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Datasheet for #sbcw20357 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.

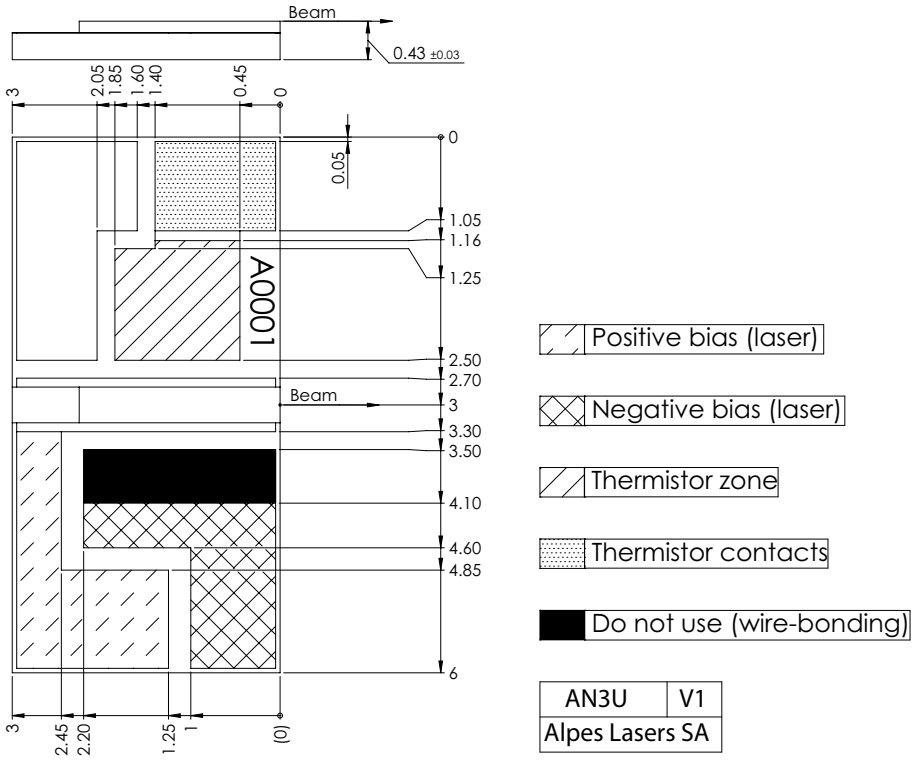

Figure 1: Mechanical and electrical interface for #sbcw20357 DN (please note that AlN submount numbering is A0RUV)

