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Datasheet for #sbcw26584 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.

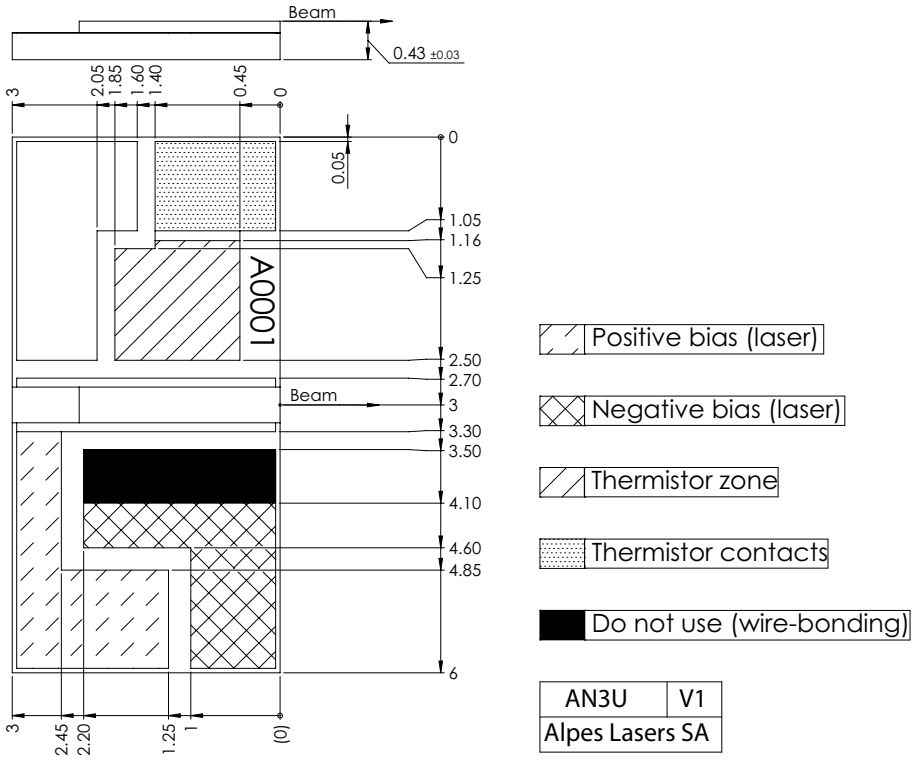

Figure 1: Mechanical and electrical interface for #sbcw26584 DN (please note that AlN submount numbering is A0XD9)

