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Datasheet for #sbcw26562 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.

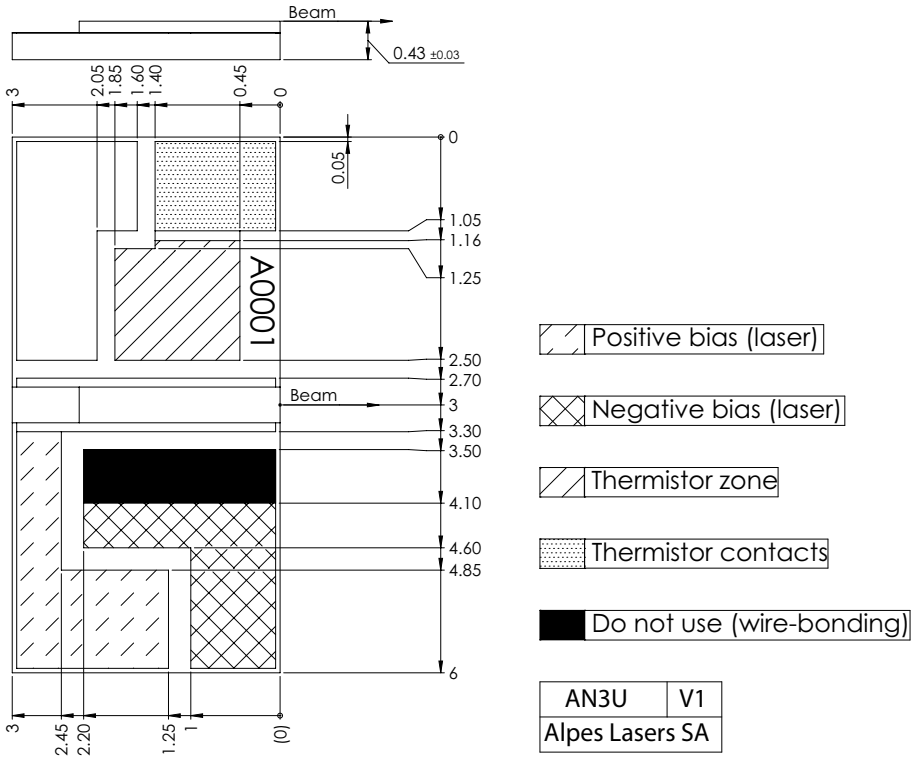

Figure 1: Mechanical and electrical interface for #sbcw26562 DN (please note that AlN submount numbering is A0W4E)