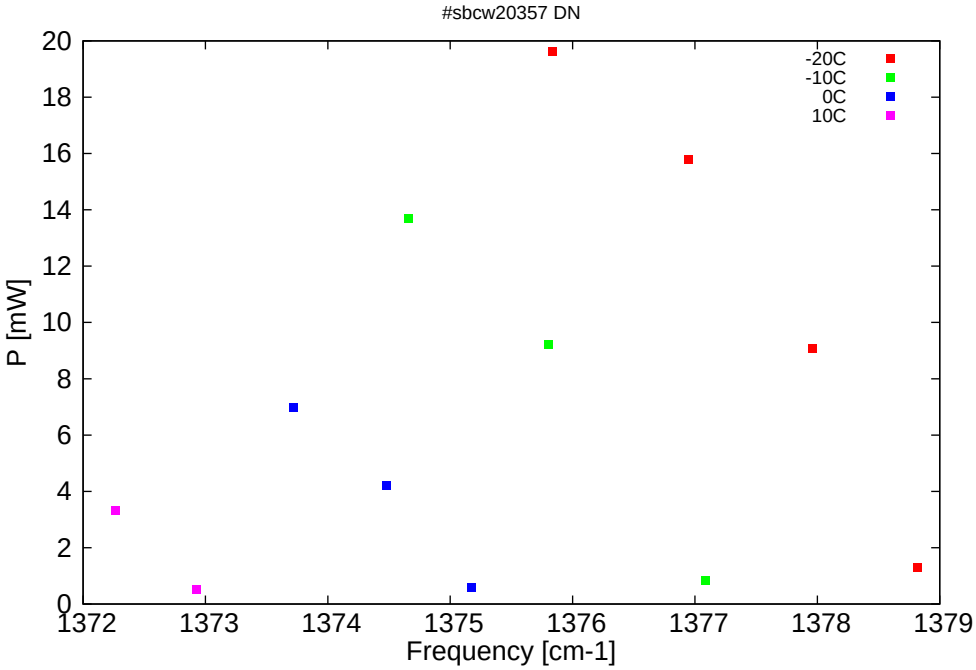

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

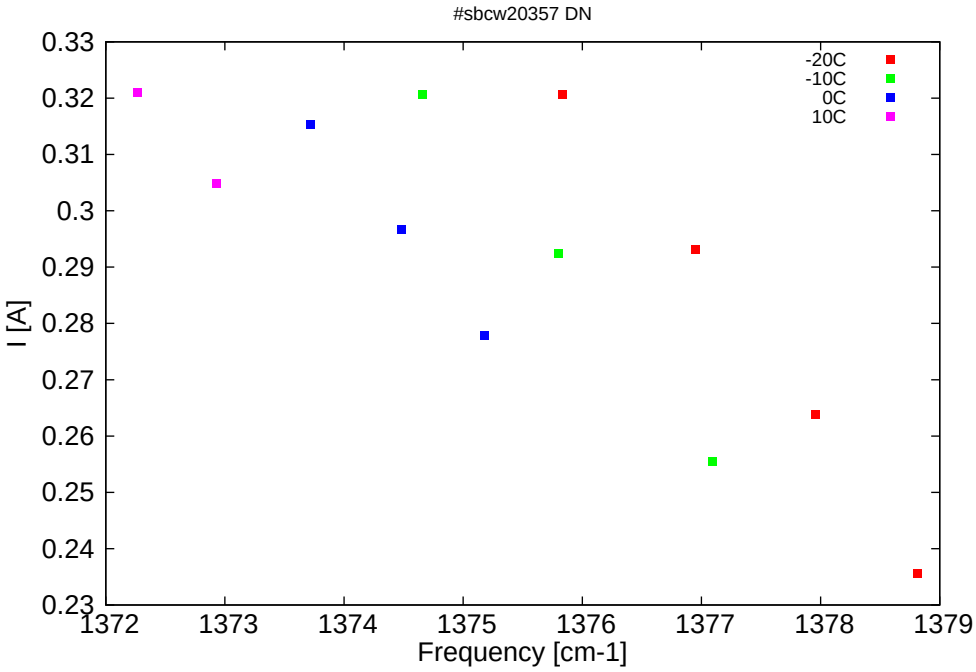

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
7252.6	1378.8	1.3	-20	13.49	0.236
7257.1	1378	9.1	-20	13.94	0.264
7262.4	1376.9	15.8	-20	14.4	0.293
7268.3	1375.8	19.6	-20	14.87	0.321
7261.7	1377.1	0.8	-10	13.59	0.256
7268.5	1375.8	9.2	-10	14.17	0.292
7274.5	1374.7	13.7	-10	14.64	0.321
7271.8	1375.2	0.6	0	13.75	0.278
7275.5	1374.5	4.2	0	14.04	0.297
7279.5	1373.7	7	0	14.34	0.315
7283.7	1372.9	0.5	10	13.92	0.305
7287.2	1372.3	3.3	10	14.16	0.321

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

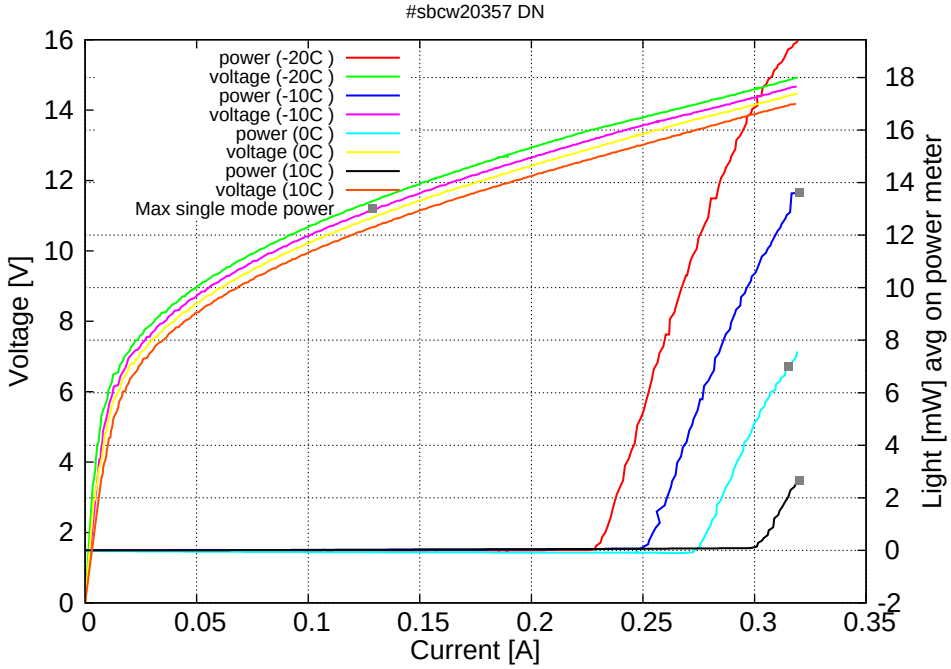

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.23A / Vth=13.4V (2-wires measurements). Maximum operation current: 0.32A for all temperatures.