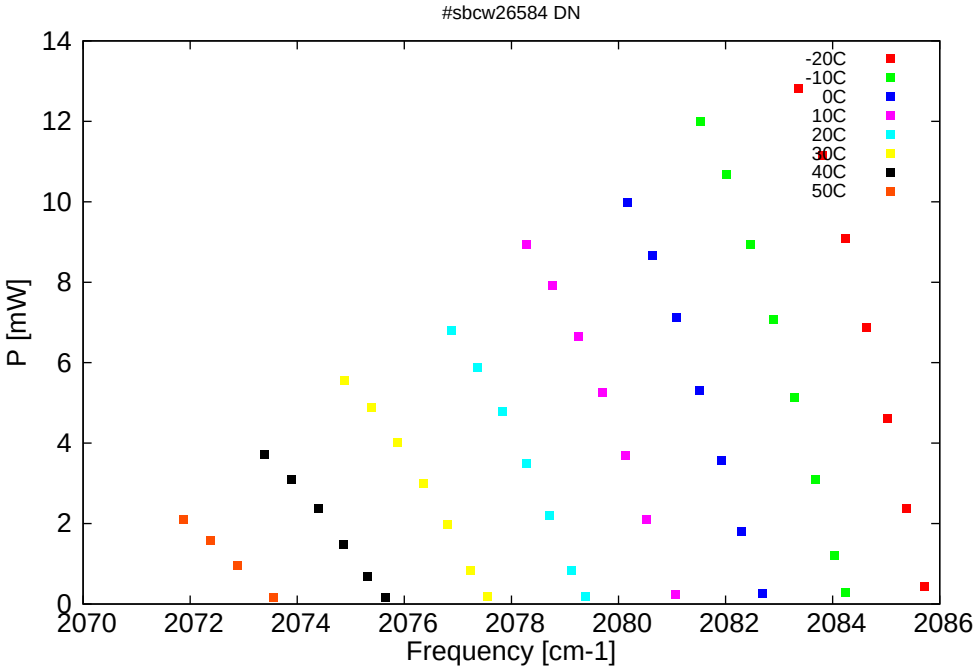

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

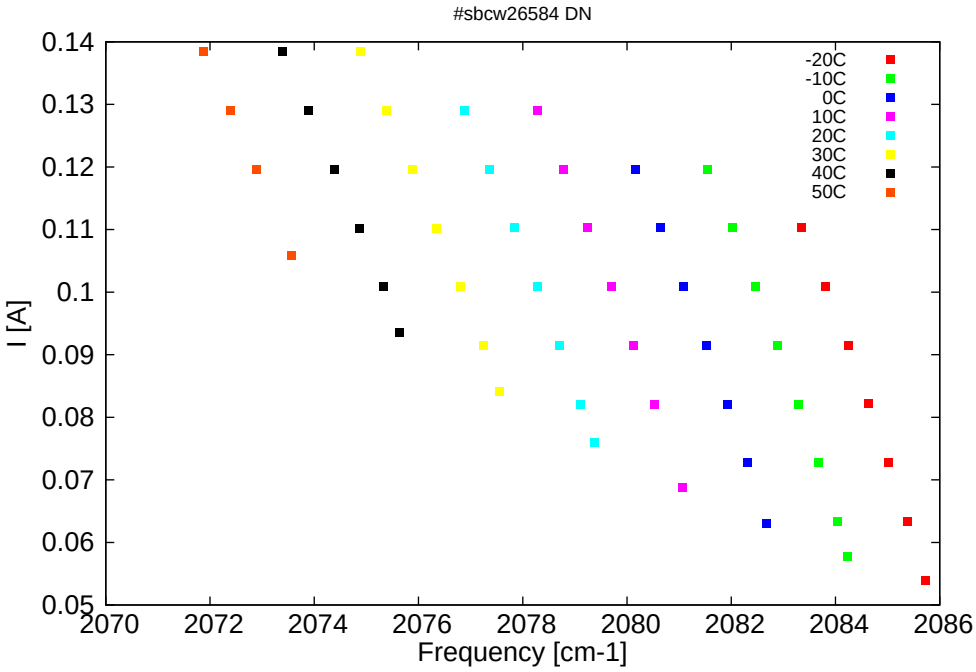

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
4794.5	2085.7	0.4	-20	12.36	0.054
4795.3	2085.4	2.4	-20	12.7	0.063
4796.1	2085	4.6	-20	13.04	0.073
4797	2084.6	6.9	-20	13.38	0.082
4797.9	2084.2	9.1	-20	13.73	0.092
4798.9	2083.8	11.1	-20	14.09	0.101
4799.9	2083.4	12.8	-20	14.48	0.11
4797.9	2084.2	0.3	-10	12.34	0.058
4798.4	2084	1.2	-10	12.53	0.063
4799.2	2083.7	3.1	-10	12.85	0.073
4800.1	2083.3	5.1	-10	13.17	0.082
4801	2082.9	7.1	-10	13.5	0.092
4802	2082.5	8.9	-10	13.83	0.101
4803	2082	10.7	-10	14.19	0.11
4804.1	2081.5	12	-10	14.56	0.12
4801.5	2082.7	0.3	0	12.37	0.063
4802.4	2082.3	1.8	0	12.68	0.073
4803.2	2081.9	3.6	0	12.98	0.082
4804.2	2081.5	5.3	0	13.29	0.092
4805.2	2081.1	7.1	0	13.6	0.101
4806.2	2080.6	8.7	0	13.92	0.11
4807.3	2080.2	10	0	14.27	0.12
4805.2	2081.1	0.2	10	12.43	0.069
4806.5	2080.5	2.1	10	12.82	0.082
4807.4	2080.1	3.7	10	13.11	0.092
4808.4	2079.7	5.3	10	13.4	0.101
4809.4	2079.2	6.6	10	13.71	0.11
4810.5	2078.8	7.9	10	14.01	0.12
4811.7	2078.3	8.9	10	14.34	0.129
4809.1	2079.4	0.2	20	12.52	0.076
