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Datasheet for #sbcw27336 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.

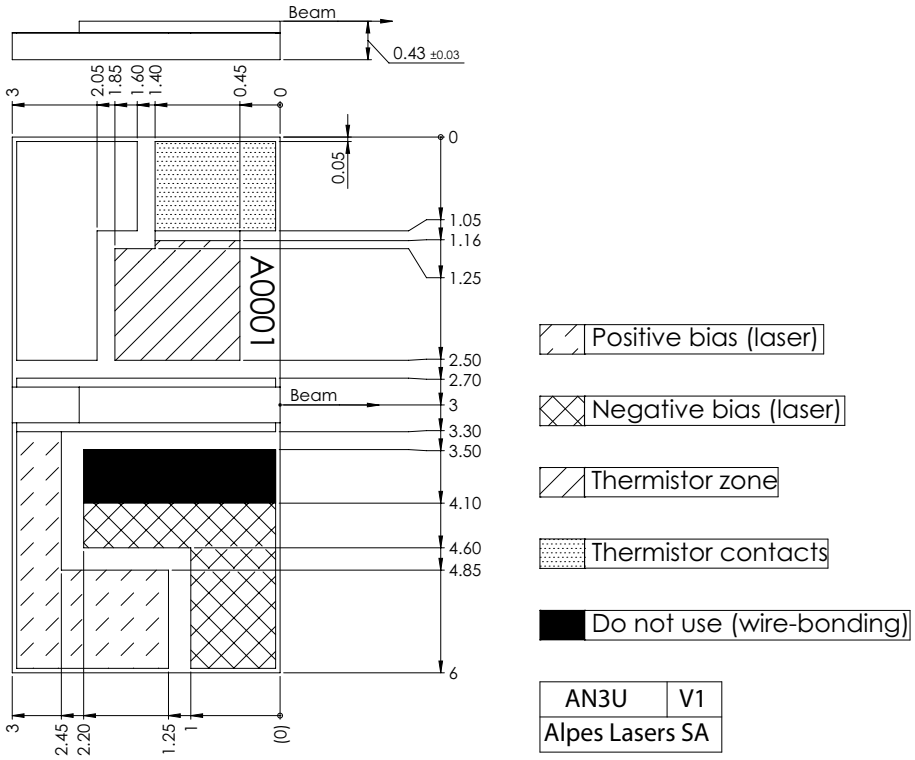

Figure 1: Mechanical and electrical interface for #sbcw27336 DN (please note that AlN submount numbering is A0YL9)

