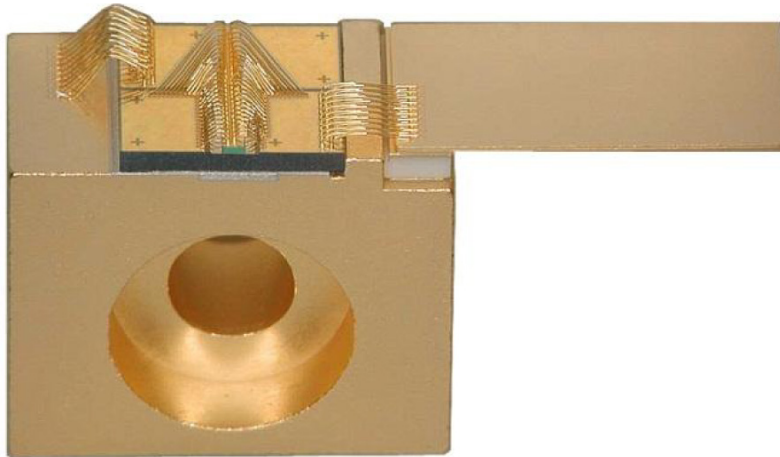


9 W 9xx nm 90 μm HIGH POWER SINGLE EMITTER LASER DIODE ON C-MOUNT


SEC9-9xx-01

The Coherent SEC9-9xx-01 single emitter laser diode series has been designed to provide the high output power, high coupling efficiency and high reliability required for pumping next generation fiber lasers and for other high power laser diode applications.

The proprietary E2 front mirror passivation process, developed at our Zurich site, prevents Catastrophic Optical Damage (COD) to the laser diode facet even at extremely high output powers. The single emitter laser diodes are p-side down mounted on a submount that is attached to a C-mount.



FEATURES

- 3.6 mm x 0.4 mm laser diode
- 90 μm wide emitter
- Cu C-Mount
- 9 W operating power (p-side down mounted)
- Highly reliable single quantum well MBE structure
- Standard wavelength at 915, 940, and 975 nm (other available on request)
- RoHS compliant 

APPLICATIONS

- Solid-state laser pumping
- Medical
- Analytical
- Printing

9 W 9xx nm 90 μm HIGH POWER SINGLE EMITTER LASER DIODE ON C-MOUNT

Characteristics

Parameters at 25 °C

Parameter	Symbol	Typ	Unit
CW Output Power	P_{op}	9	W
Center Wavelength ¹			
SEC9-915-01	λ_c 915	915 ± 10	nm
SEC9-940-01	λ_c 940	940 ± 10	
SEC9-975-01	λ_c 975	975 ± 10	
Spectral Width (FWHM)	$\Delta\lambda$	4	nm
Wavelength Shift with Temperature	$d\lambda_c/dT_{op}$	0.3	nm/°C
Beam Divergence (FWHM)			
Parallel to Junction	$\theta_{//}$	8	deg
Perpendicular to Junction	θ_{\perp}	23	
Polarization	–	TE	–
Threshold Current	I_{th}	500	mA
Slope Efficiency	$\eta_D = P_{op}/(I_{op} - I_{th})$	1.0	W/A
Conversion Efficiency	$H = P_{op}/(V_{op} \times I_{op})$	> 50	%
Series Resistance	R_s	0.03	Ω
Operating Current	I_{op}	9.5	A
Operating Voltage	V_{op}	1.9	V
Operating Temperature	T_{op}	25 ± 5	°C

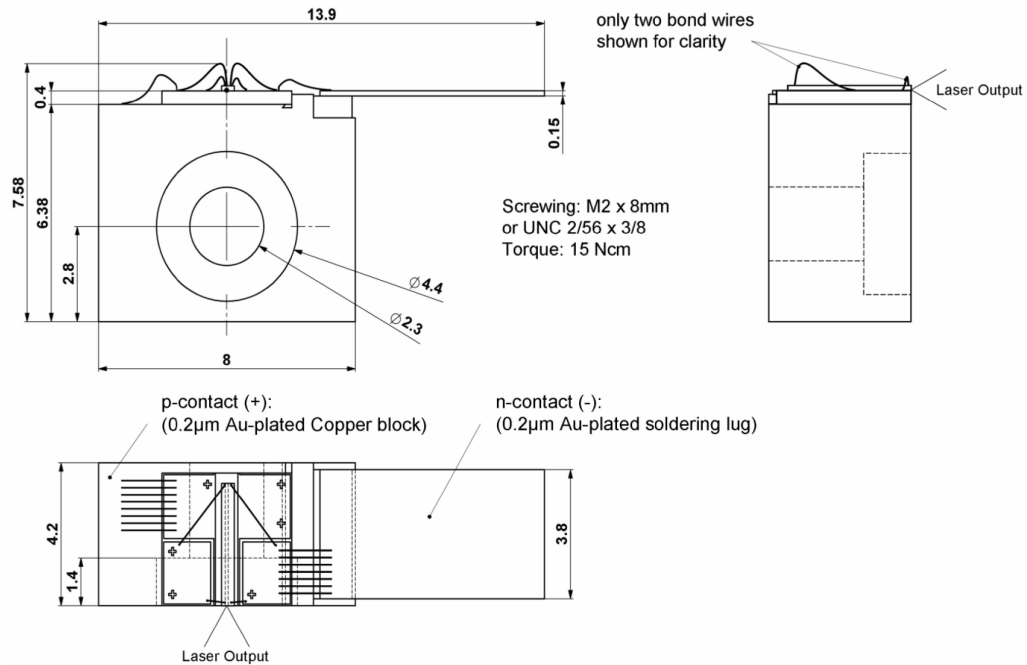
¹ Reduced wavelength window available on request.

Chip Dimensions

Parameter	Symbol	Typ	Unit
Chip Width	b	400	μm
Resonator Length	l	3600	μm
Chip Thickness	d	150	μm
Emitter Width	w	90	μm

9 W 9xx nm 90 μm HIGH POWER SINGLE EMITTER LASER DIODE ON C-MOUNT

Package Dimensions (mm)



RoHS Compliance

Coherent is fully committed to environment protection and sustainable development and has set in place a comprehensive program for removing polluting and hazardous substances from all of its products. The relevant evidence of RoHS compliance is held as part of our controlled documentation for each of our compliant products. RoHS compliance parts are available to order, please refer to the ordering information section for further details.

Ordering Information

SEC9-915-01	9 W 915 nm Single Emitter Laser Diode on C-mount
SEC9-940-01	9 W 940 nm Single Emitter Laser Diode on C-mount
SEC9-975-01	9 W 975 nm Single Emitter Laser Diode on C-mount

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by Coherent before they become applicable to any particular order or contract. In accordance with the Coherent policy of continuous improvement specifications may change without notice. Further details are available from any Coherent sales representative.

Safety Labels



Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.