

Datasheet for #sbcw2854 DN

Recommendations:

Please read the starter kit user manual (at least installation chapter 5), if available, and have a look at the FAQ at <http://www.alpeslasers.ch/alfaq.pdf>

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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). To use with a power-supply ILX Lightwave LDX-3232 or equivalent.



Figure 1: Support mounting for #sbcw2854 DN (please note that the laser is connected to the DN pad drawn in blue)

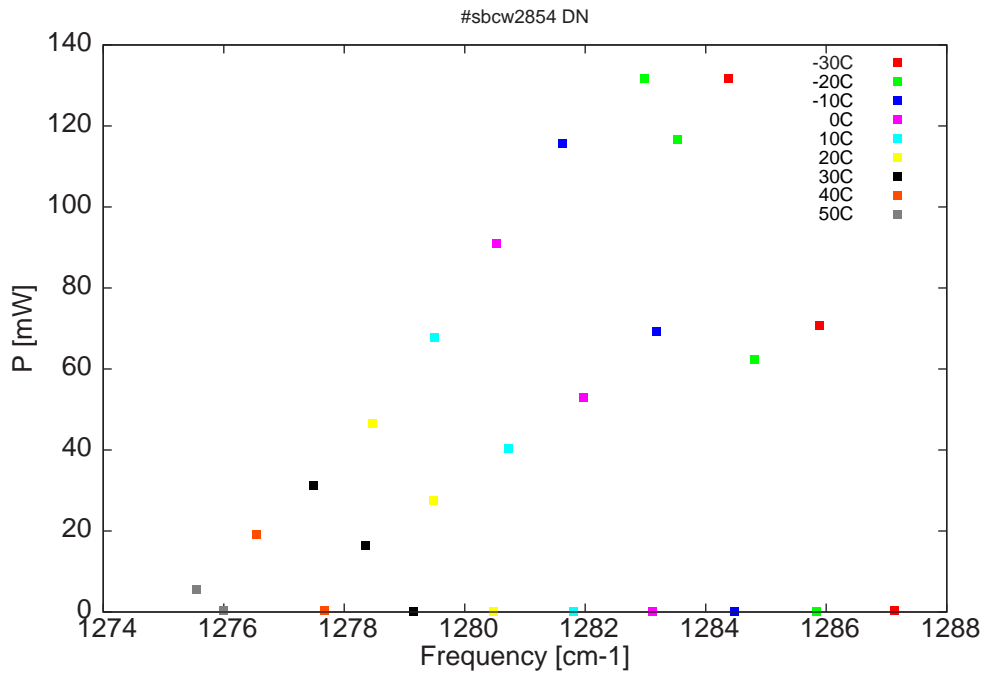


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

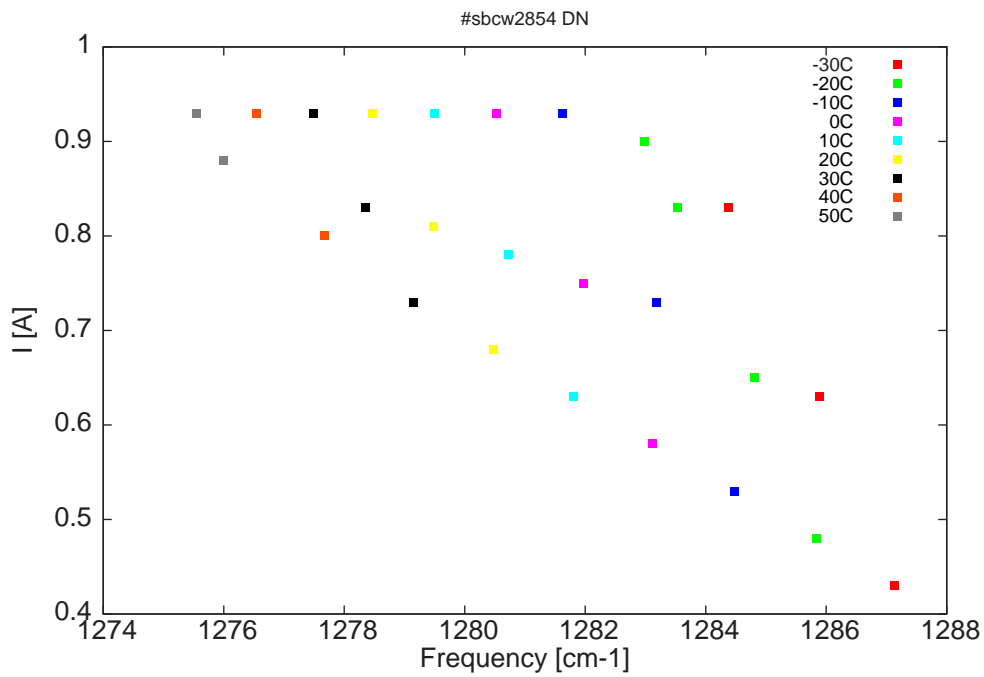


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7769.2	1287.1	0.4	-30	8.1	0.43
7776.7	1285.9	70.7	-30	8.8	0.63
7785.9	1284.4	131.7	-30	9.4	0.83
7777.1	1285.8	0.1	-20	8.2	0.48
7783.3	1284.8	62.3	-20	8.8	0.65
