

Datasheet for #sbcw23913 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

WARNING: Operating the laser with higher current or voltage than specified in this document may cause damage and will result in loss of warranty, unless Alpes Lasers has permitted to do so!

WARNING: Beware of the polarity of the laser. This laser has to be powered with negative bias and positive bias on the specific zones drawn below. To be used with a high compliance CW laser driver capable of reaching the operating current and voltage indicated in this datasheet, or up to 2.5A/20V.

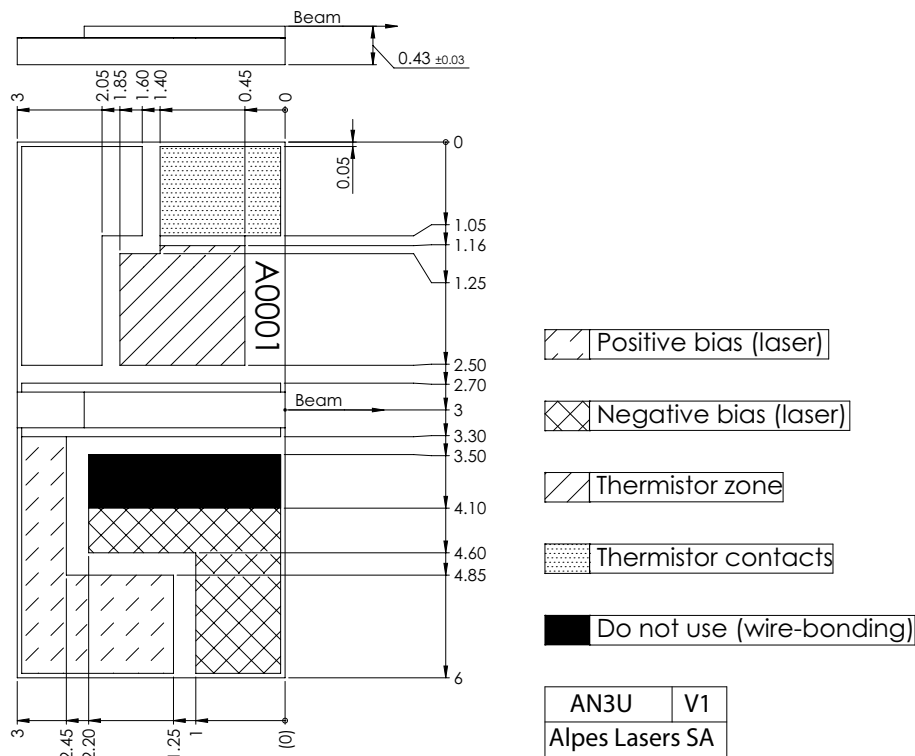


Figure 1: Mechanical and electrical interface for #sbcw23913 DN (please note that AlN submount numbering is A0XRR)

