

Datasheet for #sbcw23906 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.

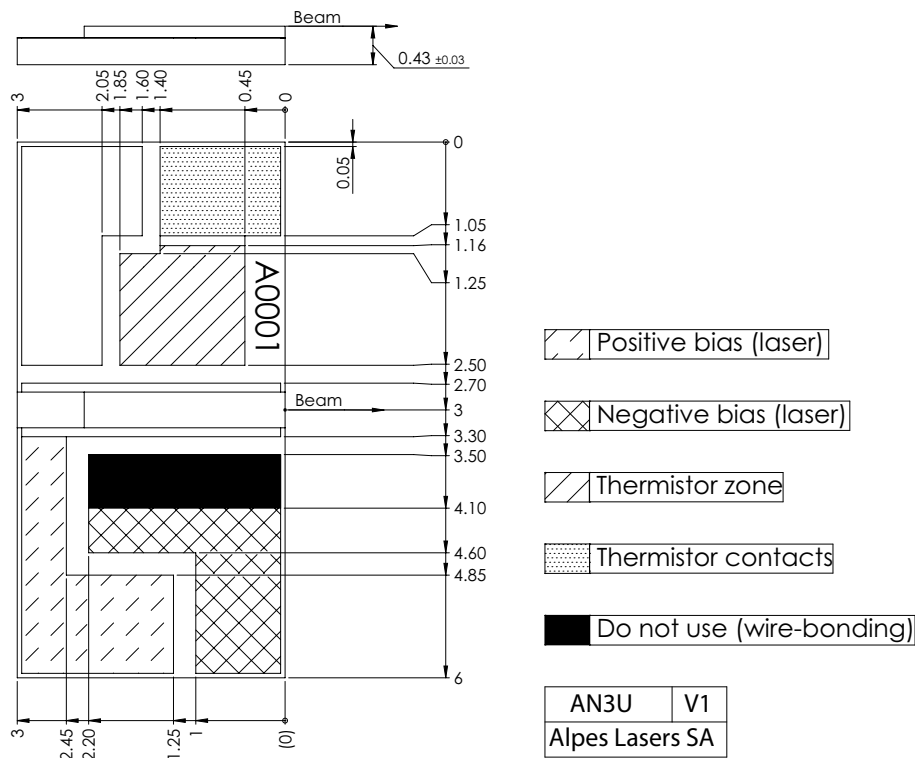


Figure 1: Mechanical and electrical interface for #sbcw23906 DN (please note that AlN submount numbering is A0YC9)

