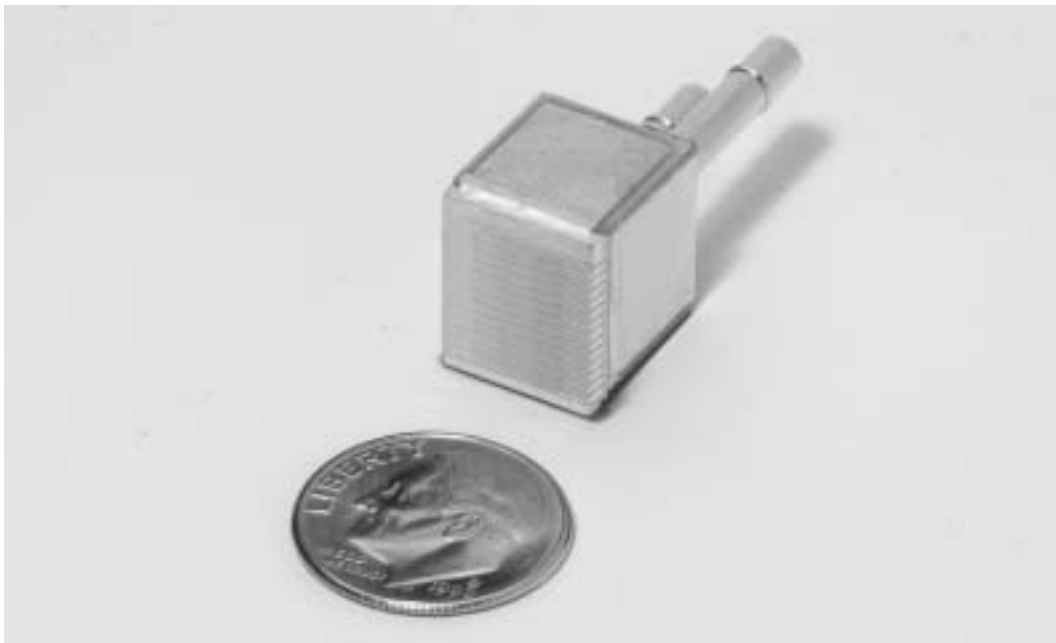


808nm 400W QCW Lensed Laser Diode Array

Part Number: LAR23P400

E2 PACKAGE

- Packaged 13-Bar Lensed Laser Diode Array
- Available Wavelengths 785-1064nm
- Other Powers Are Also Available



OPTICAL CHARACTERISTICS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
QCW Peak Power Output	55A, 150 μ sec, 1 kHz	400	---	---	W
Operating Current	400W at 25°C Heat Sink	---	45	55	A
Threshold Current	25°C Heat Sink	---	13	16	A
Slope Efficiency	25°C Heat Sink	12.35	14.3	---	W/A
Efficiency	400W at 25°C Heat Sink	35	40	---	%
Number of Emitters	---	---	72 x 13	---	
Emitter Size	---	---	90 x 1	---	μ m
Emitter Pitch	---	---	133.3	---	μ m
Center Wavelength	400W at 25°C Heat Sink	792	808	812	nm
Wavelength Tolerance	400W at 25°C Heat Sink	± 1	± 3	± 4	nm
Spectral Width	400W at 25°C Heat Sink	---	3.0	4.0	nm
Wavelength Shift	---	0.23	0.25	0.27	nm/°C
Beam Divergence FWHM ⁽¹⁾	---	---	40x10	42x12	° x °
Polarization	---	---	TE	---	---
Degradation Rate ⁽²⁾	400W 150 μ sec, 1 kHz	---	5	---	%/G shots

ELECTRICAL CHARACTERISTICS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Built-in Voltage	25°C Heat Sink	---	20.8	22.1	V
Series Resistance	25°C Heat Sink	---	0.104	0.156	ohms
Operating Voltage	25°C Heat Sink, 400W	---	26.0	29.9	V

U.S. Patent Numbers: 5,734,672 5,913,108

NOTES

(1) Lower beam divergence is also available.

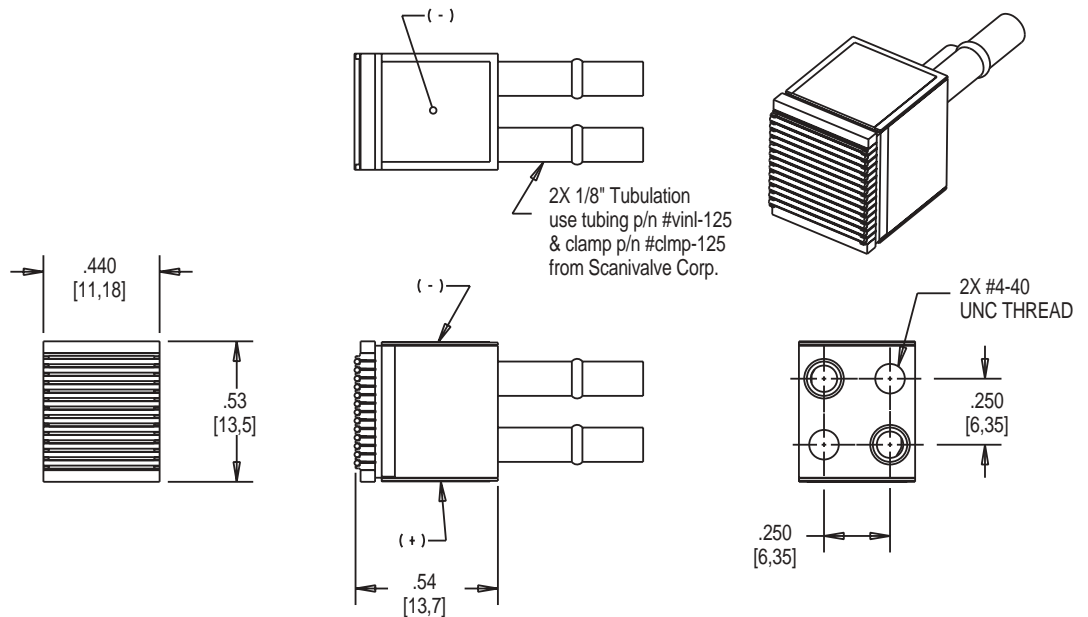
(2) Typical degradation rates are 5% in the first 10 million shots and 5% per billion shots thereafter.

ABSOLUTE MAXIMUM RATINGS

PARAMETER	CONDITIONS
Forward Current	70A
Reverse Current	25 μ A
Reverse Voltage	3V
Operating Temperature Range ⁽³⁾	-20°C to 50°C
Storage Temperature Range	-40°C to 85°C

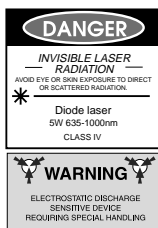
MECHANICAL CHARACTERISTICS

PARAMETER	DIMENSIONS
Package Weight	14.2 \pm 0.2g
Package Thermal Resistance	0.4°C/W



NOTES

- (3) A dry nitrogen environment should be provided by the user when storing and operating at temperatures below ambient dew point.



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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 eye-wear 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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