4809.7	2079.1	0.8	20	12.69	0.082
4810.7	2078.7	2.2	20	12.95	0.092
4811.7	2078.3	3.5	20	13.23	0.101
4812.7	2077.8	4.8	20	13.51	0.11
4813.8	2077.4	5.9	20	13.8	0.12
4814.9	2076.9	6.8	20	14.09	0.129
4813.4	2077.6	0.2	30	12.64	0.084
4814.1	2077.2	0.8	30	12.82	0.092
4815.1	2076.8	2	30	13.08	0.101
4816.1	2076.4	3	30	13.34	0.11
4817.2	2075.9	4	30	13.61	0.12
4818.4	2075.4	4.9	30	13.88	0.129
4819.5	2074.9	5.6	30	14.16	0.138
4817.8	2075.6	0.2	40	12.78	0.094
4818.5	2075.3	0.7	40	12.96	0.101
4819.6	2074.9	1.5	40	13.2	0.11
4820.7	2074.4	2.4	40	13.44	0.12
4821.8	2073.9	3.1	40	13.7	0.129
4823	2073.4	3.7	40	13.96	0.138

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λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
4822.6	2073.6	0.2	50	13	0.106
4824.2	2072.9	1	50	13.31	0.12
4825.4	2072.4	1.6	50	13.55	0.129
4826.5	2071.9	2.1	50	13.79	0.138

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

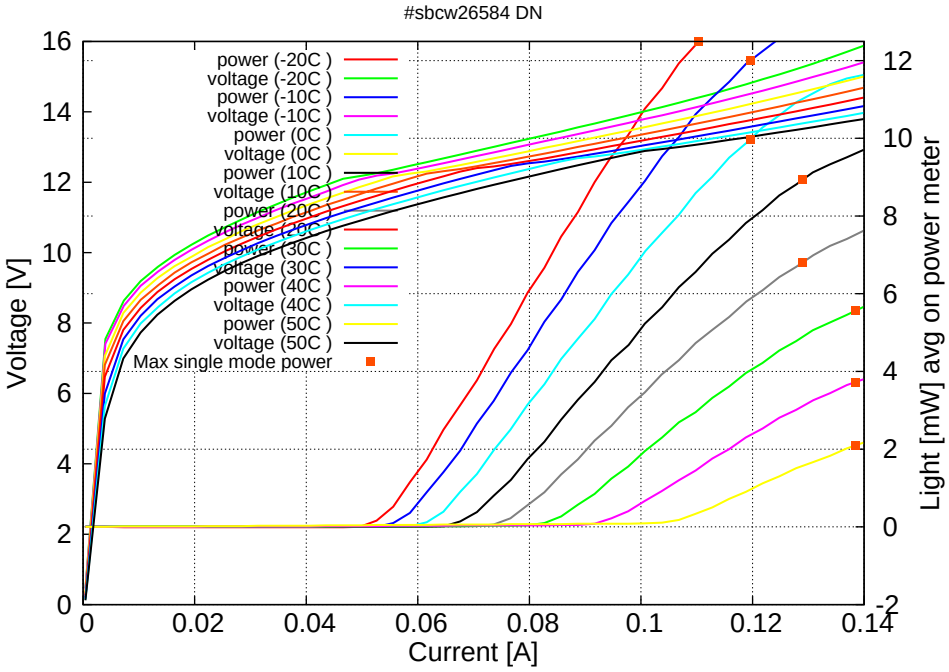

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.05A / Vth=12.3V (2-wires measurements). Maximum operation current: 0.11A at -20C, 0.12A between -10C and 0C, 0.13A between 10C and 20C, 0.14A between 30C and 50C.

