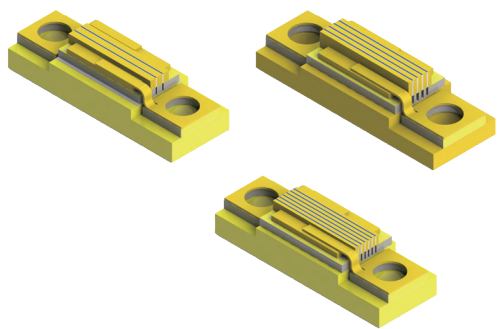


GS12 Conduction-cooled Vertical Stacked Diode Laser Array



GS12 series conduction-cooled vertical stacked diode laser array is Real-Light's self-developed laser component for wide-temperature applications. It is high-peak-power, compact and easy-to-integrate.

Key Features

- ◆ AuSn solder for packaging
- ◆ High peak power
- ◆ High reliability
- ◆ Multi wavelength integration

Applications

- Pumping source
- Scientific research

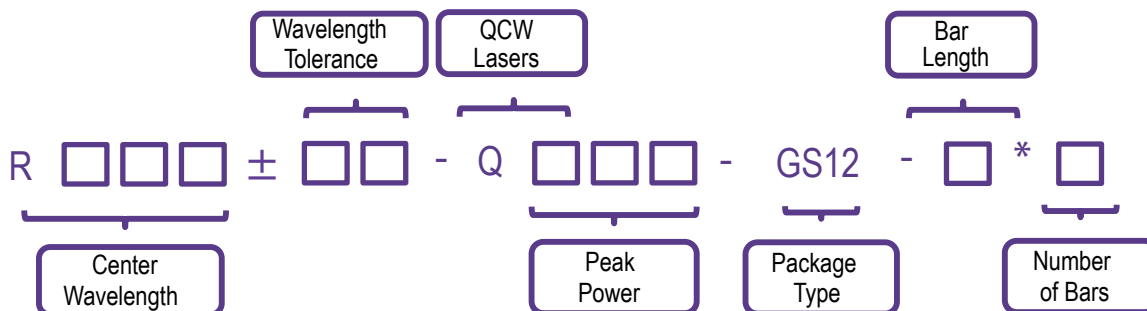
Technical Specifications

| Optical Parameters | | | |
|--|--------------------------|----------------------------|----------------------------|
| Center Wavelength λ_c (nm) | 940 | 790-812 | |
| Wavelength Tolerance $\delta\lambda_c$ (nm) | ± 5 | ± 3 | |
| Output Power per Bar (W) | 100 | 100 | 200 |
| Number of Bars | 1-2 | 3-6 | 2-4 |
| Bar Length (mm) | 10 | 10 | |
| Bar-to-Bar Pitch (mm) | 0.8 | 0.43 | 0.55 |
| Spectral Width (FWHM) (nm) | ≤ 5 | | |
| Fast Axis Divergence Angle (FWHM) ($^\circ$) | ≤ 40 | | |
| Slow Axis Divergence Angle (FWHM) ($^\circ$) | ≤ 10 | | |
| Wavelength Temperature Coefficient (nm/ $^\circ\text{C}$) | ≈ 0.35 | | |
| Electrical Parameters | | | |
| EO Conversion Efficiency (%) | ≥ 50 | | |
| Threshold Current I_{th} (A) | ≤ 20 | ≤ 20 | ≤ 30 |
| Operating Current I_{op} (A) | 100 | 100 | 220 |
| Operating Voltage V_{op} of each Bar (V) | ≤ 2.1 | | |
| Duty Cycle (%) | $\leq 3\% @ 200\text{W}$ | $\leq 0.8\% @ 600\text{W}$ | $\leq 0.6\% @ 800\text{W}$ |
| Pulse Width (μs) | ≤ 3000 | ≤ 300 | |
| Repetition Rate (Hz) | 1-10 | 1-25 | 1-20 |
| Environment Parameters | | | |
| Operating Temperature ($^\circ\text{C}$) | -40~65 | | |
| Storage Temperature ($^\circ\text{C}$) | -45~85 | | |

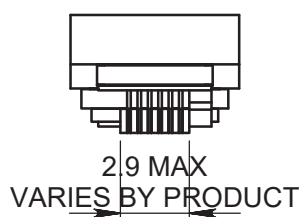
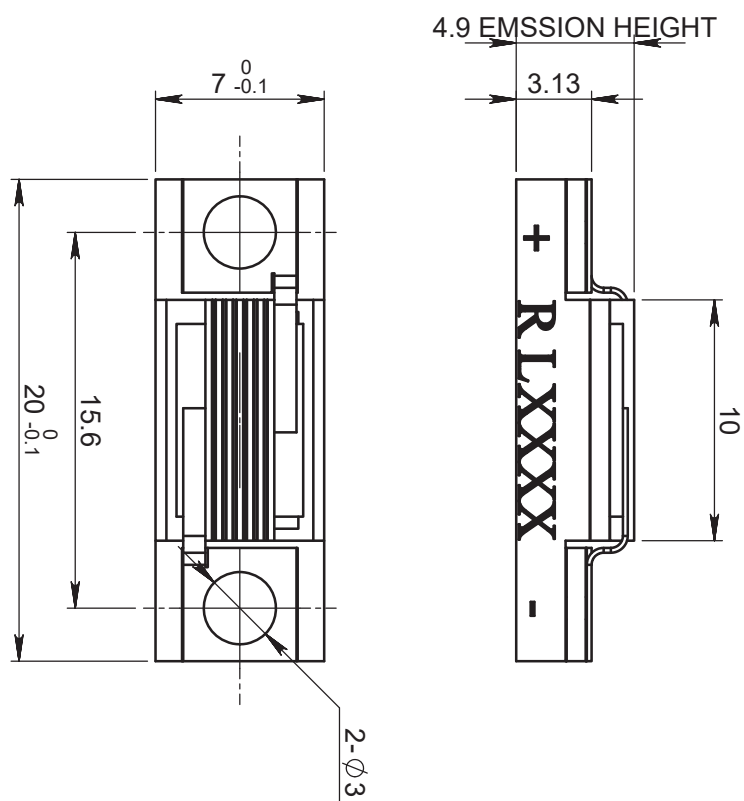
Notes:

1. Different wavelengths, numbers of bars, bar pitches and other specifications are available upon request.
2. All the data in the above table are the typical values obtained from the tests at room temperature of 25 $^\circ\text{C}$, and the final data is subject to the final test report.

Part Numbering Schema



Mechanical Drawings (in mm)



GS12-808-6bar×100W_pitch 0.43

