | ---  | ---  | W     |
| Operating Current     | 500W at 25°C Heat Sink | ---  | 74   | 80   | A     |
| Threshold Current     | 25°C Heat Sink         | ---  | 13   | 16   | A     |
| Center Wavelength     | 500W at 25°C Heat Sink | ---  | 808  | ---  | nm    |
| Wavelength Tolerance  | 500W at 25°C Heat Sink | ---  | ± 5  | ---  | nm    |
| Spectral Width FWHM   | 500W at 25°C Heat Sink | ---  | 3.0  | 4.0  | nm    |
| Wavelength Shift      | ---                    | 0.23 | 0.25 | 0.27 | nm/°C |
| Beam Divergence FWHM  | ---                    | ---  | 3x10 | ---  | ° x ° |

### ELECTRICAL CHARACTERISTICS

| PARAMETER         | CONDITIONS           | MIN | TYP   | MAX   | UNITS |
|-------------------|----------------------|-----|-------|-------|-------|
| Series Resistance | 25°C Heat Sink       | --- | 0.104 | 0.156 | ohms  |
| Operating Voltage | 25°C Heat Sink, 500W | --- | 26.0  | 29.9  | V     |

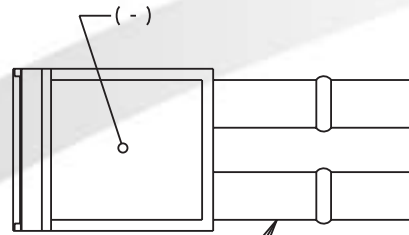
### ABSOLUTE MAXIMUM RATINGS

| PARAMETER                                  | CONDITIONS    |
|--|---------------|
| Forward Current                            | 70A           |
| Reverse Current                            | 25µA          |
| Reverse Voltage                            | 3V            |
| Operating Temperature Range <sup>(2)</sup> | -20°C to 50°C |
| Storage Temperature Range                  | -40°C to 85°C |

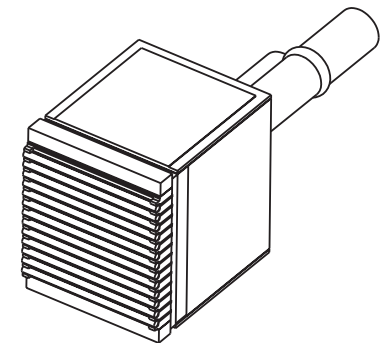
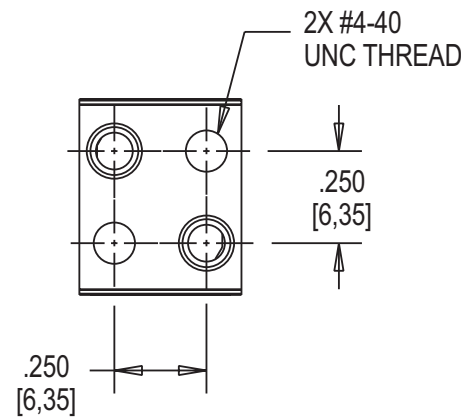
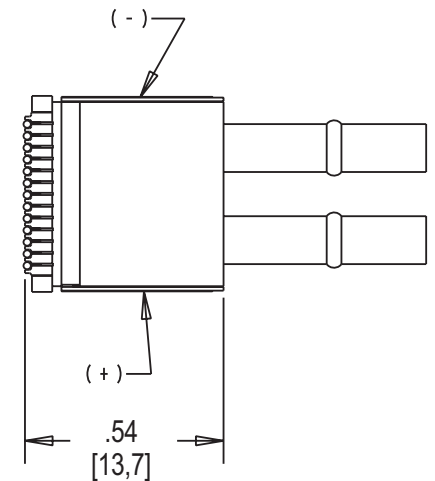
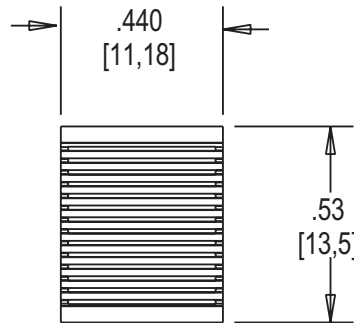
#### NOTES

- (1) These specifications apply for operations at 808nm. Other wavelengths available upon request.
- (2) A dry nitrogen environment should be provided by the user when storing and operating at temperatures below ambient dew point.

# MECHANICAL CHARACTERISTICS



2X 1/8" Tubulation  
use tubing p/n #vinl-125  
& clamp p/n #clmp-125  
from Scanivalve Corp.



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This Product is covered by one or more of the following Patents: 5,898,211 5,985,684 5,913,108 6,310,900 Other US and Foreign Patents Pending.

Laser diode product components are intended for use in a user-devised  
end system. However, these products are capable of emitting Class IV  
radiation. Extreme care must be exercised during their operation. Only  
persons familiar with the appropriate safety precautions should operate  
a laser product. Directly viewing the laser beam or exposure to specular  
reflections must be avoided. Serious injury may result if any part of the  
body is exposed to the beam. The eye is extremely sensitive to the  
infrared radiation and therefore, proper eyewear must be worn at all  
times. Use of optical instruments with these products may increase  
eye hazard. Always wear proper eye protection when operating.

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