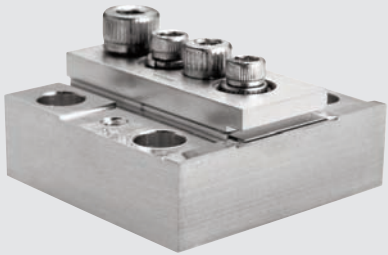




870-890 nm CCP

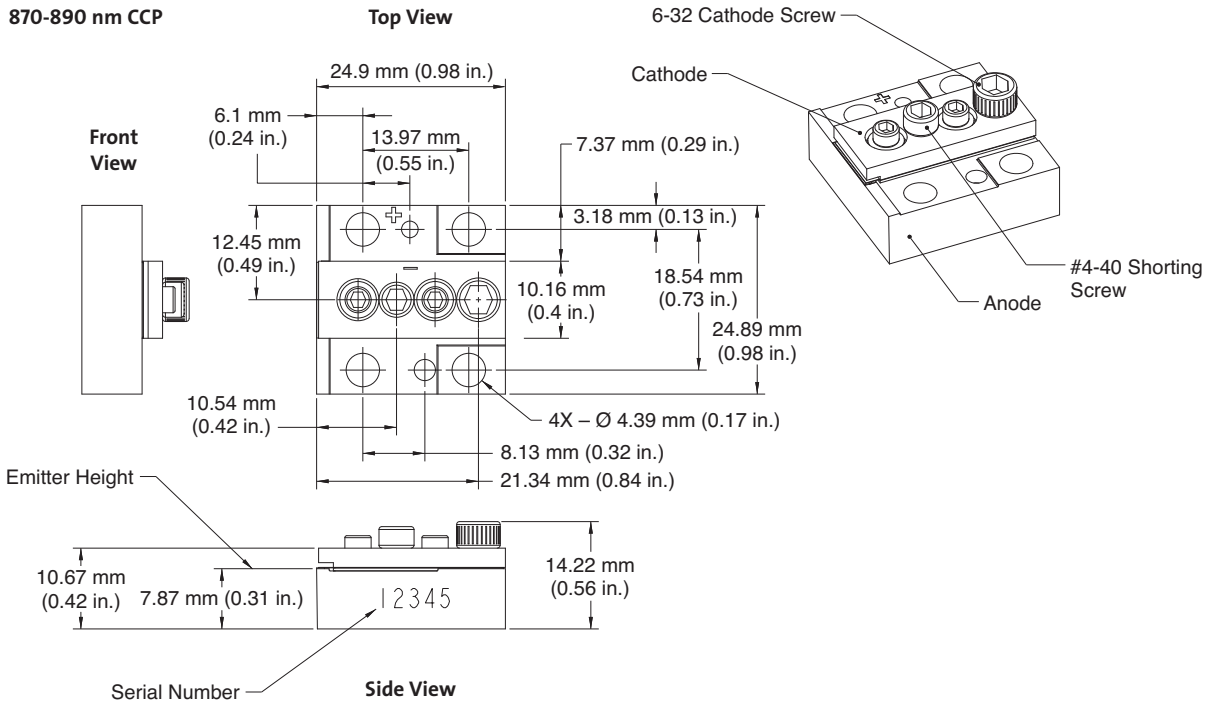
Conduction-Cooled Single Bar Package



Features

- Coherent high performance epitaxy and packaging technology for high reliability and lifetime (>20,000 hours)
- High electrical-to-optical efficiency for reduced electrical demand and simplified thermal management
- Low smile options available

Mechanical Specifications



Superior Reliability & Performance

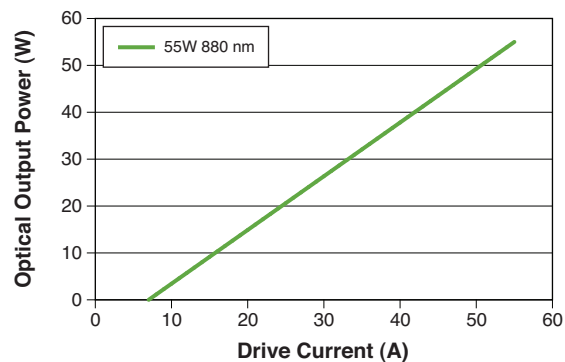
870-890 nm CCP

Conduction-Cooled Single Bar Package

Device Specifications

Description	880 nm
Intended Operation Mode	CW or QCW
Optical Output Power (W)	55
Center Wavelength (nm)(standard options, at 25°C)	880 ±3
Wavelength Temperature Coefficient (nm/°C)	0.30
Spectral Width (nm)	<3
Fill Factor	28%
Number of Emitters	19
Stripe Width (μm)	140
Polarization	TE
Operating Current (A)	<60
Operating Voltage (V)	<2.0
Fast Axis Divergence (°)(FWHM)	<35
Slow Axis Divergence (°)(FWHM)	<10
Recommended Operating Temperature (°C)	25
Recommended Operating Temperature Range (°C)	15 to 35
Storage Temperature Range (°C)	-40 to +60
Recommended Heat Sink Capacity (W)	120

Typical 870-890 nm P-I Plots



870-890 nm CCP

Conduction-Cooled Single Bar Package

Notes

- CW operation refers to an operating mode in which the diode is left on continuously for extended periods of time, typically 20 minutes or more at a time.
- QCW (quasi-continuous wave) operation refers to a high repetition rate, short-pulse mode of operation (e.g., 200 μ s pulses, 1 kHz). QCW products listed here are rated up to 20% duty cycle and pulses <1 ms long.
- Hard-pulsed operation refers to an operation mode in which the diode is repeatedly turned on and off – full current to zero current – with pulses longer than several milliseconds (e.g., 1 second on/1 second off operation).
- Please consult the factory for any requirements not listed here, including the following options which are available on a case by case basis:
 - Other bar geometries (emitter width, number of emitters)
 - Other wavelengths and spectral specifications.
 - Higher or lower operating powers.
 - Higher and/or lower operating temperatures.
 - Higher and/or lower storage temperatures.
 - Lensing options.
 - Low smile options.

Operating Notes

- Unit requires an adequate heat sink. Failure to supply an adequate heat sink will destroy the unit.
- Indium foil should be used between base of diode and heatsink to ensure good thermal contact.
- Mounting torque 8 in.-lbs. (with Indium foil).
- ESD precautions must be taken when handling unit.
- Negative current transients greater than 25 μ A and/or reverse voltages >3V can destroy the unit.
- A dry environment should be provided when storing or operating a device with an open diode laser facet at temperatures below the ambient dew point. Failure to do so will cause condensation on the unit and can destroy it.
- Output powers in excess of specification will accelerate device aging.
- Operation at higher temperatures will accelerate device aging, increase threshold current, and lower slope efficiency.
- Care should be taken to avoid back-reflections into the device. Failure to do so can destroy the unit.

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all CCPs. For full details of this warranty coverage, please refer to the Service section at www.Coherent.com or contact your local Sales or Service Representative.



www.Coherent.com

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