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Datasheet for #sbcw27362 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.

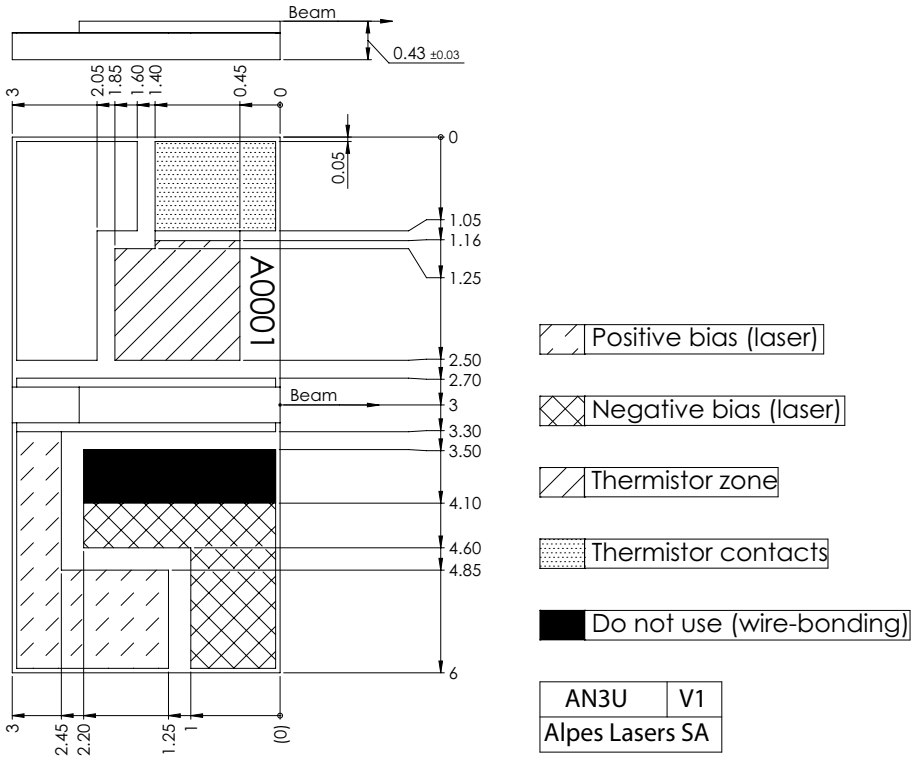

Figure 1: Mechanical and electrical interface for #sbcw27362 DN (please note that AlN submount numbering is A0U44)