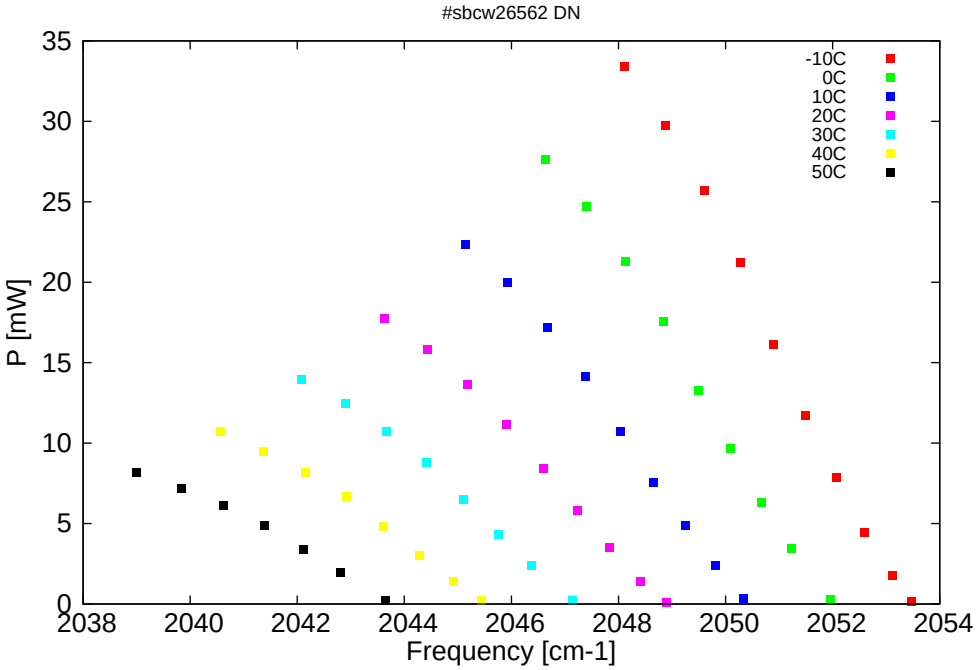

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

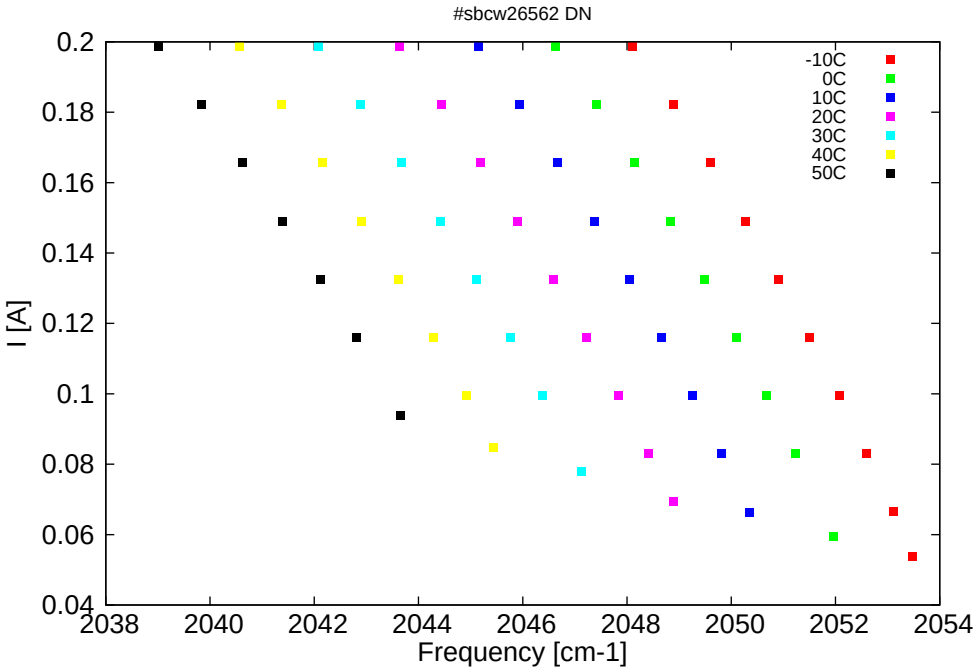

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
4869.8	2053.5	0.2	-10	10.7	0.054
4870.6	2053.1	1.8	-10	11	0.067
4871.9	2052.6	4.5	-10	11.35	0.083
4873.1	2052.1	7.9	-10	11.67	0.1
4874.5	2051.5	11.7	-10	11.98	0.116
4875.9	2050.9	16.1	-10	12.27	0.133
4877.4	2050.3	21.3	-10	12.57	0.149
4879	2049.6	25.7	-10	12.87	0.166
4880.7	2048.9	29.7	-10	13.2	0.182
4882.5	2048.1	33.4	-10	13.56	0.199
4873.4	2052	0.3	0	10.74	0.06
4875.1	2051.2	3.5	0	11.24	0.083
4876.4	2050.7	6.3	0	11.56	0.1
4877.8	2050.1	9.6	0	11.87	0.116
4879.3	2049.5	13.3	0	12.16	0.133
4880.8	2048.8	17.5	0	12.45	0.149
4882.5	2048.1	21.3	0	12.75	0.166
4884.2	2047.4	24.7	0	13.05	0.182
4886.1	2046.6	27.6	0	13.38	0.199
4877.2	2050.3	0.3	10	10.79	0.066
4878.5	2049.8	2.4	10	11.14	0.083
4879.8	2049.3	4.9	10	11.46	0.1
4881.2	2048.7	7.5	10	11.77	0.116
4882.7	2048	10.7	10	12.05	0.133
4884.3	2047.4	14.1	10	12.34	0.149
4886	2046.7	17.2	10	12.63	0.166
4887.8	2045.9	20	10	12.92	0.182
4889.6	2045.1	22.4	10	13.24	0.199
4880.7	2048.9	0.1	20	10.76	0.069
4881.8	2048.4	1.4	20	11.04	0.083
4883.2	2047.8	3.5	20	11.36	0.1
4884.7	2047.2	5.8	20	11.66	0.116
4886.2	2046.6	8.4	20	11.95	0.133
4887.8	2045.9	11.2	20	12.23	0.149
4889.5	2045.2	13.7	20	12.51	0.166
4891.3	2044.4	15.8	20	12.8	0.182
4893.2	2043.6	17.8	20	13.1	0.199
4884.9	2047.1	0.2	30	10.85	0.078
4886.7	2046.4	2.4	30	11.27	0.1
4888.2	2045.8	4.3	30	11.56	0.116
4889.7	2045.1	6.5	30	11.85	0.133
4891.4	2044.4	8.8	30	12.13	0.149
4893.2	2043.7	10.7	30	12.41	0.166
4895	2042.9	12.4	30	12.69	0.182
4897	2042.1	14	30	12.98	0.199
4888.9	2045.4	0.2	40	10.91	0.085
4890.2	2044.9	1.4	40	11.18	0.1
4891.7	2044.3	3	40	11.47	0.116
4893.3	2043.6	4.8	40	11.76	0.133

