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Datasheet for #sbcw26538 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at
`https://www.alpeslasers.ch/resources/#faq`

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.

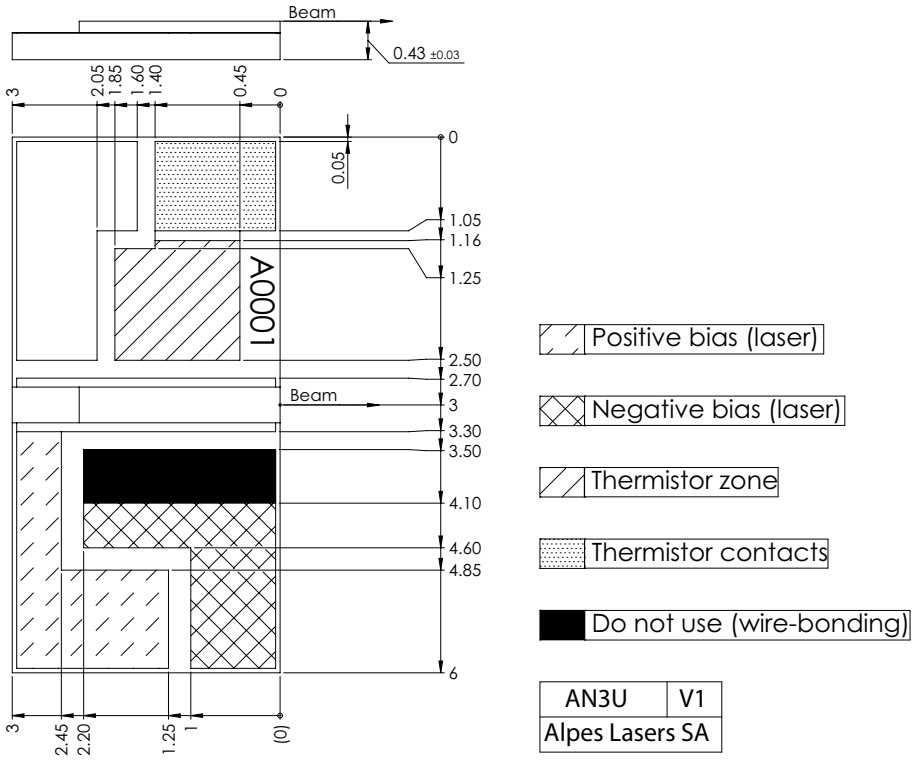

Figure 1: Mechanical and electrical interface for #sbcw26538 DN (please note that AlN submount numbering is A0V1C)