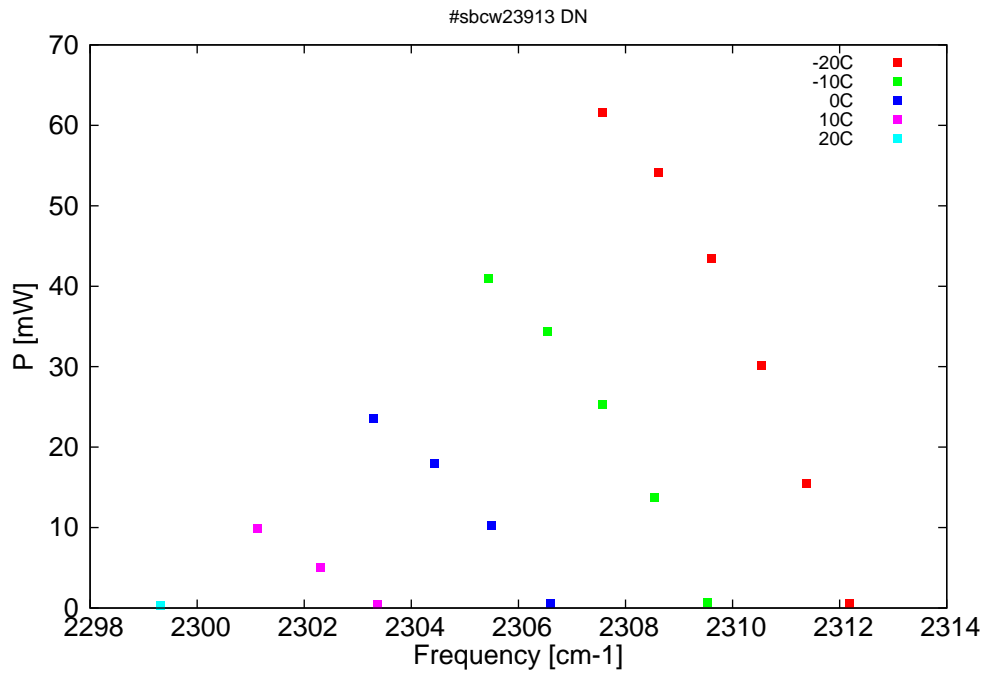


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

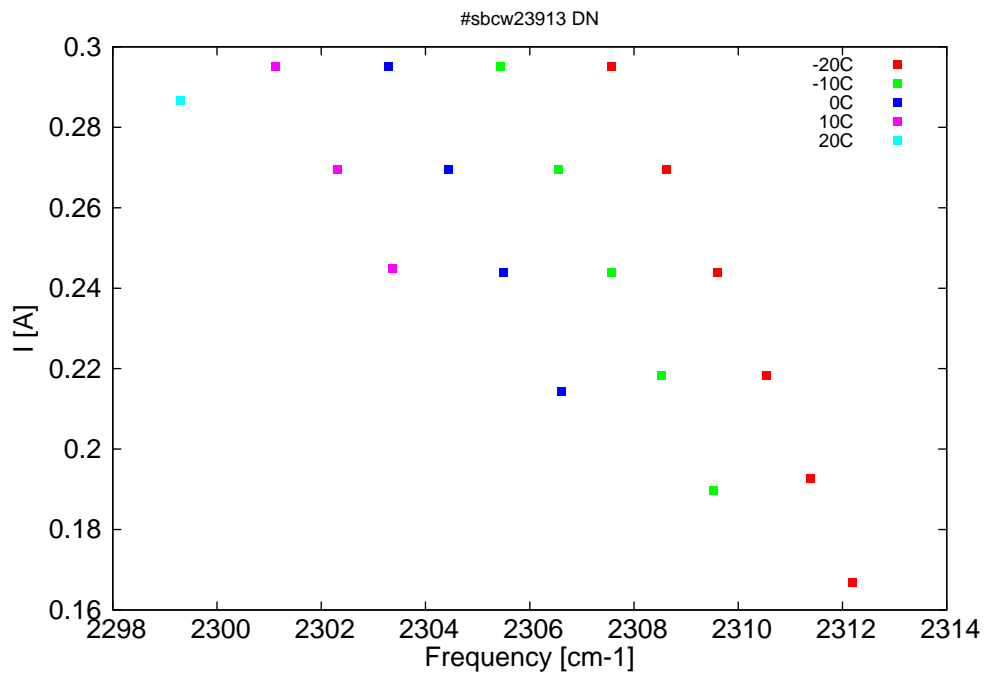


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4324.9	2312.2	0.5	-20	11.97	0.167
4326.4	2311.4	15.4	-20	12.16	0.193
4328	2310.5	30.2	-20	12.36	0.218
4329.7	2309.6	43.4	-20	12.56	0.244
4331.6	2308.6	54.1	-20	12.75	0.27
4333.6	2307.6	61.6	-20	12.95	0.295
4329.9	2309.5	0.6	-10	12.06	0.19
4331.7	2308.5	13.7	-10	12.27	0.218
4333.6	2307.6	25.3	-10	12.47	0.244
4335.5	2306.5	34.3	-10	12.67	0.27
4337.6	2305.4	41	-10	12.87	0.295
4335.4	2306.6	0.5	0	12.19	0.214
4337.5	2305.5	10.2	0	12.4	0.244
4339.5	2304.4	17.9	0	12.59	0.27
4341.6	2303.3	23.6	0	12.79	0.295
4341.5	2303.4	0.4	10	12.36	0.245
4343.5	2302.3	5.1	10	12.53	0.27
4345.7	2301.1	9.8	10	12.73	0.295
4349.1	2299.3	0.3	20	12.63	0.287

Table 1: Singlemode optical output power as function of operating parameters.

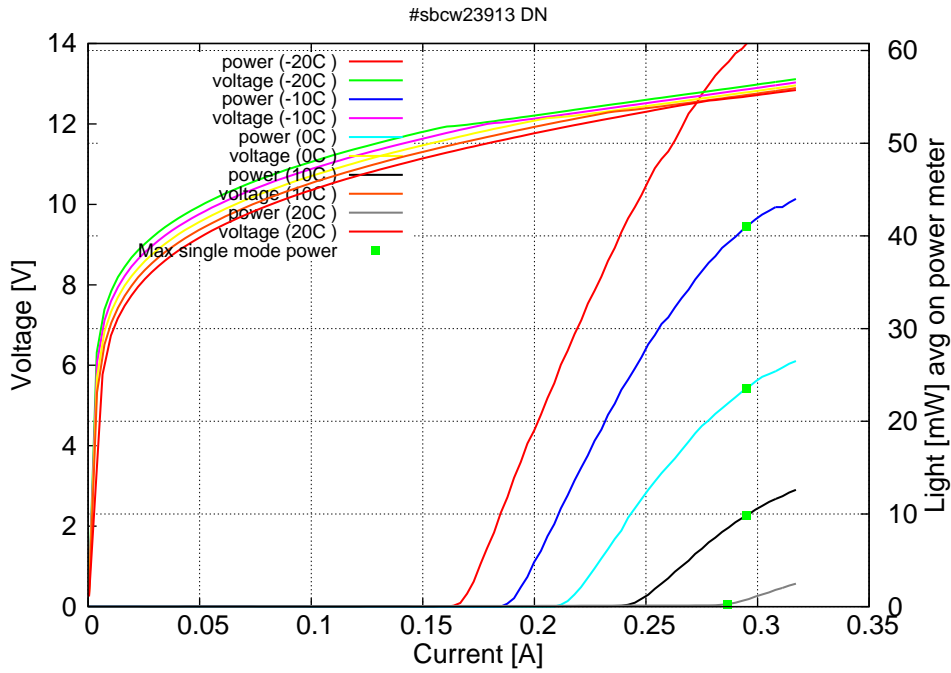


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.16A$ / $V_{th}=11.9V$ (2-wires measurements). Maximum operation current: 0.320A for all temperatures.