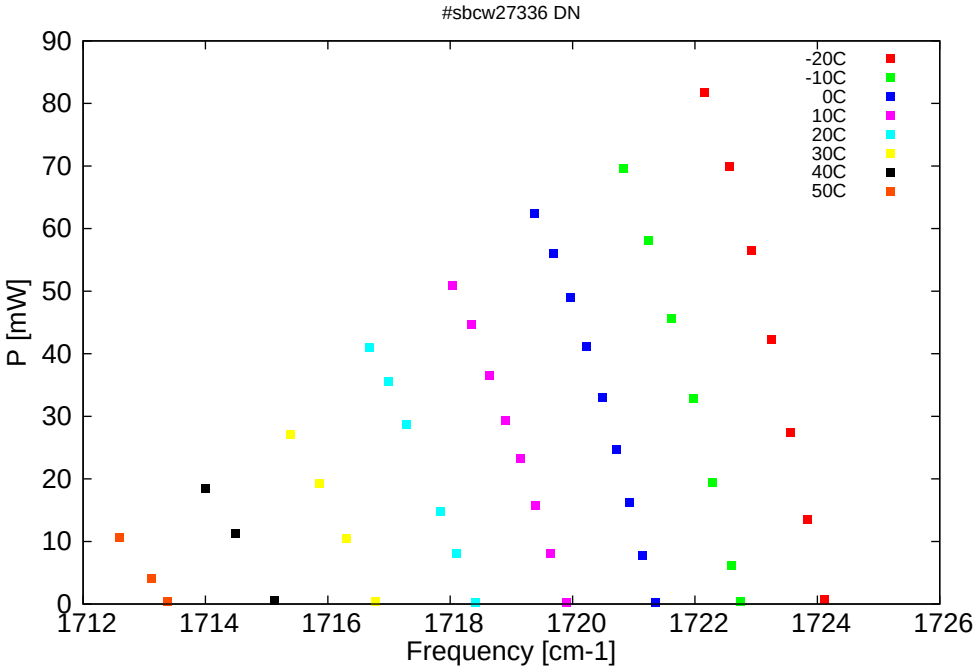

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

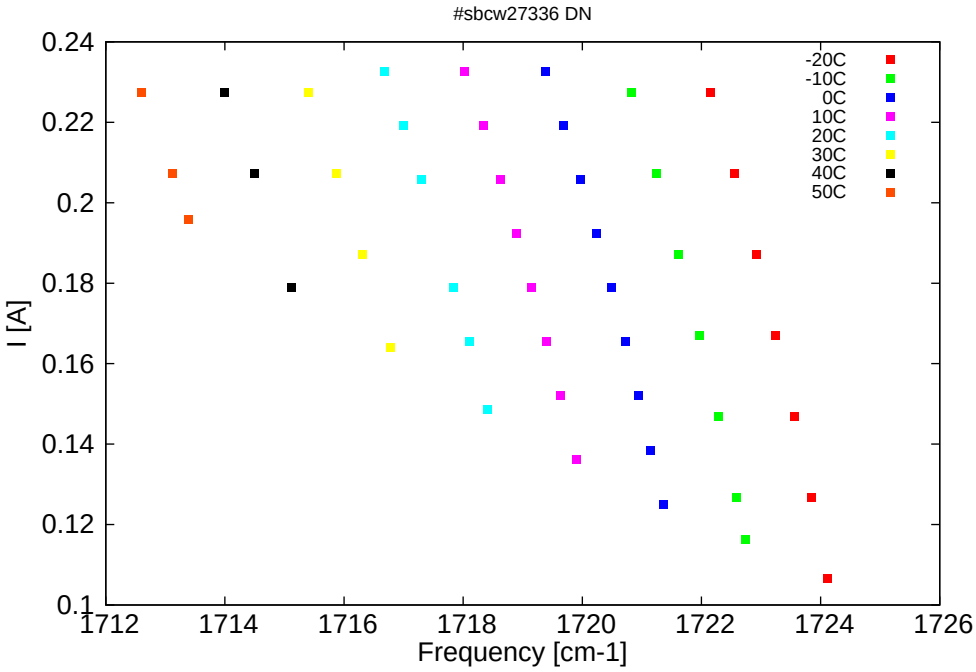

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
5800.1	1724.1	0.7	-20	7.33	0.107
5801	1723.8	13.5	-20	7.57	0.127
5801.9	1723.6	27.5	-20	7.8	0.147
5803	1723.3	42.3	-20	8.04	0.167
5804.1	1722.9	56.4	-20	8.27	0.187
5805.3	1722.6	69.9	-20	8.52	0.207
5806.7	1722.2	81.8	-20	8.8	0.227
5804.7	1722.7	0.5	-10	7.41	0.116
5805.2	1722.6	6.2	-10	7.53	0.127
5806.2	1722.3	19.4	-10	7.76	0.147
5807.3	1722	32.8	-10	8	0.167
5808.5	1721.6	45.6	-10	8.23	0.187
5809.8	1721.2	58.2	-10	8.48	0.207
5811.2	1720.8	69.7	-10	8.75	0.227
5809.4	1721.4	0.3	0	7.54	0.125
5810.1	1721.1	7.8	0	7.7	0.139
5810.8	1720.9	16.2	0	7.86	0.152
5811.5	1720.7	24.7	0	8.03	0.165
5812.3	1720.5	33.1	0	8.19	0.179
5813.2	1720.2	41.2	0	8.36	0.192
5814.1	1720	48.9	0	8.54	0.206
5815	1719.7	56	0	8.72	0.219
5816	1719.4	62.5	0	8.92	0.233
5814.3	1719.9	0.2	10	7.63	0.136
5815.2	1719.6	8.1	10	7.82	0.152