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λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
4895	2042.9	6.7	40	12.04	0.149
4896.8	2042.2	8.2	40	12.31	0.166
4898.7	2041.4	9.5	40	12.58	0.182
4900.6	2040.6	10.7	40	12.86	0.199
4893.2	2043.6	0.2	50	11	0.094
4895.2	2042.8	2	50	11.39	0.116
4896.9	2042.1	3.4	50	11.67	0.133
4898.6	2041.4	4.9	50	11.95	0.149
4900.4	2040.6	6.1	50	12.21	0.166
4902.3	2039.8	7.2	50	12.48	0.182
4904.4	2039	8.2	50	12.75	0.199

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

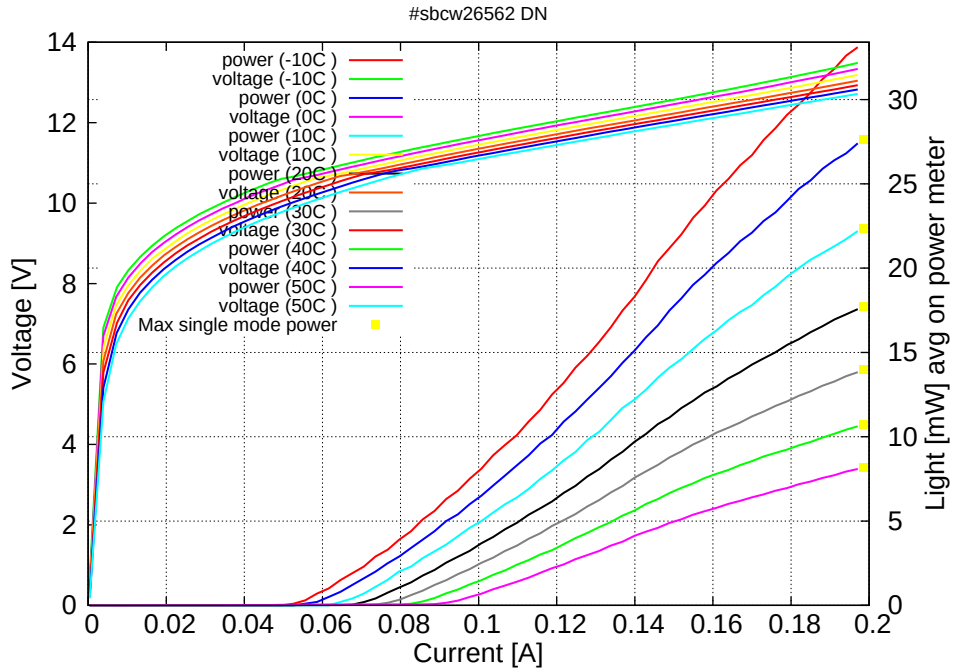

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: Ith=0.05A / Vth=10.6V (2-wires measurements). Maximum operation current: 0.20A for all temperatures.