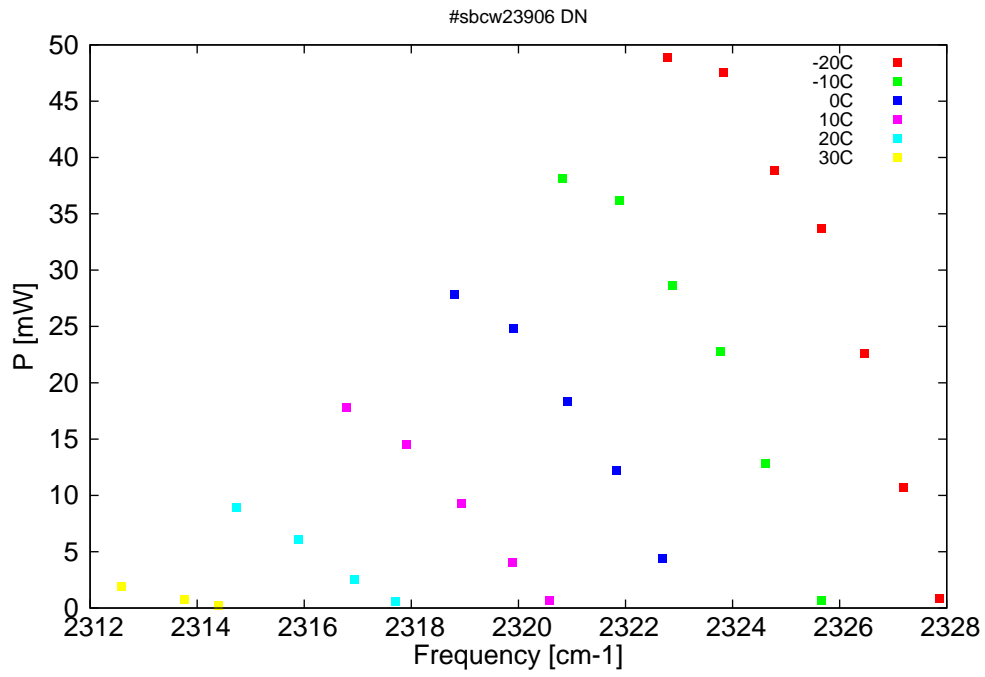


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

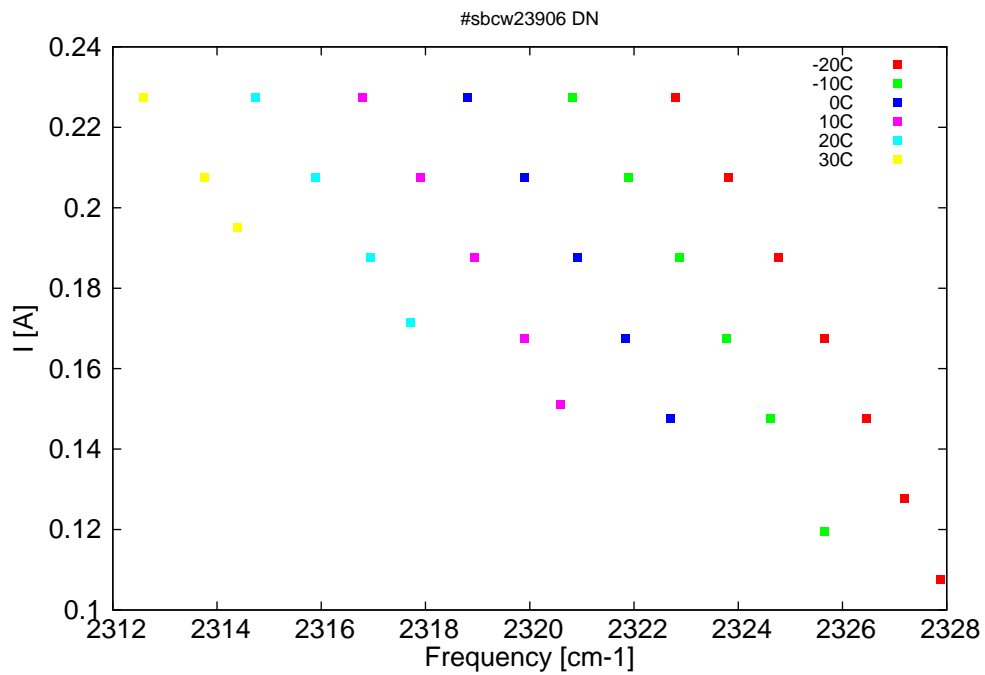


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4295.8	2327.9	0.8	-20	12.8	0.108
4297	2327.2	10.7	-20	13.09	0.128
4298.4	2326.5	22.6	-20	13.39	0.148
4299.9	2325.7	33.7	-20	13.7	0.168
4301.5	2324.8	38.8	-20	13.99	0.188
4303.3	2323.8	47.6	-20	14.29	0.208
4305.2	2322.8	48.9	-20	14.59	0.228
4299.9	2325.7	0.7	-10	12.89	0.12
4301.8	2324.6	12.9	-10	13.28	0.148
4303.3	2323.8	22.8	-10	13.57	0.168
4305	2322.9	28.7	-10	13.87	0.188
4306.8	2321.9	36.2	-10	14.16	0.208
4308.8	2320.8	38.2	-10	14.45	0.228
4305.3	2322.7	4.4	0	13.18	0.148
4306.9	2321.8	12.2	0	13.46	0.168
4308.6	2320.9	18.3	0	13.74	0.188
4310.5	2319.9	24.8	0	14.03	0.208
4312.6	2318.8	27.8	0	14.32	0.228
4309.3	2320.6	0.6	10	13.16	0.151
4310.5	2319.9	4.1	10	13.36	0.168
4312.3	2318.9	9.3	10	13.64	0.188
4314.2	2317.9	14.5	10	13.91	0.208
4316.3	2316.8	17.8	10	14.2	0.228
4314.6	2317.7	0.5	20	13.37	0.172
4316	2316.9	2.5	20	13.56	0.188
4318	2315.9	6.1	20	13.82	0.208
4320.1	2314.7	8.9	20	14.09	0.228
4320.8	2314.4	0.2	30	13.65	0.195
4322	2313.8	0.7	30	13.79	0.208
4324.1	2312.6	1.9	30	14.05	0.228

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

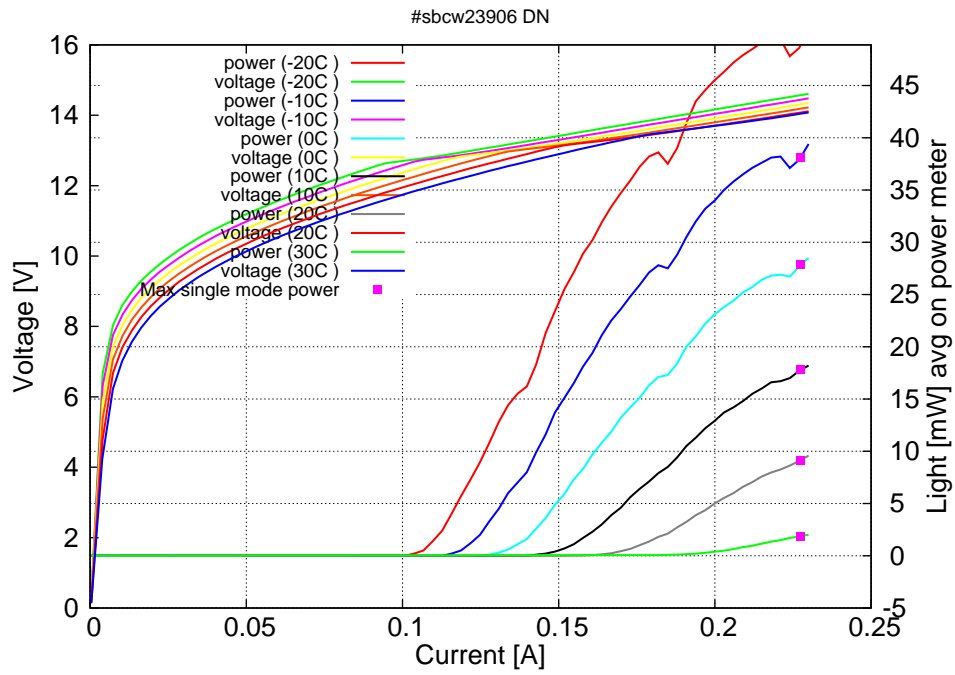


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.11A$ / $V_{th}=12.8V$ (2-wires measurements). Maximum operation current: 0.23A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

