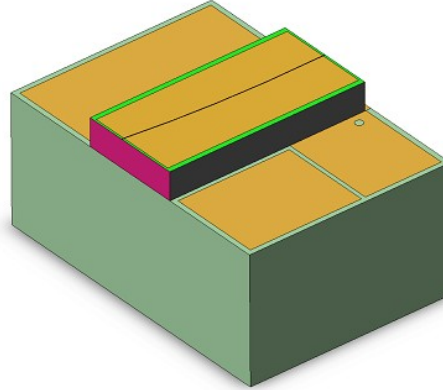


SAF 1093: 1450nm Single Angled Facet Gain Chip

7.1.2.SP.1093 Rev B

Description

COVEGA's Single Angled Facet (SAF) gain chip is a high-power InP active waveguide gain element. The proprietary SAF design produces low modal reflectance at the angled facet and optimum reflectance at the normal facet. This unique combination of ridge waveguide laser design and broadband low angled facet reflectance makes the SAF ideally suited for use as the gain component in high-power widely tunable external cavity lasers.



Features

Applications

- | | |
|---|--|
| <ul style="list-style-type: none"> ✓ Gain medium for widely tunable external cavity semiconductor lasers ✓ Gain medium for narrow line-width fiber Bragg Grating Lasers | <ul style="list-style-type: none"> → Broad tuning range → High Output Power → Low Angled Facet Reflectivity |
|---|--|

Specifications

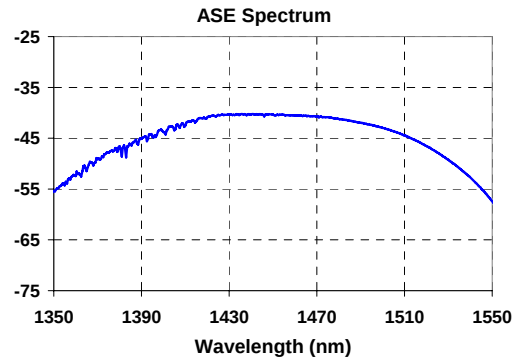
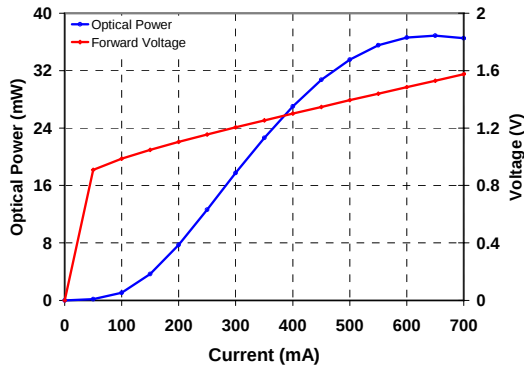
CW; T (Chip) = 25°C

Parameter		Min	Typ	Max	
Operating Current	I_{OP}		500	800	mA
Center Wavelength	λ	1420	1450	1480	nm
ASE Power @ IOP	P_{out}	10	20		mW
Peak Gain @ IOP	G		33		dB
Optical Bandwidth	BW	80	95		nm
Gain Ripple (rms) @ IOP (Res. BW = 0.1 nm)			0.3	1	dB
Angled Facet Reflectivity	R1			0.5	%
Normal Facet Reflectivity	R2		90		%
Forward Voltage	V_F		1.4	1.8	V
Chip Length	L		1.5		mm
Lateral Beam Exit Angle	θ_{EXT}		26.5		deg
Beam Divergence Angle (FWHM)					
- Transverse Beam	θ_T	20	30	40	deg
- Lateral Beam	θ_L	10	20	30	deg
SPECIFICATIONS SUBJECTED TO CHANGE WITHOUT NOTICE					

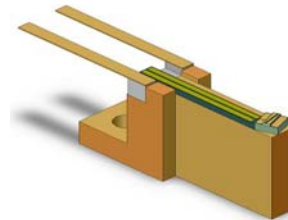
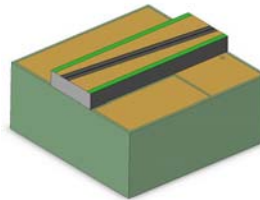
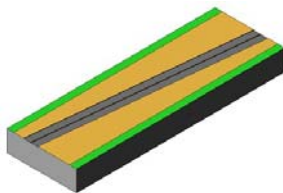
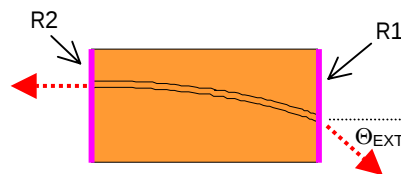
The picture is a representation. The actual part may vary from the one shown.

SAF 1093

Performance



Packaging



Bare Die

Chip on Submount

Chip on Heatsink

Ordering Information

SAF 1093 - XX - XX - XXX			
XX	XX	XXX	
ECL Peak Wavelength	R2 Reflectivity	Submount	
NA	10 = 10%	DIE = Bare Die	
NA	90 = 90%	COS = Chip on Submount	
	ZZ = Custom	HTS = Heatsink	
		TH5 = TO-56 Header	

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