

The Summit™ NL-QD-Q1yzz-BSS package is a conductively cooled stacked diode laser array designed to operate at very high duty cycle. This new design features an enlarged pitch between laser diode bars to reduce thermal resistance. Pitch can be customized from 1mm to 3.5mm. The number of diode bars per stack, 'yy', depends on the pitch. Up to 20 bars per stack can be designed with about 1mm pitch on a "stretched" heat sink. This compact and rugged design is ideal where space is at a premium and high reliability is required.

Features

- Single or Multi-Wavelength
- High Efficiency
- Shock and Vibration Rugged
- Tested for Space Applications
- Low Thermal Resistance

Applications

- Target Designation
- Ranging
- LIDAR
- Space Environments
- Multi-Spectral Imaging
- Medical
- Ignition

Typical Device Performance

Package		NL-QD-Q1x20-BSS	NL-QD-Q1x20-BSS
Parameters			
Number of Diode Bars		yy = 20	yy = 10
Pitch between Diode Bars	mm	1	3.5
QCW Output Power per Diode Bar	Watt	60 to 150	60 to 150
Duty Cycle		Up to 4%	Up to 10%
Emitting Area	mm x mm	10 x 19	10 x 31.5
Threshold Current	Amp.	18	
Threshold Current (Typical)	Amp.	66 @ 60W/Bar	
Operating Current	Amp.	100 @ 100W/Bar	
Operating Current (Typical)	Amp.	145 @ 150W/Bar	
Operating Voltage	Volt	< 2 / Bar	
Total Efficiency (Typical)	%	50	
Total Efficiency (Minimum)	%	42	
Beam Divergence (FWHM)	Degree	10 x 40	

Variation of wavelength is approximately 0.26 to 0.3 nm/°C.

Standard wavelength is 808nm.

Other wavelengths 9xx nm available.

Spectral width is ≤ 4 nm FWHM.

Tolerance on wavelength is +/- 4nm.

Operating at higher power or higher temperature will accelerate component aging, increase threshold current, and decrease slope efficiency.

CFR Regulation

These components do not comply with the federal regulation (Title 21 CFR, Chapter 1, Subchapter J) as administered by the Center for Device and Radiological Health. Purchaser acknowledges that their products must comply with these regulations before they can be sold to an end-user.



Notice

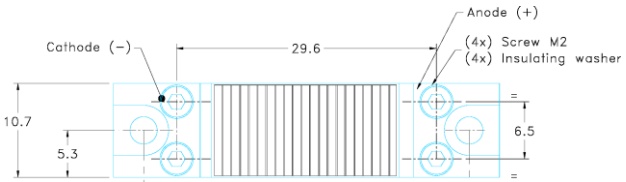
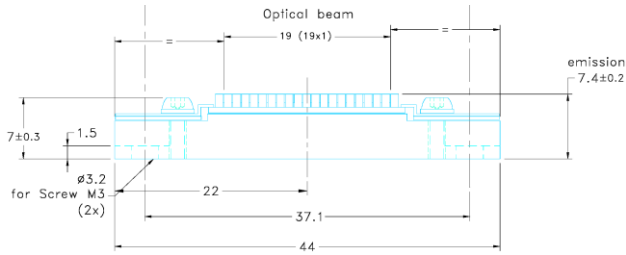
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Package Dimensions

Pitch 1mm

**AVOID EXPOSURE.
LASER RADIATION IS
EMITTED FROM THIS
APERTURE**



Pitch 3.5mm

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