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Datasheet for #sbcw20361 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.

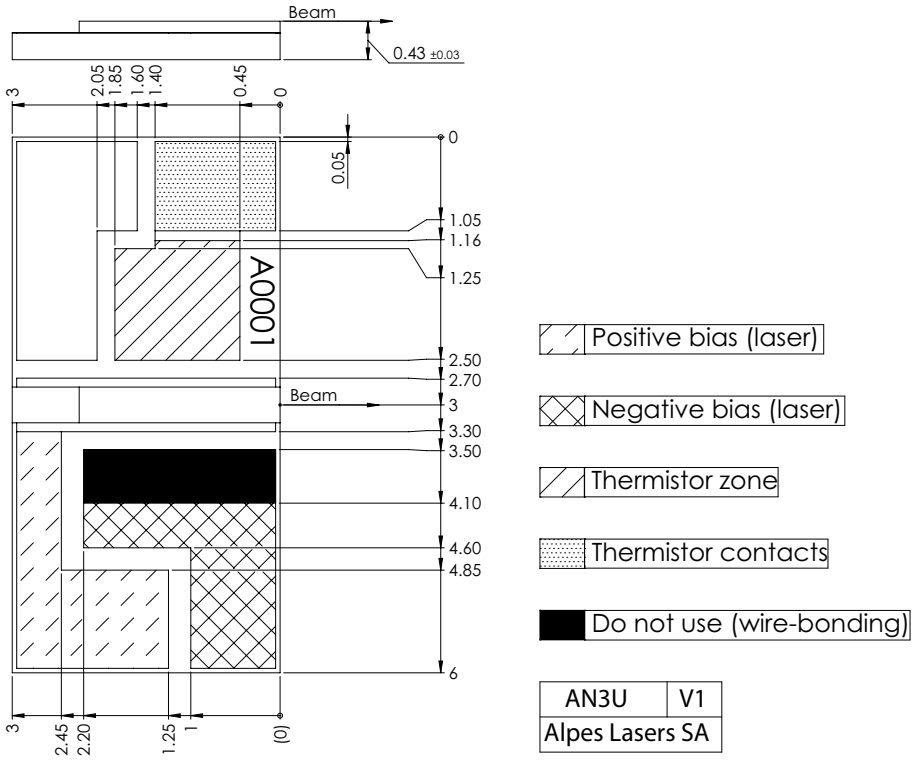

Figure 1: Mechanical and electrical interface for #sbcw20361 DN (please note that AlN submount numbering is A0RU8)