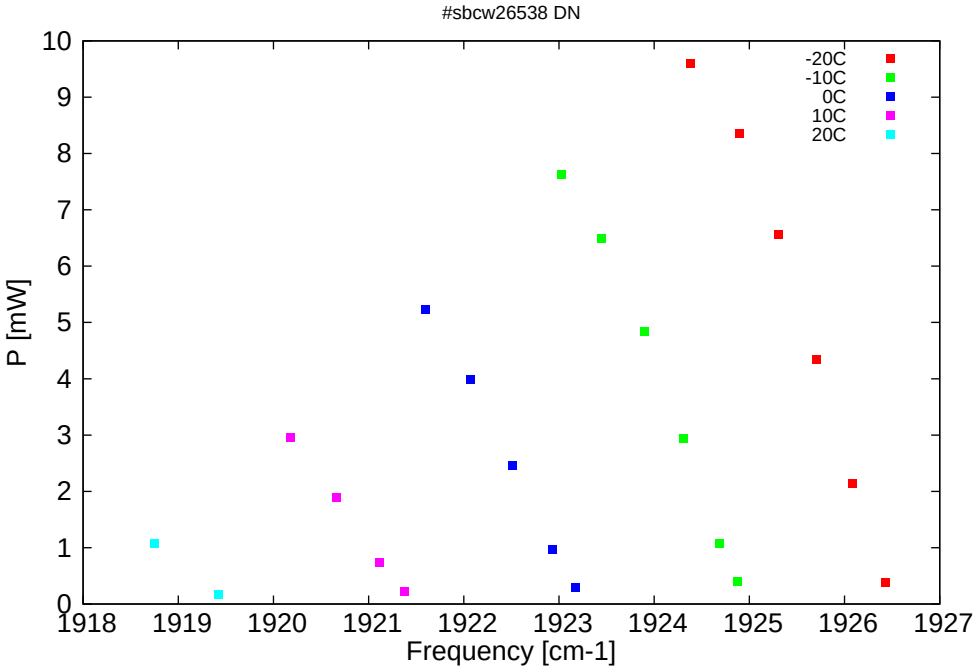

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

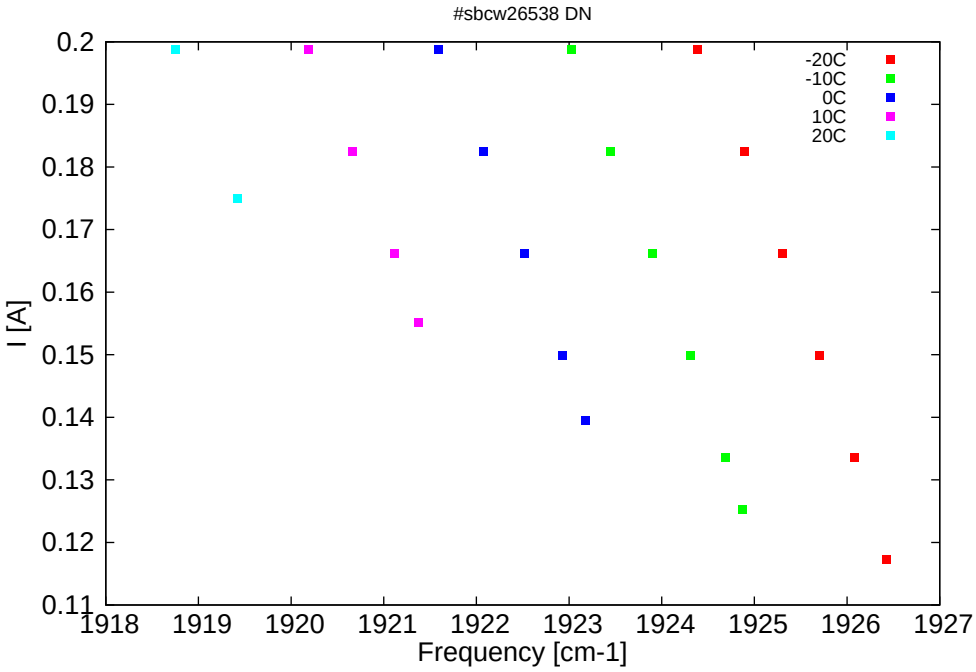

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
5191	1926.4	0.4	-20	8.94	0.117
5191.9	1926.1	2.1	-20	9.18	0.134
5192.9	1925.7	4.3	-20	9.43	0.15
5194	1925.3	6.6	-20	9.7	0.166
5195.1	1924.9	8.4	-20	9.99	0.183
5196.5	1924.4	9.6	-20	10.29	0.199
5195.1	1924.9	0.4	-10	8.97	0.125
5195.6	1924.7	1.1	-10	9.07	0.134
5196.7	1924.3	2.9	-10	9.31	0.15
5197.8	1923.9	4.8	-10	9.56	0.166
5199	1923.4	6.5	-10	9.83	0.183
5200.1	1923	7.6	-10	10.12	0.199
5199.7	1923.2	0.3	0	9.08	0.139
5200.4	1922.9	1	0	9.21	0.15
5201.5	1922.5	2.5	0	9.44	0.166
5202.7	1922.1	4	0	9.69	0.183
5204	1921.6	5.2	0	9.96	0.199
5204.6	1921.4	0.2	10	9.22	0.155
5205.3	1921.1	0.7	10	9.35	0.166
5206.5	1920.7	1.9	10	9.58	0.183
5207.8	1920.2	3	10	9.84	0.199
5209.9	1919.4	0.2	20	9.44	0.175
5211.7	1918.7	1.1	20	9.75	0.199

