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Datasheet for #sbcw22695 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.

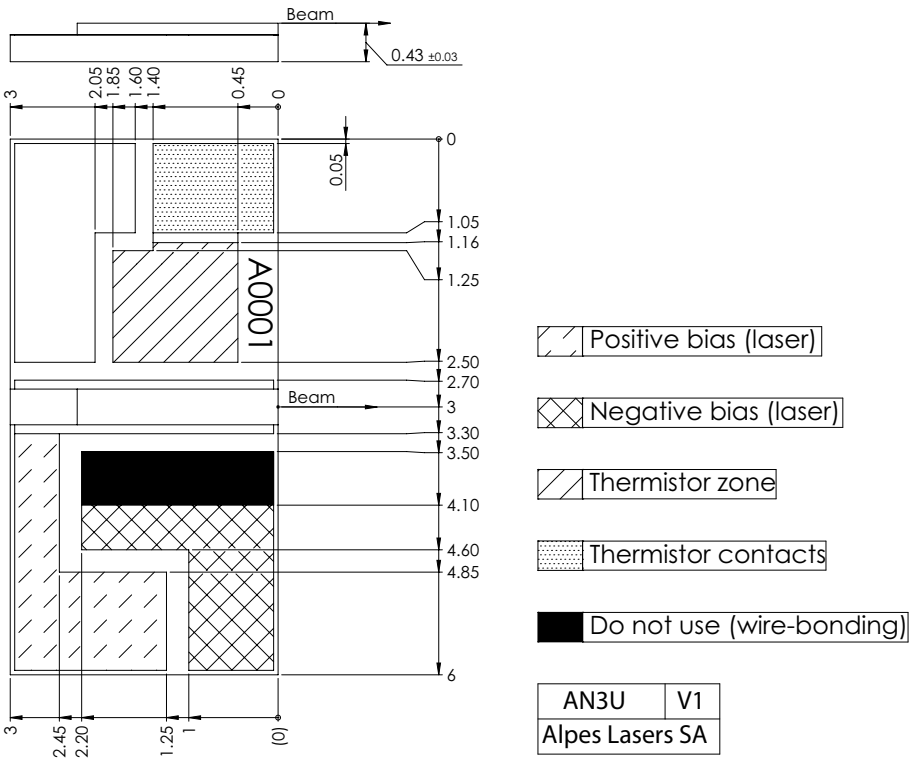

Figure 1: Mechanical and electrical interface for #sbcw22695 DN (please note that AlN submount numbering is A0X63)