7791	1283.5	116.6	-20	9.3	0.83
7794.4	1283	131.8	-20	9.5	0.9
7785.3	1284.5	0.1	-10	8.3	0.53
7793.1	1283.2	69.3	-10	8.9	0.73
7802.6	1281.6	115.6	-10	9.6	0.93
7793.5	1283.1	0.2	0	8.4	0.58
7800.5	1282	52.9	0	8.9	0.75
7809.3	1280.5	91	0	9.5	0.93
7801.5	1281.8	0.1	10	8.5	0.63
7808	1280.7	40.3	10	9	0.78
7815.6	1279.5	67.9	10	9.4	0.93
7809.5	1280.5	0.1	20	8.6	0.68
7815.6	1279.5	27.4	20	9	0.81
7821.8	1278.5	46.6	20	9.3	0.93
7817.7	1279.1	0.1	30	8.6	0.73
7822.6	1278.4	16.4	30	8.9	0.83
7827.9	1277.5	31.3	30	9.3	0.93
7826.7	1277.7	0.3	40	8.8	0.8
7833.7	1276.5	19.1	40	9.2	0.93
7837	1276	0.3	50	9	0.88
7839.8	1275.5	5.6	50	9.1	0.93

Table 1 : singlemode optical output power as function of operating parameters

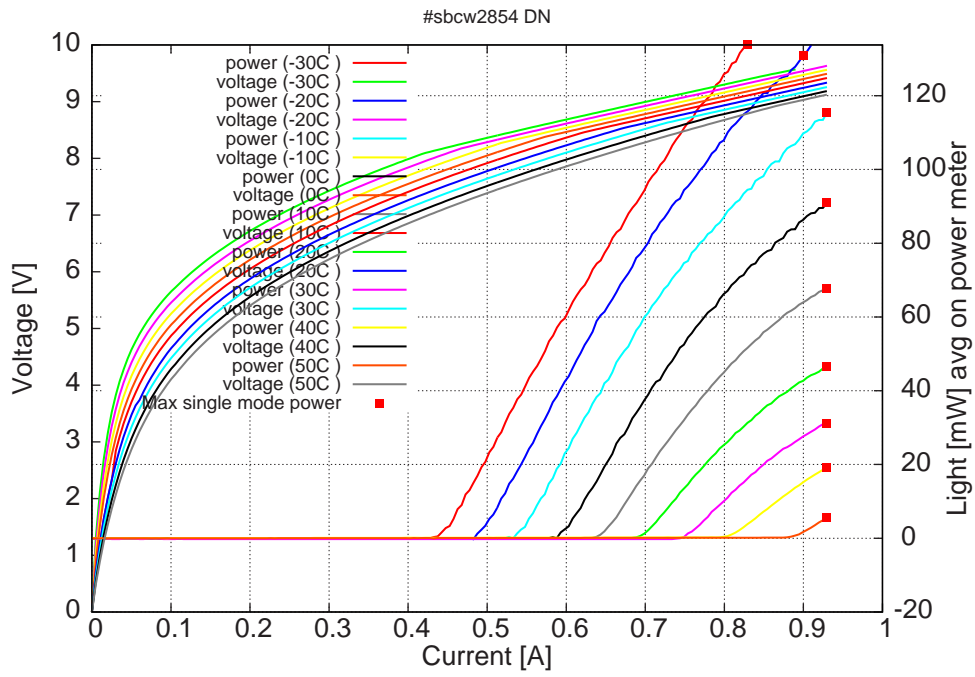


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -30C: $I_{th}=435\text{mA}$ / $V_{th}= 8.14\text{V}$ (2-wires measurements).