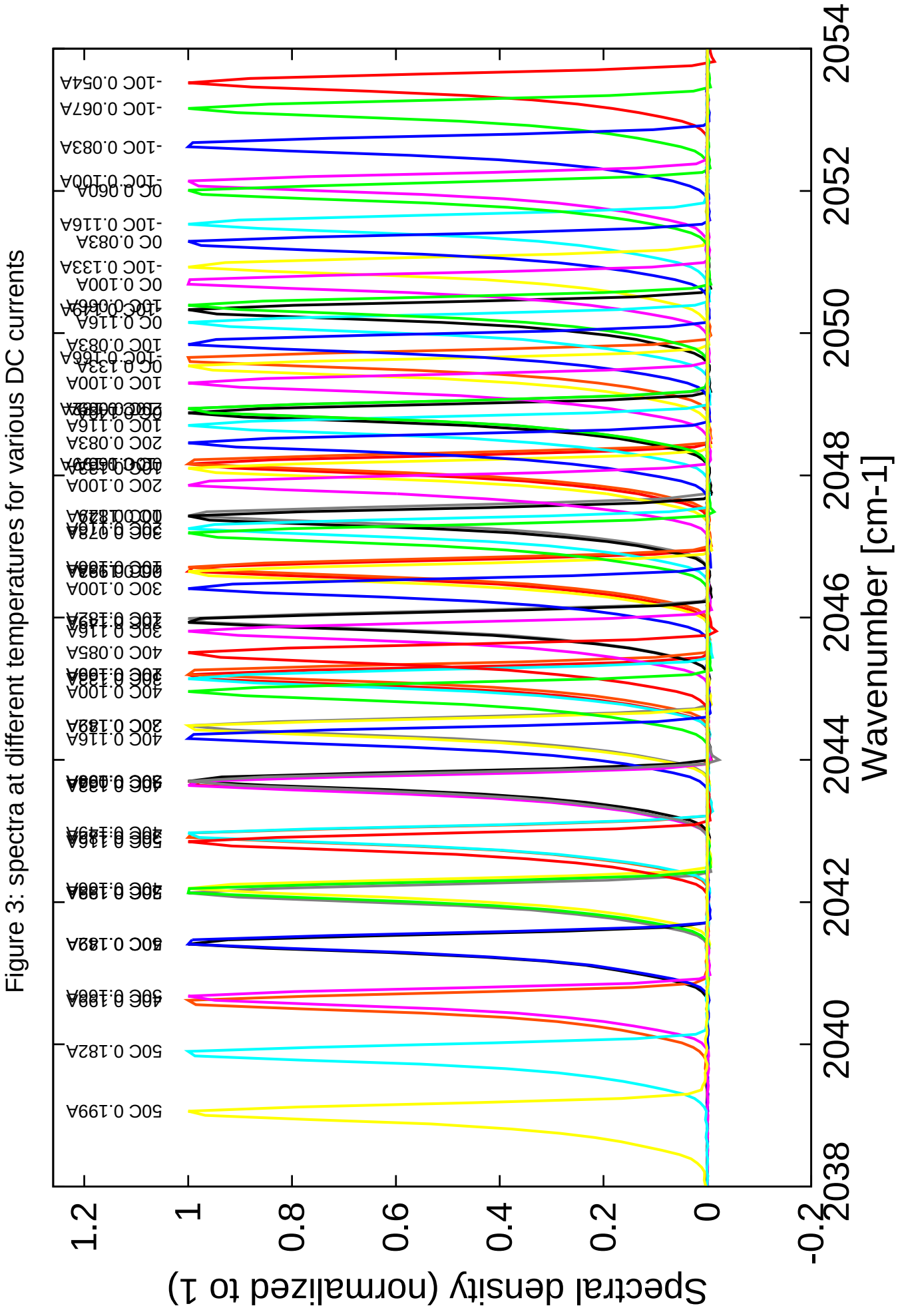

Figure 3: spectra at different temperatures for various DC currents