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

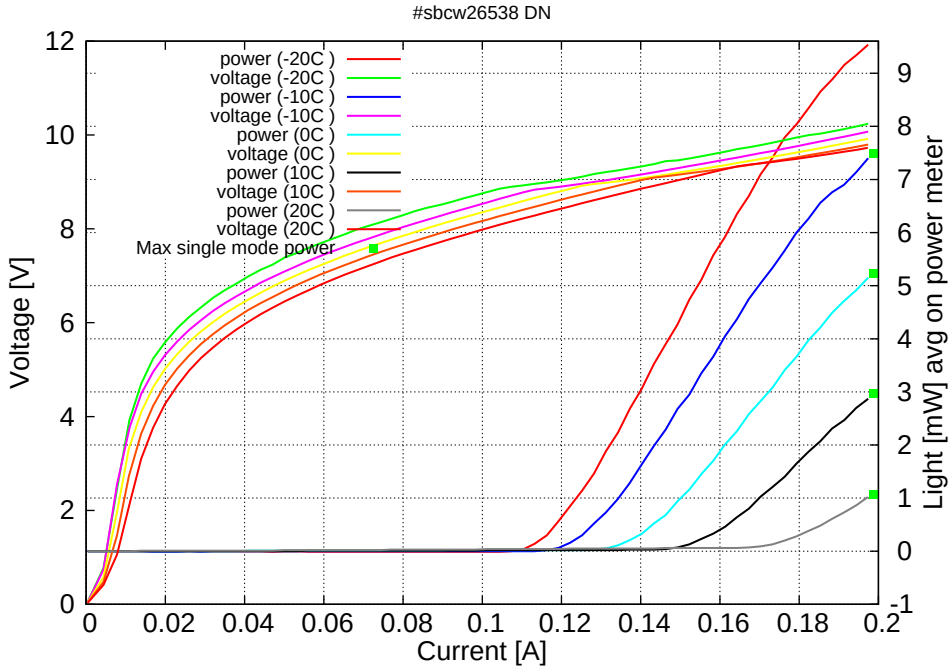

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.11A / Vth=9.0V (2-wires measurements). Maximum operation current: 0.20A for all temperatures.

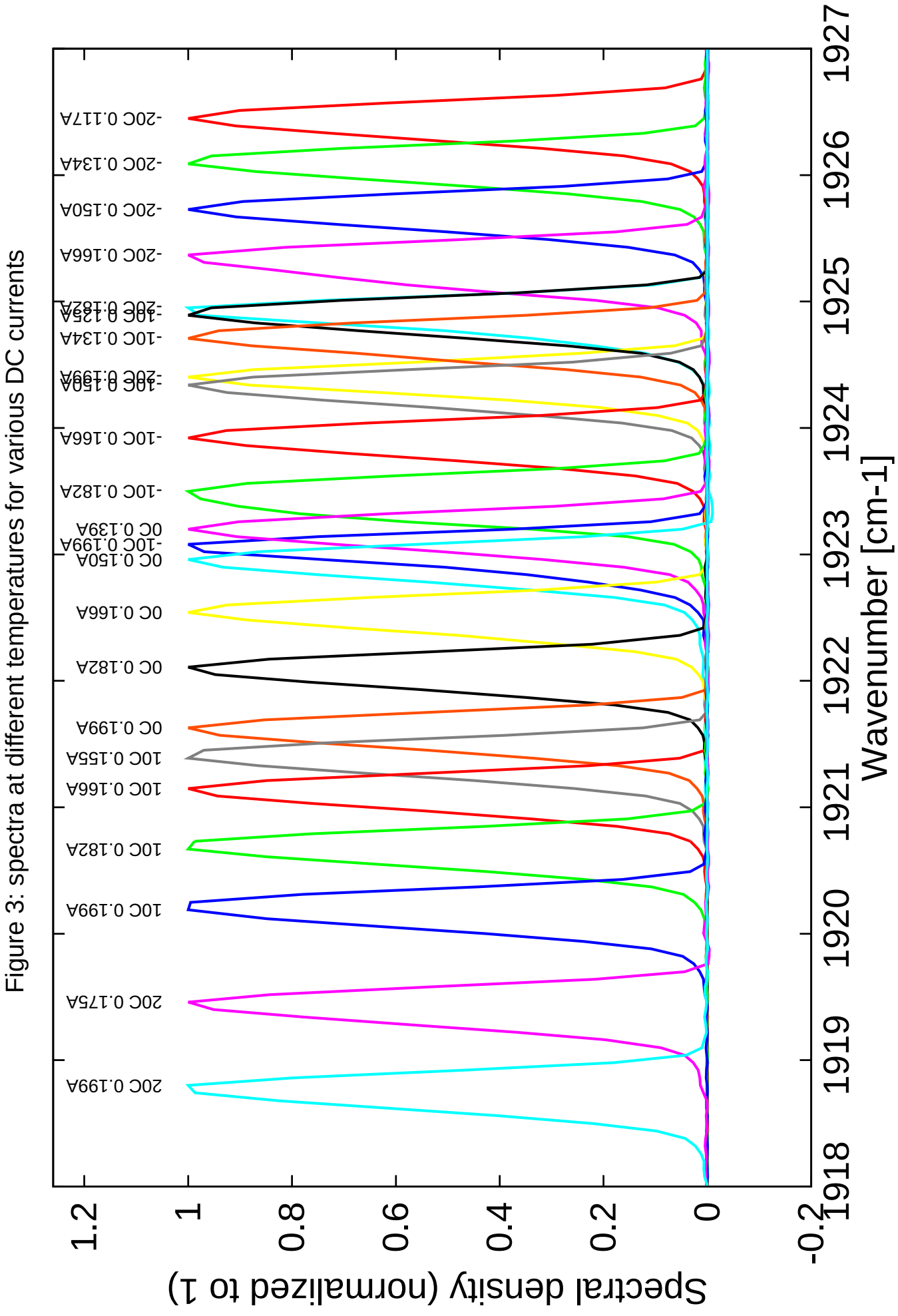

Figure 3: spectra at different temperatures for various DC currents