5816	1719.4	15.7	10	7.99	0.165
5816.8	1719.2	23.3	10	8.15	0.179
5817.7	1718.9	29.4	10	8.32	0.192
5818.6	1718.6	36.6	10	8.5	0.206
5819.6	1718.3	44.6	10	8.68	0.219
5820.6	1718	50.9	10	8.88	0.233
5819.3	1718.4	0.3	20	7.76	0.149
5820.4	1718.1	8.1	20	7.97	0.165
5821.3	1717.8	14.8	20	8.13	0.179
5823.1	1717.3	28.8	20	8.48	0.206
5824.1	1717	35.5	20	8.66	0.219
5825.2	1716.7	41.1	20	8.85	0.233
5824.9	1716.8	0.4	30	7.81	0.164
5826.4	1716.3	10.5	30	8.09	0.187
5828	1715.9	19.3	30	8.34	0.207
5829.6	1715.4	27.1	30	8.61	0.227
5830.5	1715.1	0.5	40	7.95	0.179
5832.6	1714.5	11.3	40	8.3	0.207
5834.3	1714	18.4	40	8.56	0.227
5836.4	1713.4	0.5	50	8.12	0.196
5837.3	1713.1	4.1	50	8.26	0.207
5839.1	1712.6	10.6	50	8.52	0.227

continued on next page

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.

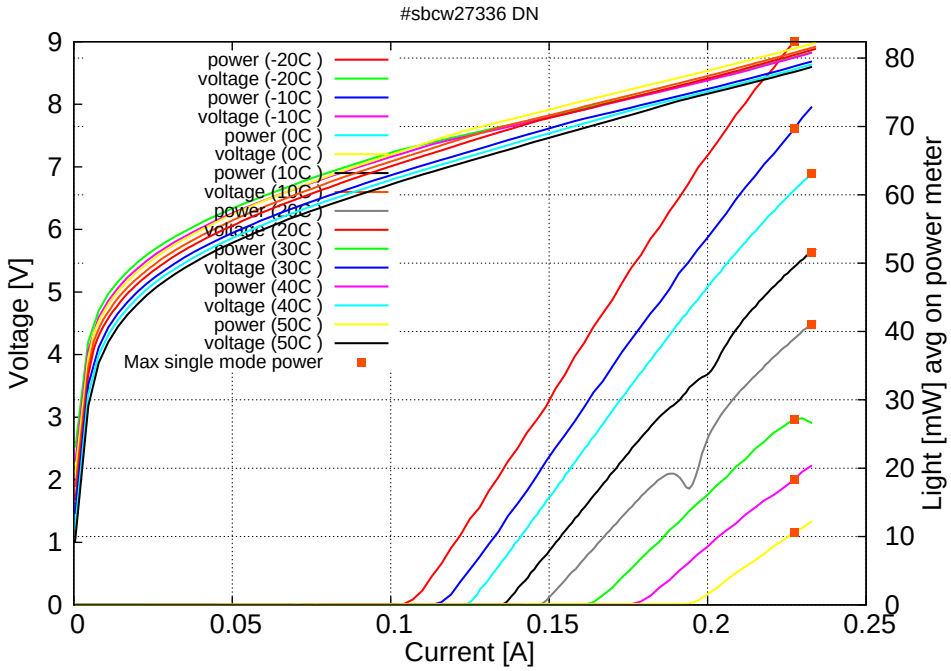

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.11A / Vth=7.3V (2-wires measurements). Maximum operation current: 0.235A for all temperatures.