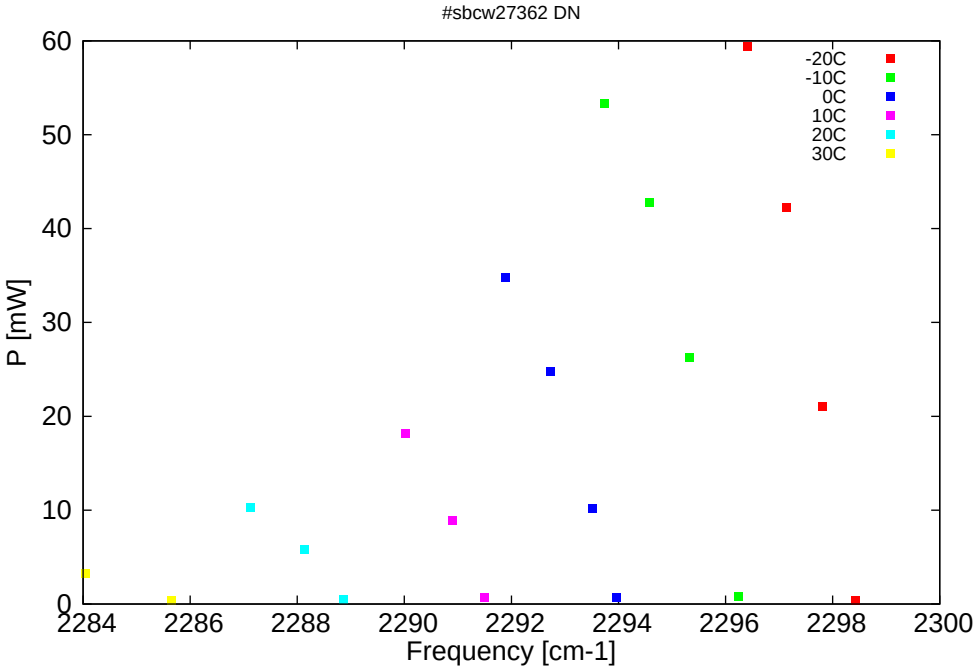

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

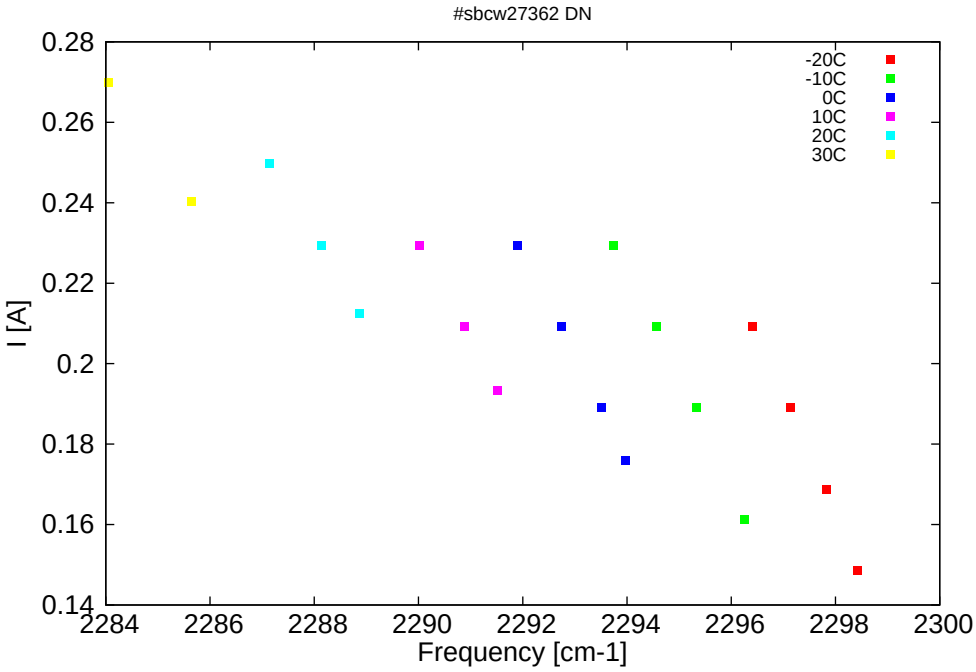

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
4350.8	2298.4	0.4	-20	12.17	0.149
4352	2297.8	21.1	-20	12.36	0.169
4353.2	2297.1	42.2	-20	12.55	0.189
4354.6	2296.4	59.4	-20	12.73	0.209
4354.9	2296.2	0.8	-10	12.19	0.161
4356.7	2295.3	26.3	-10	12.43	0.189
4358.1	2294.6	42.7	-10	12.61	0.209
4359.7	2293.7	53.3	-10	12.79	0.23
4359.3	2294	0.7	0	12.22	0.176
4360.1	2293.5	10.2	0	12.33	0.189
4361.6	2292.7	24.7	0	12.51	0.209
4363.2	2291.9	34.8	0	12.69	0.23
4363.9	2291.5	0.7	10	12.28	0.193
4365.1	2290.9	8.9	10	12.41	0.209
4366.8	2290	18.1	10	12.59	0.23
4369	2288.9	0.5	20	12.38	0.212
4370.4	2288.1	5.8	20	12.51	0.23
4372.3	2287.1	10.3	20	12.69	0.25
4375.1	2285.6	0.4	30	12.56	0.24
4378.2	2284.1	3.2	30	12.83	0.27

