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Datasheet for #sbcw24277 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 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 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.

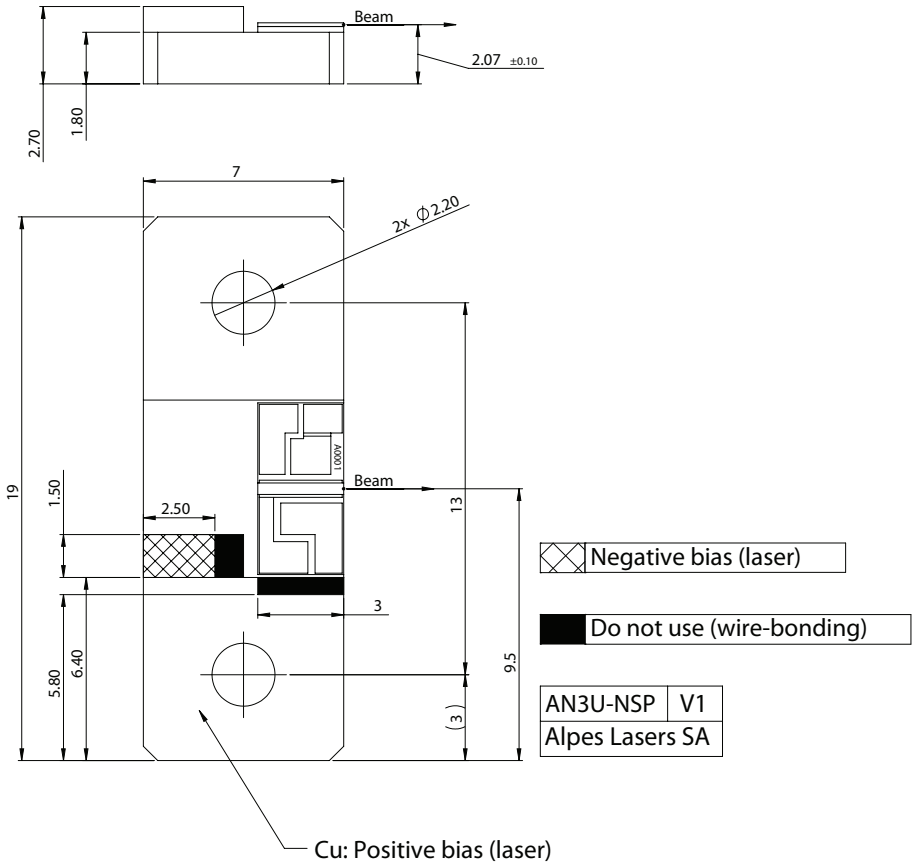

Figure 1: Mechanical and electrical interface for #sbcw24277 DN

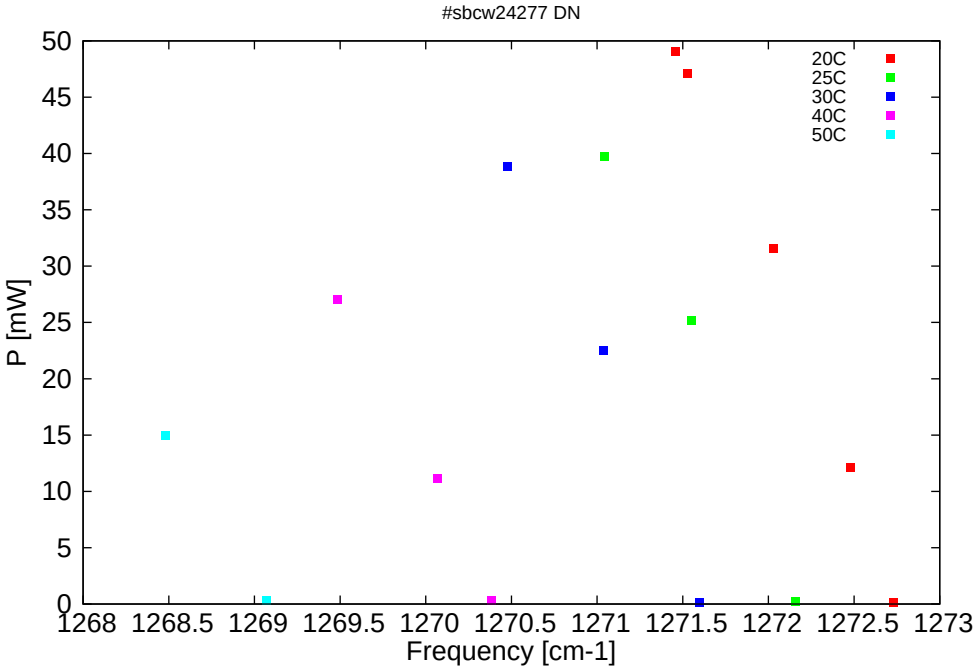

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

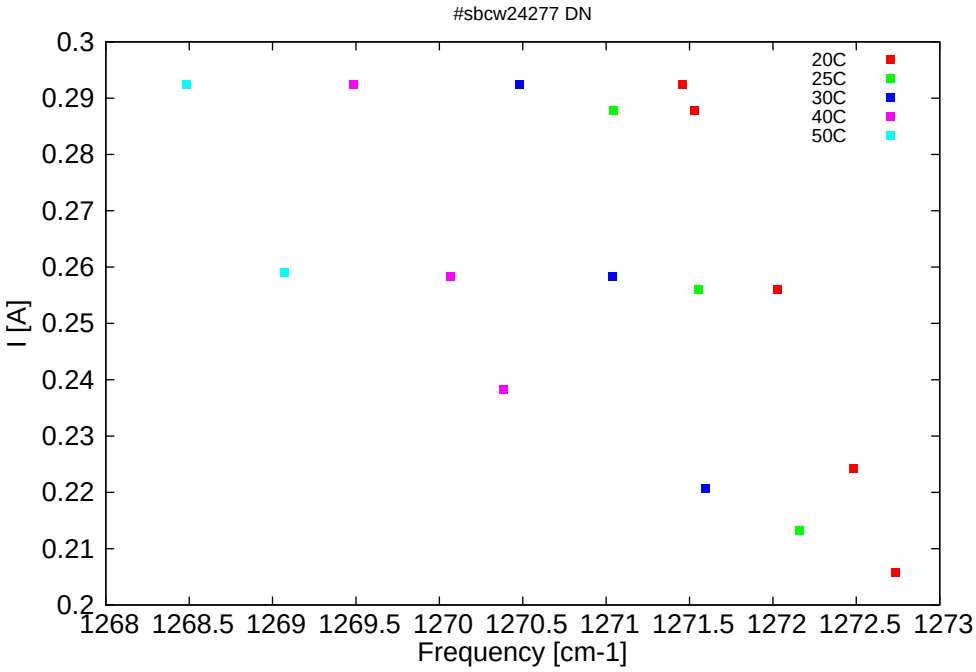

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
7857.1	1272.7	0.1	20	8.61	0.206
7858.7	1272.5	12.1	20	8.76	0.224
7861.5	1272	31.6	20	9.01	0.256
7864.6	1271.5	47.1	20	9.27	0.288
7865	1271.5	49.1	20	9.31	0.293
7860.7	1272.2	0.3	25	8.64	0.213
7864.4	1271.6	25.1	25	8.98	0.256
7867.6	1271	39.7	25	9.24	0.288
7864.1	1271.6	0.1	30	8.66	0.221
7867.6	1271	22.5	30	8.96	0.258
7871.1	1270.5	38.9	30	9.24	0.293
7871.6	1270.4	0.3	40	8.74	0.238
7873.6	1270.1	11.2	40	8.9	0.258
7877.2	1269.5	27.1	40	9.18	0.293
7879.8	1269.1	0.3	50	8.85	0.259
7883.4	1268.5	15	50	9.12	0.293