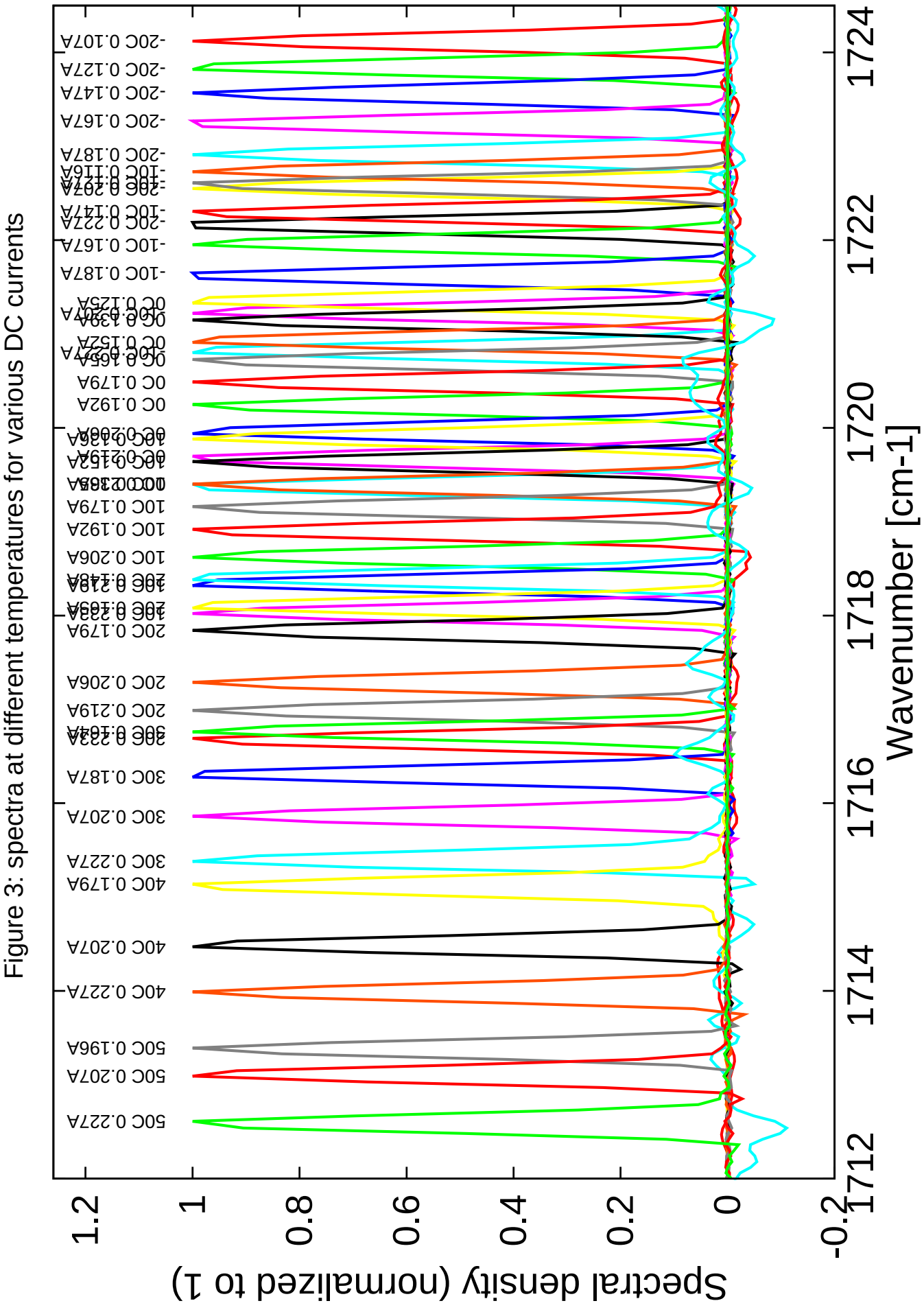

Figure 3: spectra at different temperatures for various DC currents

#sbcw27336 DN