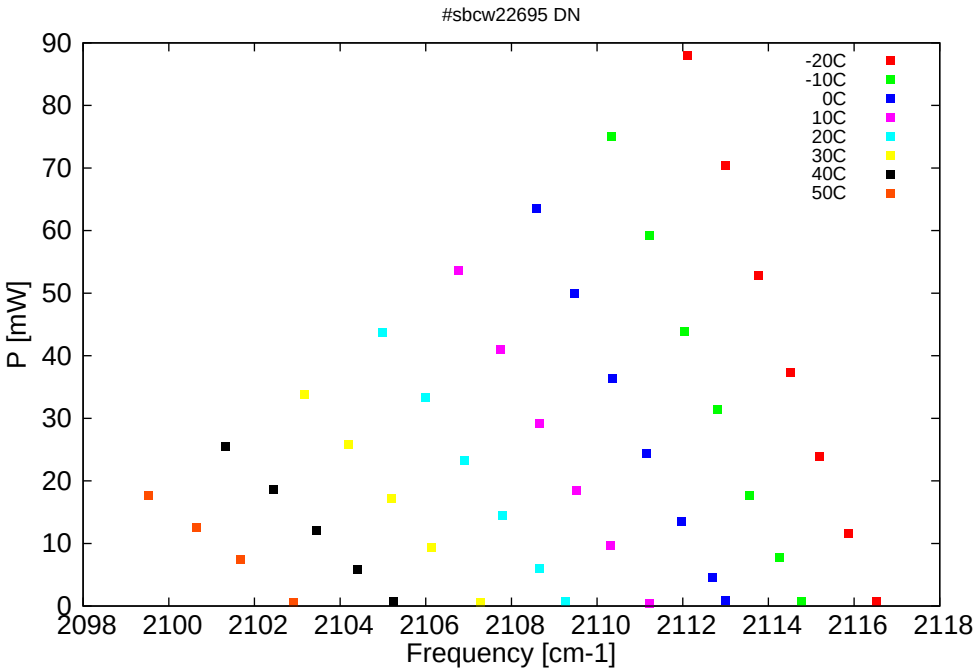

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

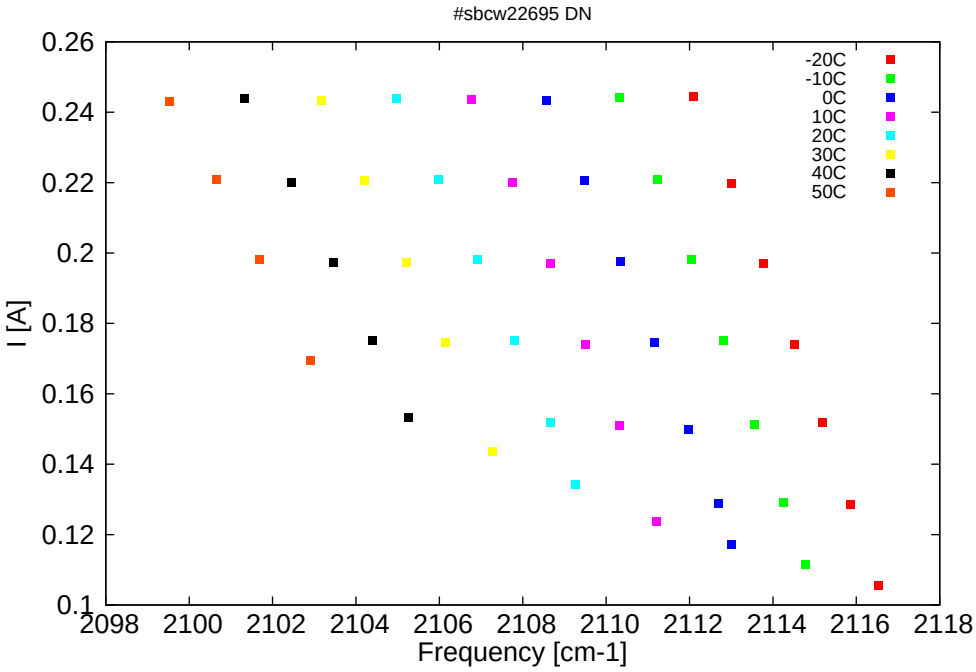

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
4724.7	2116.5	0.7	-20	11.03	0.105
4726.2	2115.9	11.6	-20	11.17	0.129
4727.7	2115.2	23.9	-20	11.34	0.152
4729.2	2114.5	37.4	-20	11.52	0.174
4730.9	2113.8	52.8	-20	11.72	0.197
4732.6	2113	70.3	-20	11.95	0.22
4734.6	2112.1	88.1	-20	12.21	0.244
4728.6	2114.8	0.7	-10	11	0.112
4729.8	2114.2	7.7	-10	11.11	0.129
4731.3	2113.6	17.7	-10	11.27	0.151
4733	2112.8	31.5	-10	11.47	0.175
4734.8	2112	43.8	-10	11.68	0.198
4736.6	2111.2	59.2	-10	11.91	0.221
4738.6	2110.3	75.1	-10	12.16	0.244
4732.6	2113	0.9	0	10.98	0.117
4733.3	2112.7	4.6	0	11.05	0.129
4734.9	2112	13.5	0	11.21	0.15
4736.7	2111.2	24.4	0	11.42	0.174
4738.5	2110.4	36.3	0	11.63	0.198
4740.5	2109.5	50	0	11.86	0.221
4742.5	2108.6	63.5	0	12.11	0.243
4736.6	2111.2	0.4	10	10.98	0.124
4738.6	2110.3	9.6	10	11.18	0.151
4740.4	2109.5	18.4	10	11.37	0.174
4742.3	2108.7	29.2	10	11.58	0.197
4744.4	2107.8	41	10	11.81	0.22
