

3.5W 808nm High Power Single Emitter Laser Diode on C-mount

SEC3-808-01

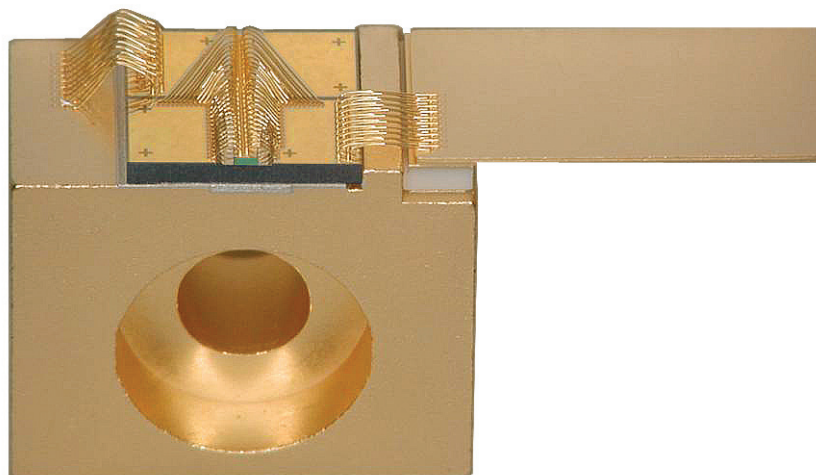
The Bookham SEC3-808-01 single emitter laser diode has been designed to provide the high output power, high coupling efficiency and high reliability required for both solid-state laser pumping and direct laser applications. The proprietary E2 front mirror passivation process, developed at our Zurich 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:

- 3.6mm x 0.4mm laser diode
- 90µm wide emitter
- Cu C-Mount
- 3.5W operating power (p-side down mounted)
- Highly reliable single quantum well MBE structure
- RoHS compliant 

Applications:

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



Characteristics

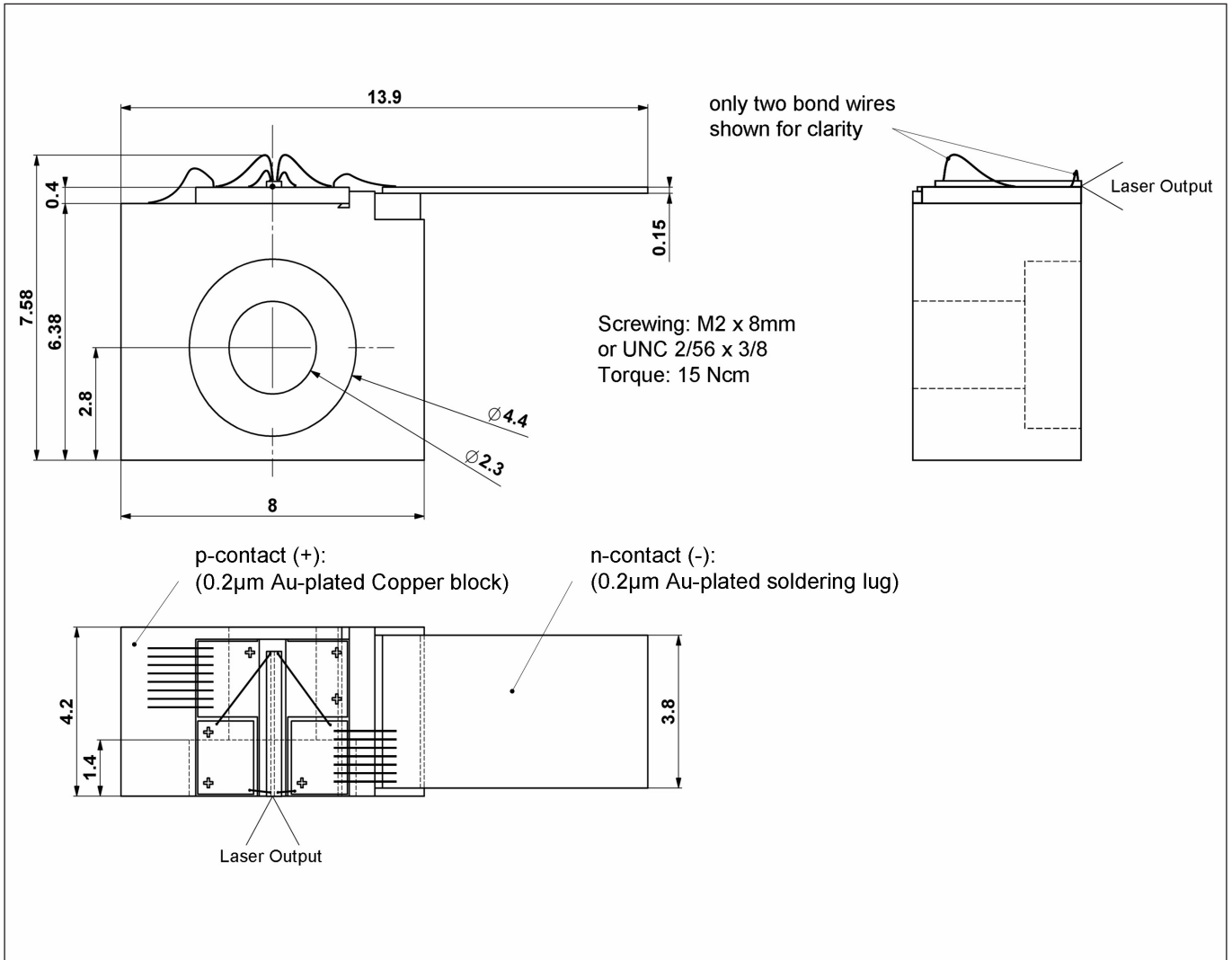
Parameter	Symbol	Typical	Unit
CW Output Power	P_{op}	3.5	W
Center Wavelength [1]	λ_c	808 ± 8	nm
Spectral Width (FWHM)	$\Delta\lambda$	2	nm
Wavelength Shift with Temperature	$d\lambda_c/dT_{op}$	0.3	nm/°C
Beam Divergence (FWHM) Parallel to Junction Perpendicular to Junction	$\theta_{//}$ $\theta_{\perp}$	6 27	deg
Polarization	–	TM	–
Threshold Current	I_{th}	600	mA
Slope Efficiency	$\eta_D = P_{op}/(I_{op} - I_{th})$	1.1	W/A
Conversion Efficiency	$H = P_{op}/(V_{op} \times I_{op})$	50	%
Series Resistance	R_s	0.03	Ω
Operating Current	I_{op}	3.7	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	Typical	Unit
Chip Width	b	400	μm
Resonator Length	l	3600	μm
Chip Thickness	d	150	μm
Emitter Width	w	90	μm

Package Dimensions (mm)



RoHS Compliance



Bookham 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:

SEC3-808-01 3.5W 808nm Single Emitter Laser Diode on C-mount

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