


60W 808nm 27% Fill Factor High Power Laser Diode Bar on Passive Cu Block Cooler

OPC808-60C-641

Features:

- Mounted 10mm laser diode bar
- Passive 1" x 1" Cu block cooler
- 27% fill factor (135µm emitter / 500µm pitch)
- 60W operating power
- Highly reliable single quantum well MBE structure
- Telecom grade AuSn mounting technology
- Standard wavelength at 808nm (others available on request)
- RoHS compliant 

Applications:

- Collimated solid state laser pumping
- Direct applications such as material processing
- Printing
- Medical



The Oclaro OPC808-60C-641 27% fill factor laser diode bar on passive cooler series has been designed to provide the high output power and high reliability required for both solid-state laser pumping and direct 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 laser diode bars are mounted on an expansion matched submount onto a Cu block package providing very high reliability in CW and pulsed (1-Hz type) applications.

Characteristics

Parameter	Symbol	Typical	Unit
CW Output Power	P_{op}	60	W
Center Wavelength ^[1]	λ_c	808 ± 3	nm
Spectral Width (FWHM)	$\Delta\lambda$	3	nm
Wavelength shift with temperature	$d\lambda_c/dT_{op}$	0.25	nm/°C
Beam Divergence FWHM / 90% of Power Parallel to Junction Perpendicular to Junction	$\theta_{//}$ θ_{\perp}	7 / 7.5 26 / 45	deg
Polarization ^[2]	–	TE	
Threshold Current	I_{th}	9	A
Slope Efficiency	$\eta_D = P_{op} / (I_{op} - I_{th})$	1.28	W/A
Conversion Efficiency	$H = P_{op} / (V_{op} \times I_{op})$	59	%
Operating Current	I_{op}	56	A
Operating Voltage	V_{op}	1.75	V
Operating Temperature	T_{op}	25 ± 5	°C

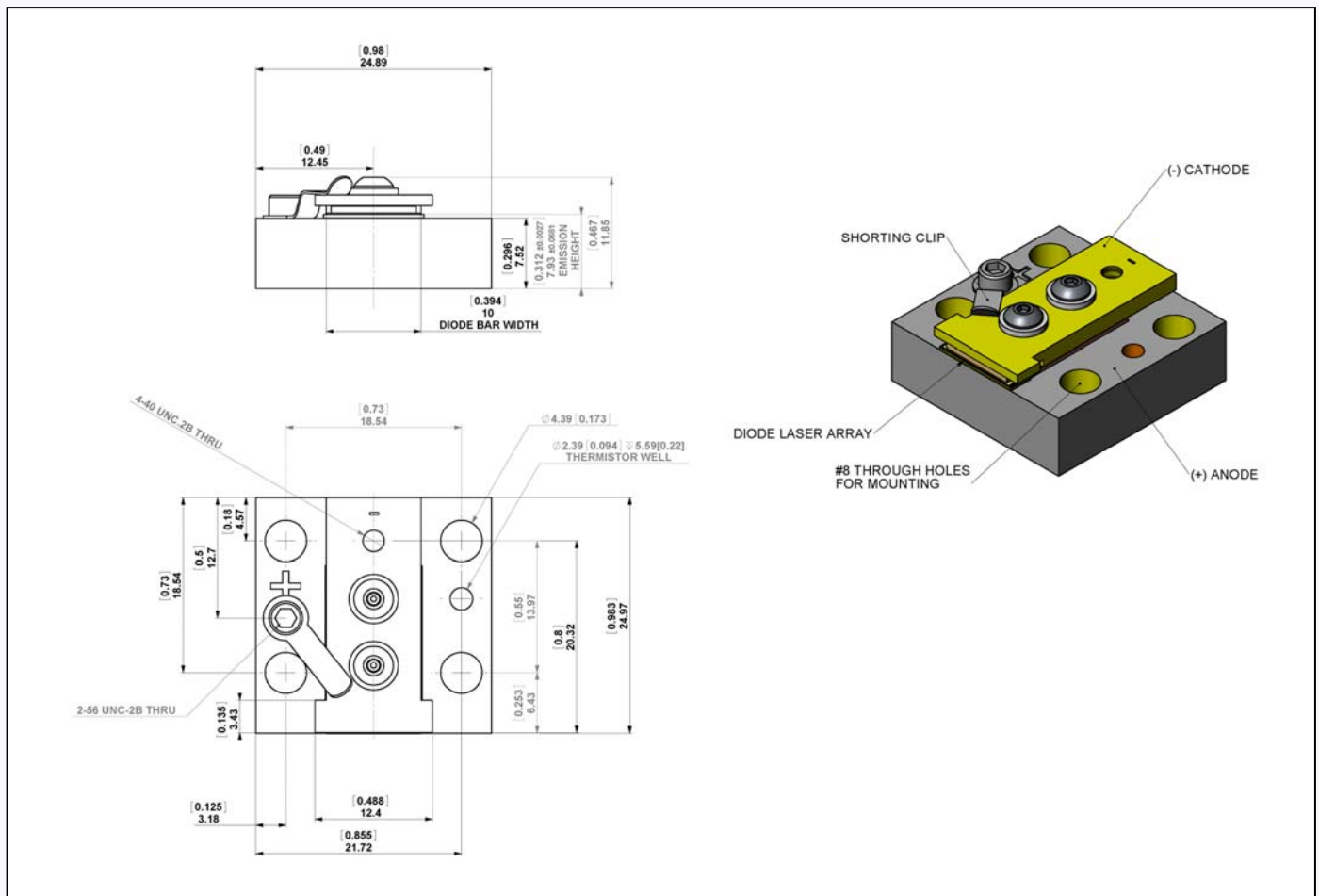
[1] Reduced wavelength window / extended range available on request (790-830nm).

[2] Direction of polarization is parallel to the bar.

Bar Dimensions

Parameter	Symbol	Typical	Unit
Bar Width	b	10	mm
Number of Emitters	n	19	-
Emitter Spacing	p	500	µm
Emitter Width	w	135	µm
Fill Factor	f	27	%
Bar Smile (when mounted)	s	<2	µm

Passive Cu Block Cooler Dimensions (mm)



RoHS Compliance



Oclaro 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:

OPCxxx-60C-641r 60W 27% Fill Factor Laser Diode Bar on Passive Cu Block Cooler
 xxx is the center wavelength between 790 and 830nm,
 r indicates wavelength tolerance and smile (see table)

smile \ WL	> ±5nm	≤ ±5nm	≤ ±3nm
> ±2.0µm	A	B	C
≤ ±2.0µm	F	G	H
≤ ±1.5µm	L	M	N

Contact Information

www.oclaro.com

Important Notice

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BH12902 Rev 1.1 May 2011
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