4746.6	2106.8	53.7	10	12.07	0.243
4741	2109.3	0.8	20	11.01	0.134
4742.3	2108.7	6.1	20	11.14	0.152
4744.3	2107.8	14.4	20	11.33	0.175
4746.3	2106.9	23.3	20	11.54	0.198
4748.4	2106	33.4	20	11.77	0.221
4750.6	2105	43.6	20	12.03	0.244
4745.4	2107.3	0.5	30	11.05	0.143
4748	2106.1	9.3	30	11.29	0.174
4750.1	2105.2	17.3	30	11.5	0.197
4752.4	2104.2	25.8	30	11.73	0.221
4754.7	2103.2	33.7	30	11.98	0.243
4750	2105.3	0.7	40	11.1	0.153
4752	2104.4	5.8	40	11.27	0.175
4754.1	2103.5	12	40	11.46	0.197
4756.4	2102.5	18.7	40	11.69	0.22
4758.9	2101.3	25.4	40	11.94	0.244
4755.3	2102.9	0.6	50	11.21	0.17
4758.1	2101.7	7.4	50	11.44	0.198
4760.4	2100.6	12.5	50	11.66	0.221
4763	2099.5	17.6	50	11.9	0.243

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λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]

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

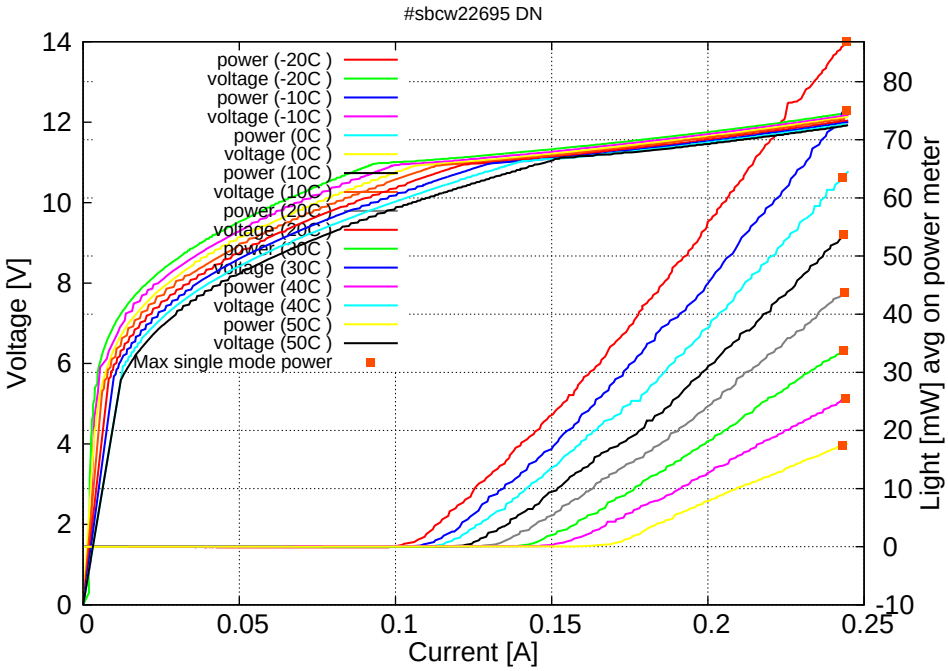

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.10A / Vth=11.0V (2-wires measurements). Maximum operation current: 0.245A for all temperatures.