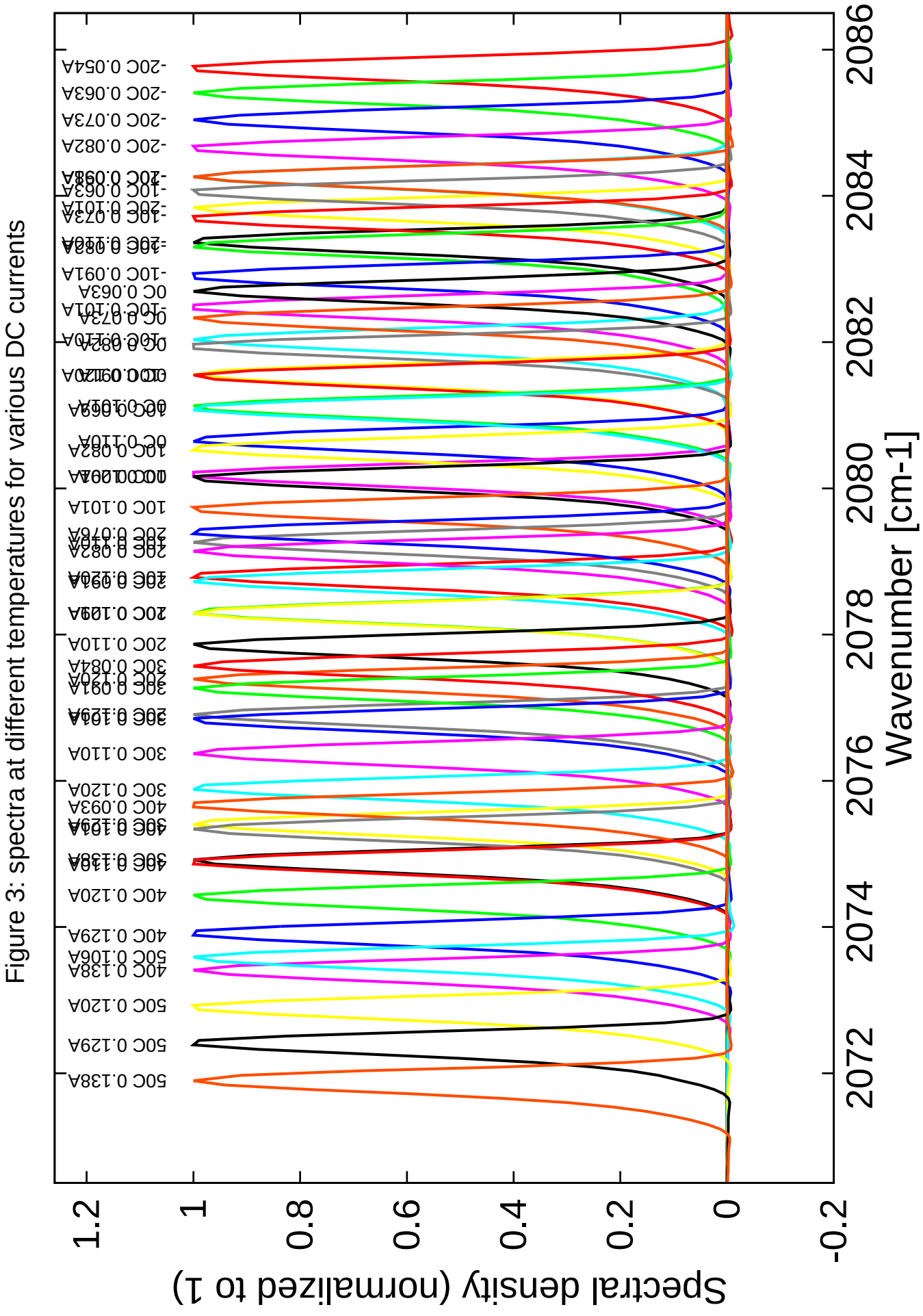

Figure 3: spectra at different temperatures for various DC currents