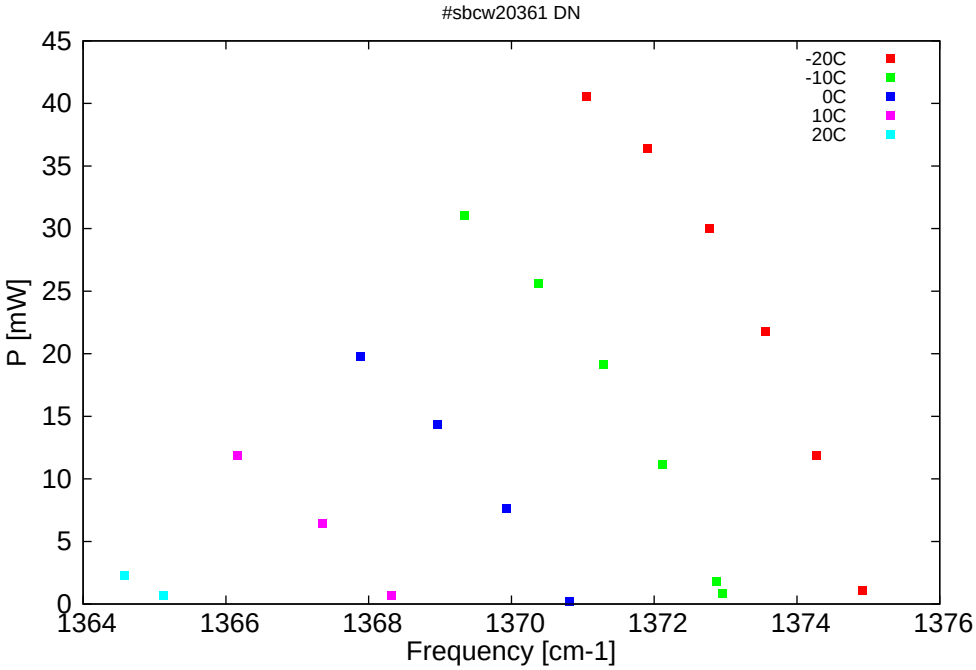

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

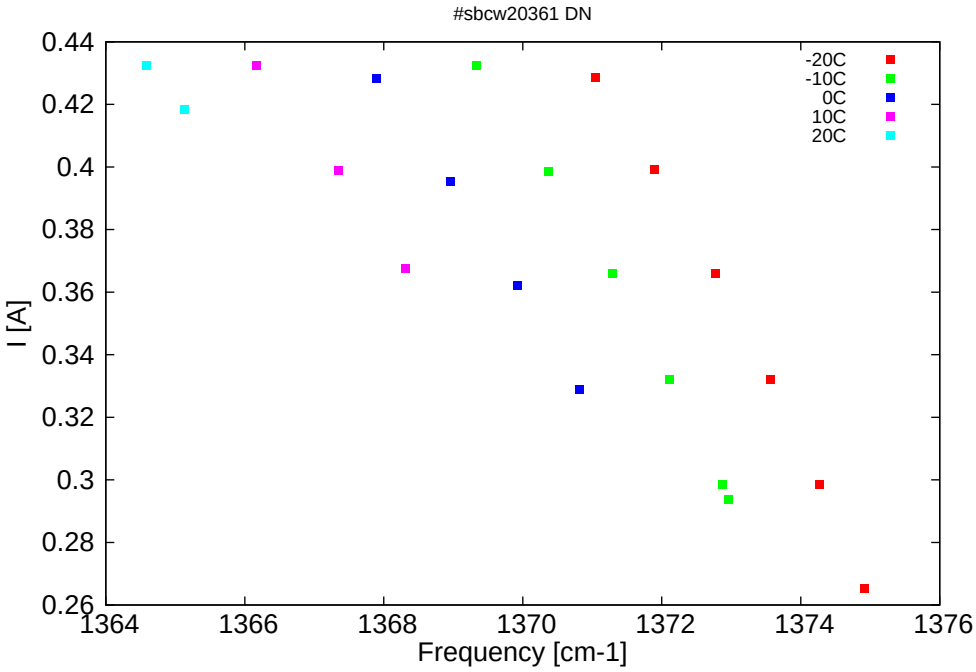

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
7273.2	1374.9	1.1	-20	10.1	0.265
7276.6	1374.3	11.9	-20	10.36	0.299
7280.3	1373.6	21.8	-20	10.63	0.332
7284.5	1372.8	30	-20	10.92	0.366
7289.1	1371.9	36.4	-20	11.23	0.399
7293.7	1371	40.5	-20	11.53	0.429
7283.6	1373	0.8	-10	10.26	0.294
7284	1372.9	1.8	-10	10.3	0.299
7288	1372.1	11.2	-10	10.58	0.332
7292.4	1371.3	19.1	-10	10.87	0.366
7297.3	1370.4	25.6	-10	11.19	0.399
7302.8	1369.3	31.1	-10	11.54	0.432
7294.9	1370.8	0.2	0	10.5	0.329
7299.7	1369.9	7.7	0	10.8	0.362
7304.8	1369	14.4	0	11.12	0.395
7310.5	1367.9	19.7	0	11.48	0.428
7308.2	1368.3	0.7	10	10.79	0.368
7313.4	1367.3	6.4	10	11.11	0.399
7319.8	1366.2	11.9	10	11.49	0.432
7325.3	1365.1	0.7	20	11.29	0.418
7328.2	1364.6	2.3	20	11.45	0.432