Maximum operation current: 0.83A at -30C, 0.9A at -20C, 0.93A between -10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

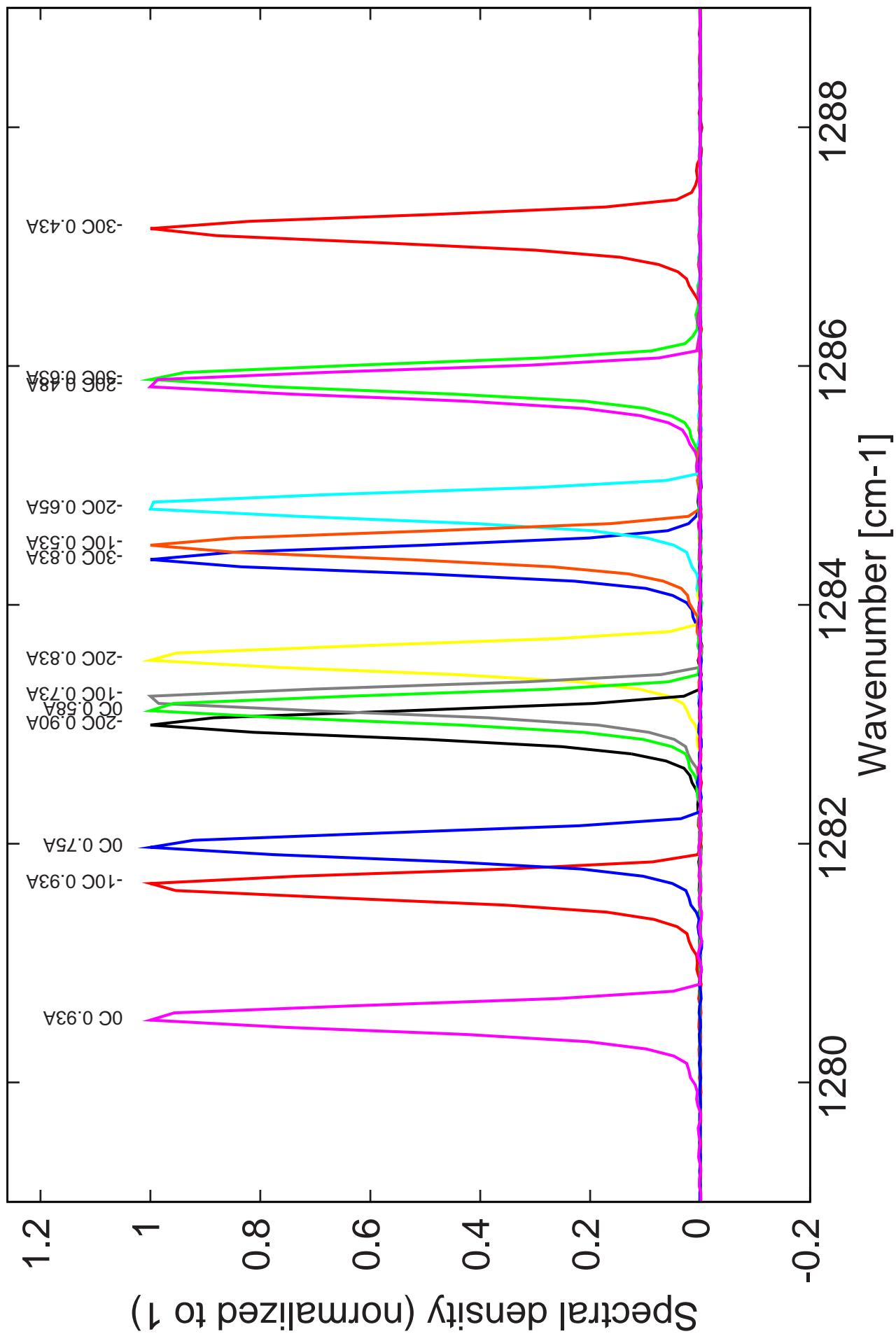


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