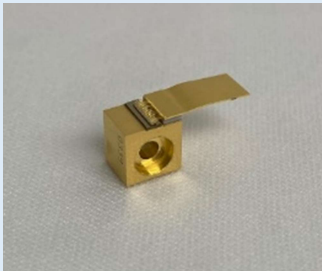


**Product Brief**

**FEATURES**

- High power & high efficiency
- Stable single spatial mode
- No astigmatism
- Robust facet passivation



**APPLICATIONS**

- Pump sources for solid-state and fiber laser amplifiers
- Seed sources for high energy solid state and fiber lasers
- Pulsed laser sources for marking
- LIDAR systems for remote sensing
- Trace gas detection

**NOTES**

1. Class 4 high power laser output. Appropriate precautions should be taken by user.
2. Devices are sensitive to electrostatic discharge (ESD). Appropriate precautions should be taken by user.

**OVERVIEW**

The 870 to 1000 nm single spatial mode diode laser offers unprecedented power output in a nearly diffraction-limited mode. The device architecture is a single-mode ridge waveguide Fabry-Perot laser structure. This laser is ideally suited for applications including resonant end-pumping of Nd and Yb-doped solid state and fiber lasers with low quantum defect. The nearly diffraction-limited output enables precise matching of the pumped gain region with the solid-state laser cavity mode and efficient coupling to single-mode fiber.

The packaging format is as follows: the device is hard-soldered junction-side down onto a C-mount package. The C-mount has a copper base with a CuW expansion-matched insert. Other heatsink formats are available including conductive submounts, ceramic submounts, 14-pin butterfly hermetically-sealed package with collimated and fiber-coupled output, and bare die/bars.

**SPECIFICATIONS**

General Parameter	Value	Unit
Rated output power	1000	mW
Operating current (typical)	~1100 (at 885 nm) ~1300 (at 980 nm)	mA
Operating voltage (typical)	< 1.9	V
Electrical-to-optical efficiency (typical)	>52	%
Heat sink temperature	20	°C
Center wavelength	870 to 1000	nm
Center wavelength tolerance	± 3	nm
Spectral bandwidth (FWHM)	0.6	nm
Spectral shift with temperature	~0.28 (at 885 nm) ~0.32 (at 980 nm)	nm / °C
Vertical fast axis divergence (FWHM)	~31	deg
Horizontal slow axis divergence (FWHM)	~6	deg