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

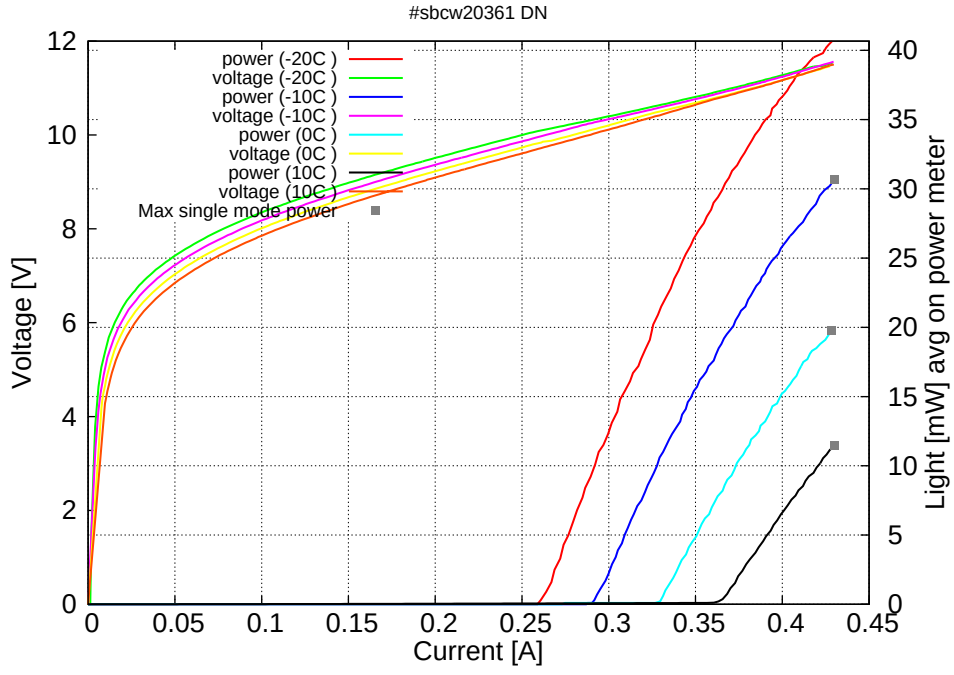

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.26A / Vth=10.0V (2-wires measurements). Maximum operation

current: 0.43A for all temperatures.

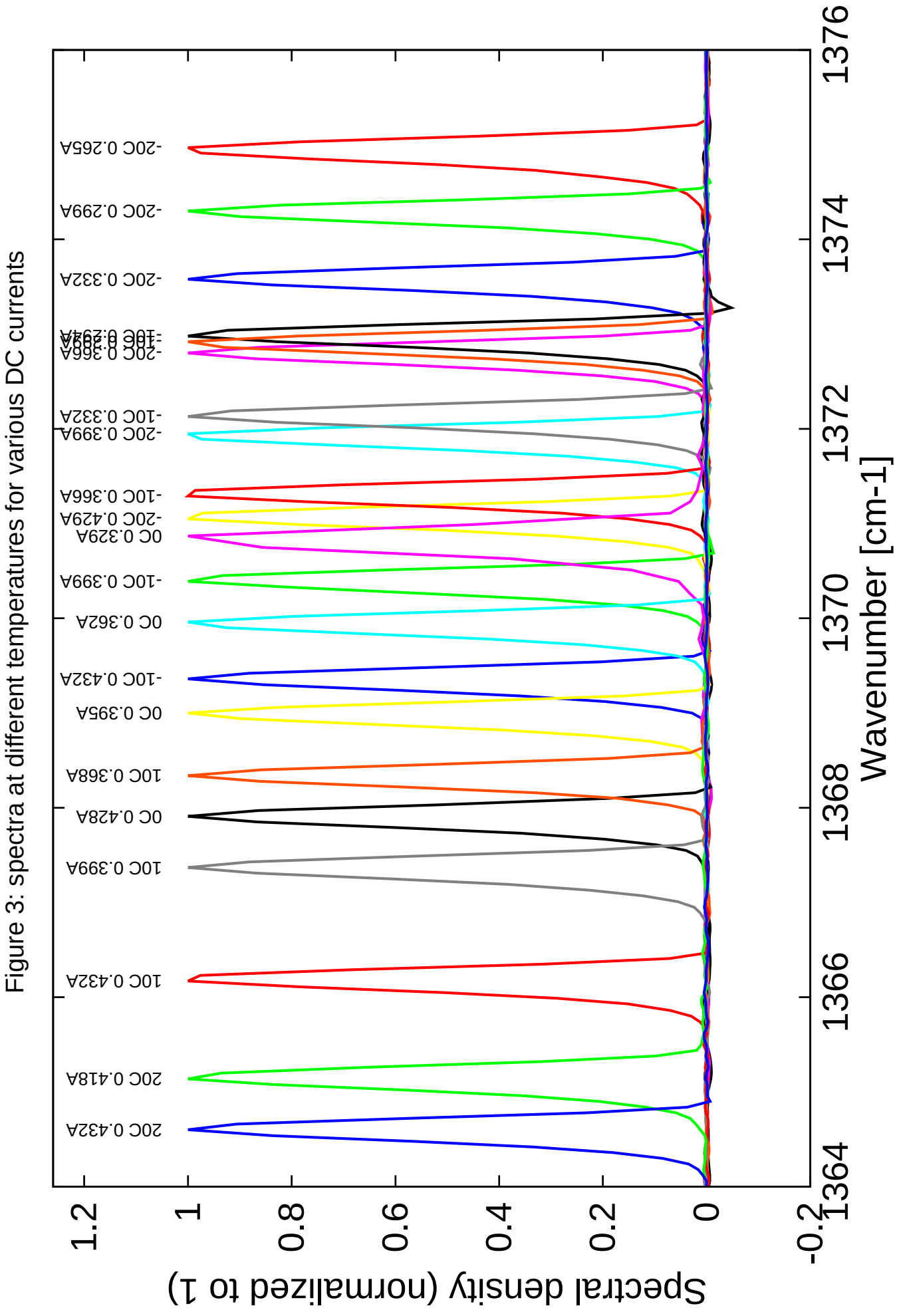

Figure 3: spectra at different temperatures for various DC currents