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

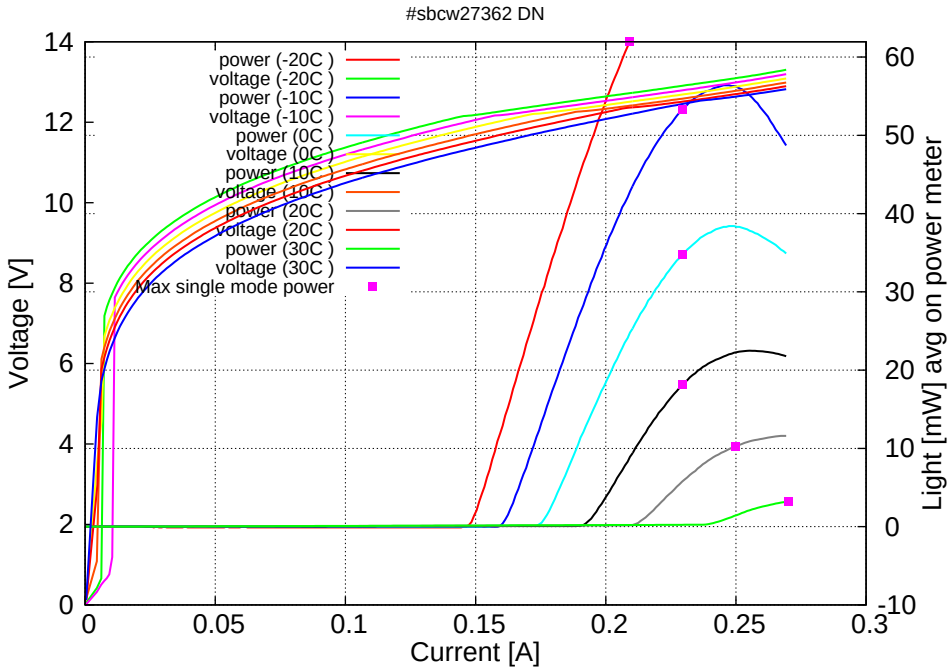

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.15A / Vth=12.1V (2-wires measurements). Maximum operation current: 0.21A at -20C, 0.23A between -10C and 10C, 0.25A at 20C, 0.27A at 30C.

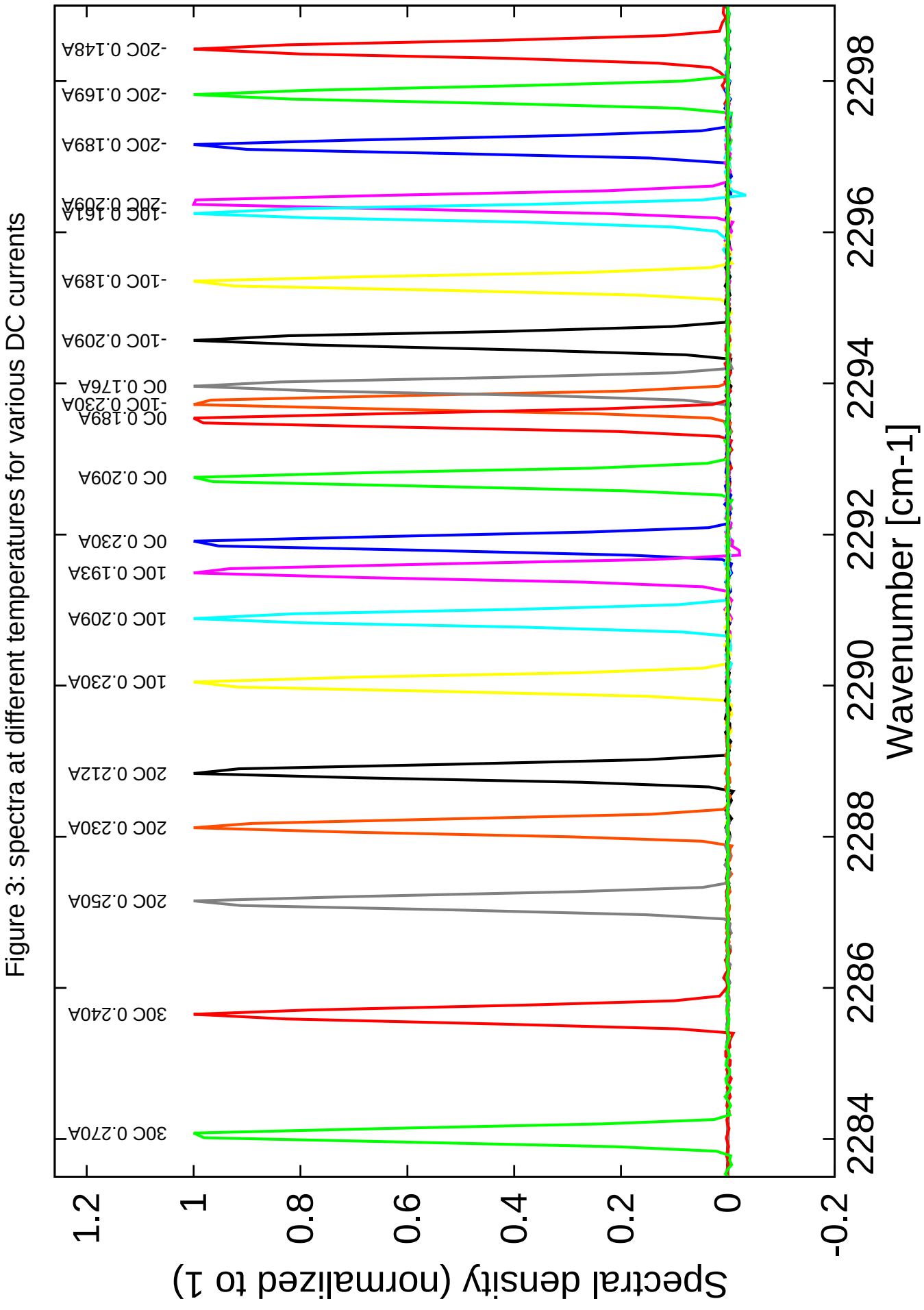

Figure 3: spectra at different temperatures for various DC currents