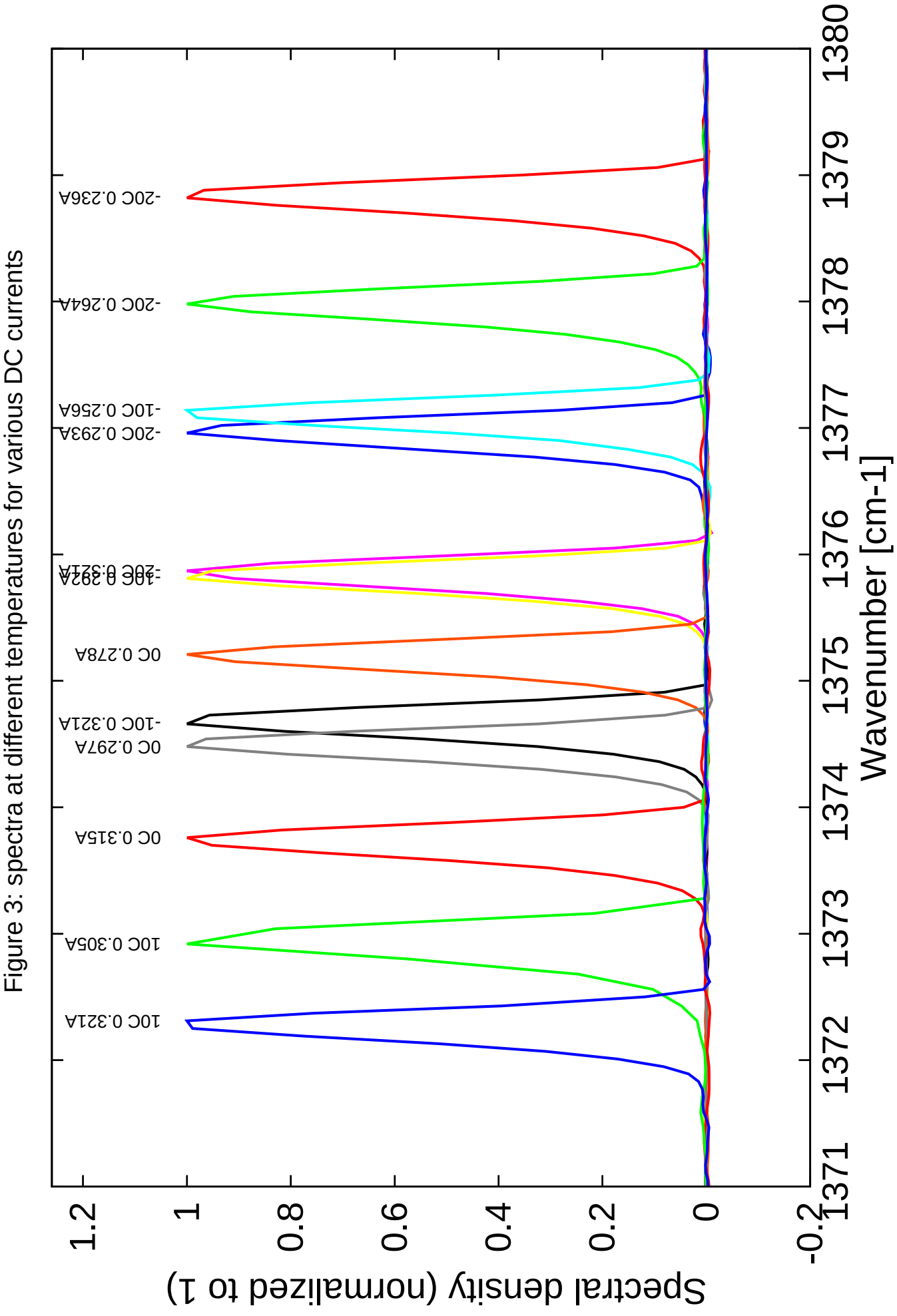

Figure 3: spectra at different temperatures for various DC currents