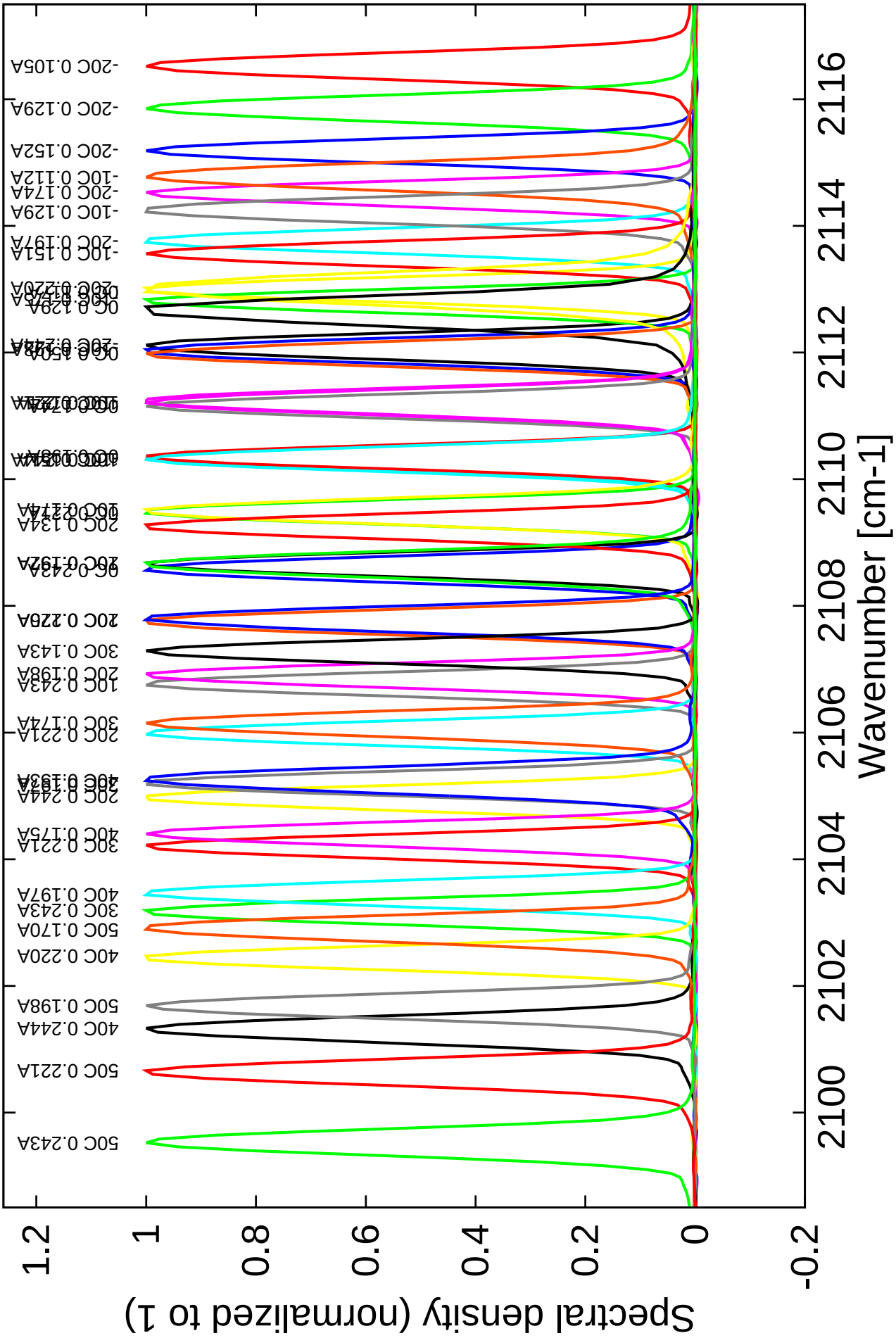

Figure 3: spectra at different temperatures for various DC currents

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