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

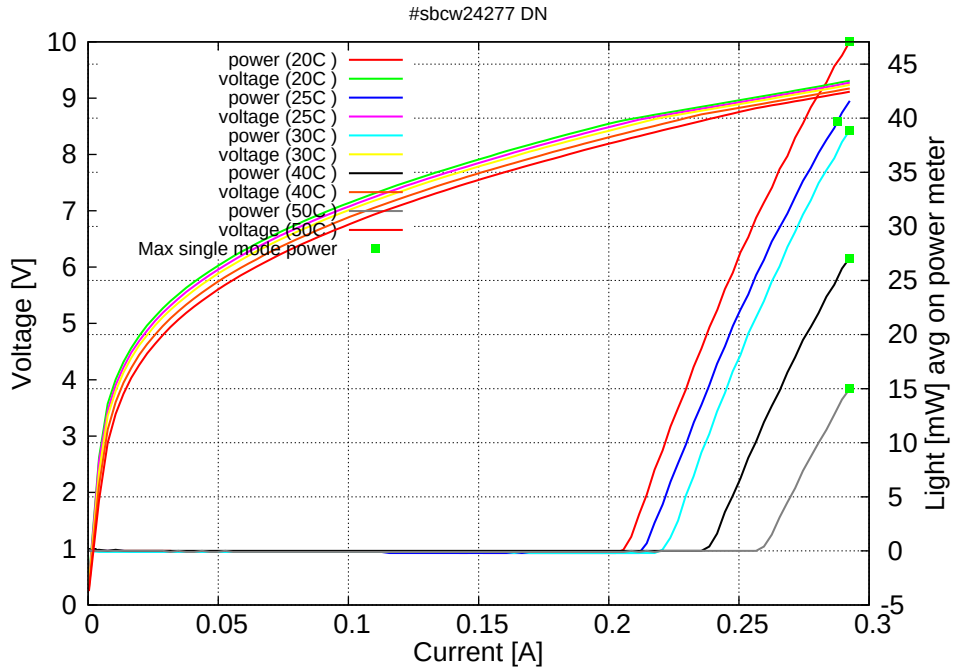

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at 20C: Ith=0.20A / Vth=8.6V (2-wires measurements). Maximum operation current: 0.295A for all temperatures.

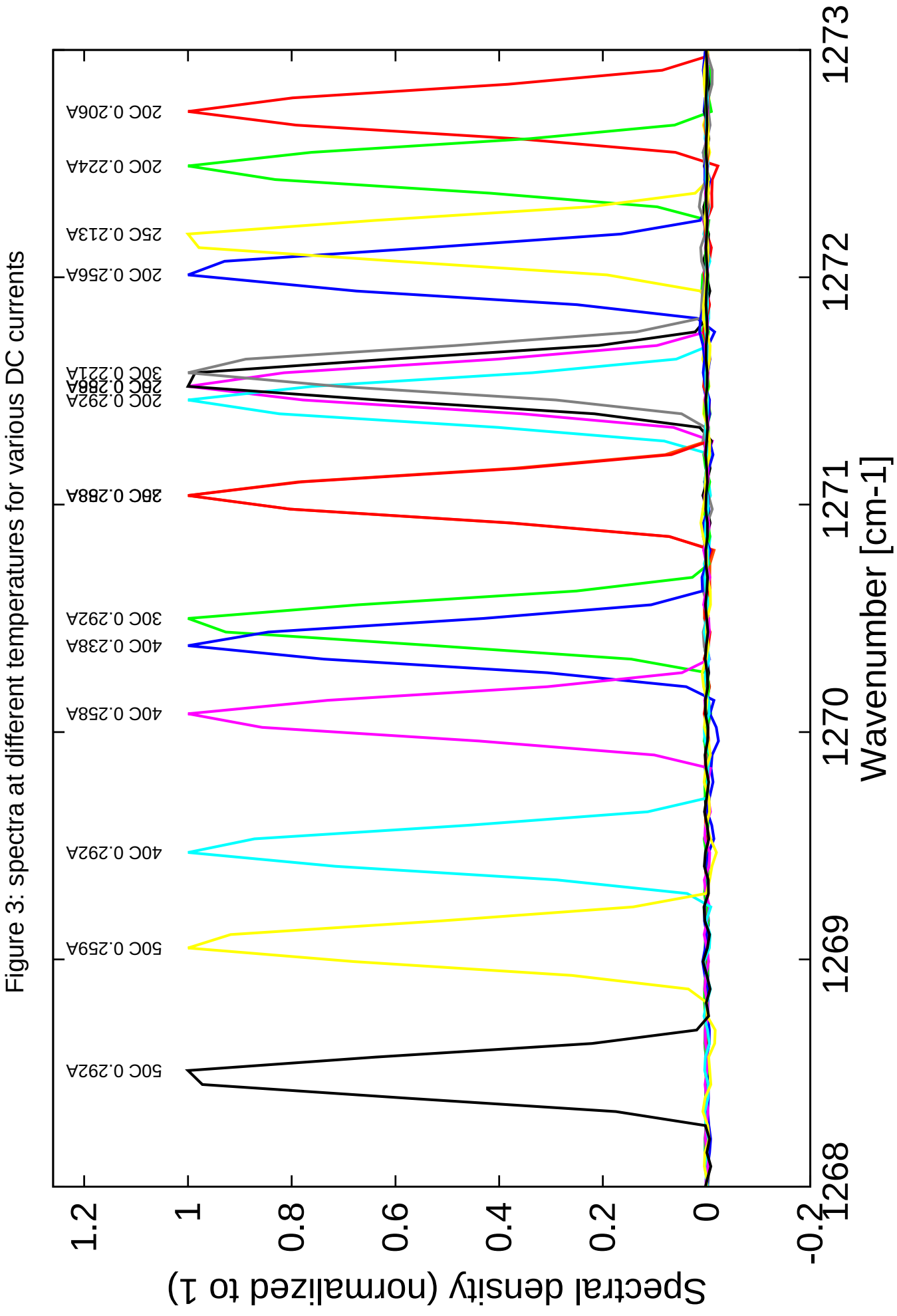

Figure 3: spectra at different temperatures for various DC currents