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Datasheet for #sbcw21265 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.

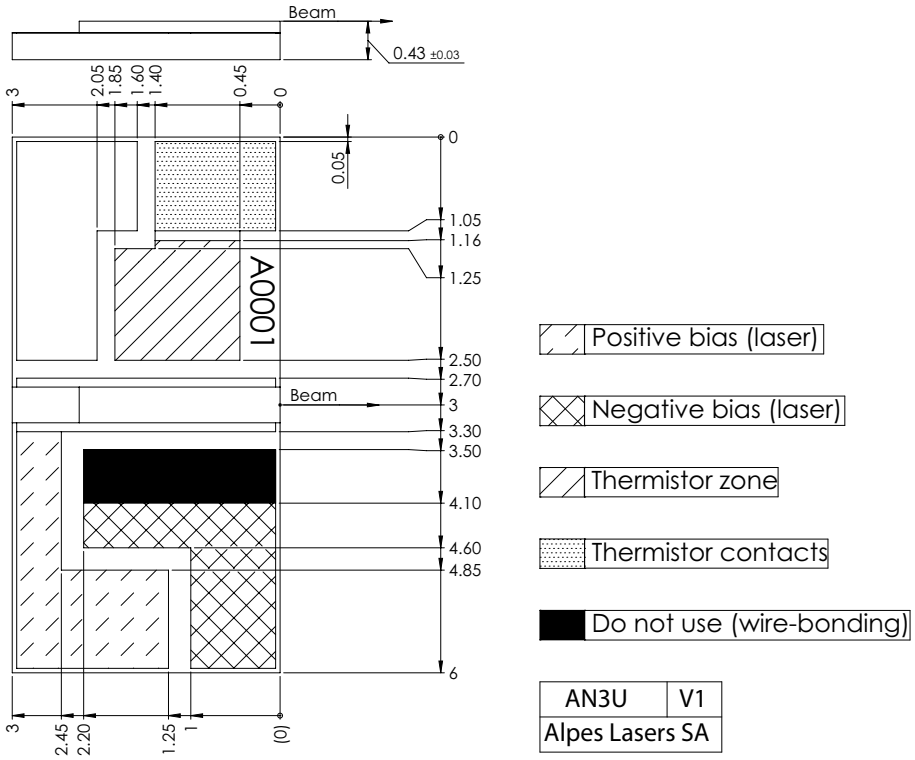

Figure 1: Mechanical and electrical interface for #sbcw21265 DN (please note that AlN submount numbering is A0NJU)

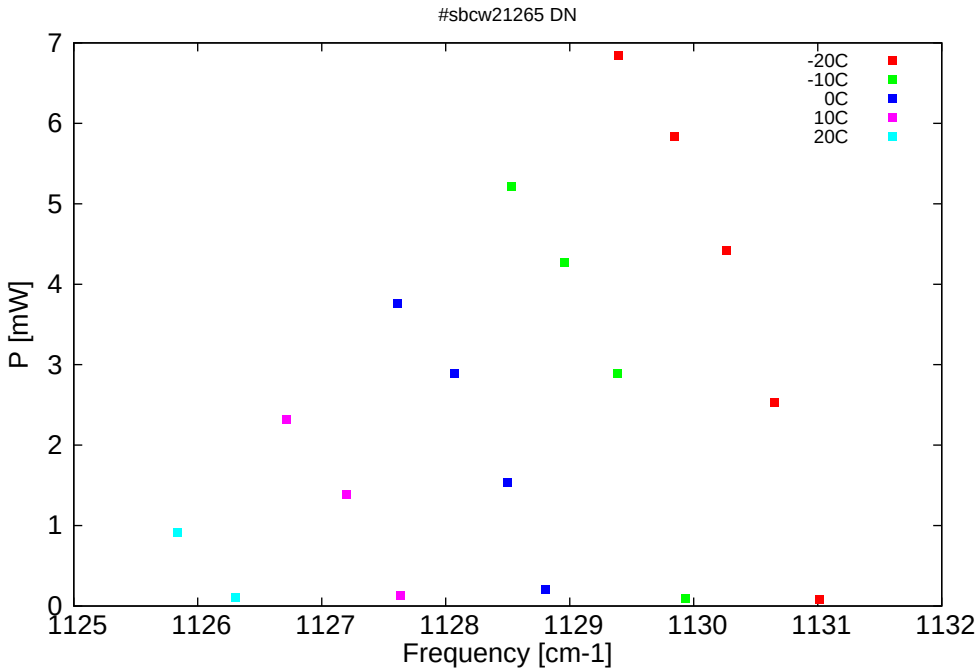

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

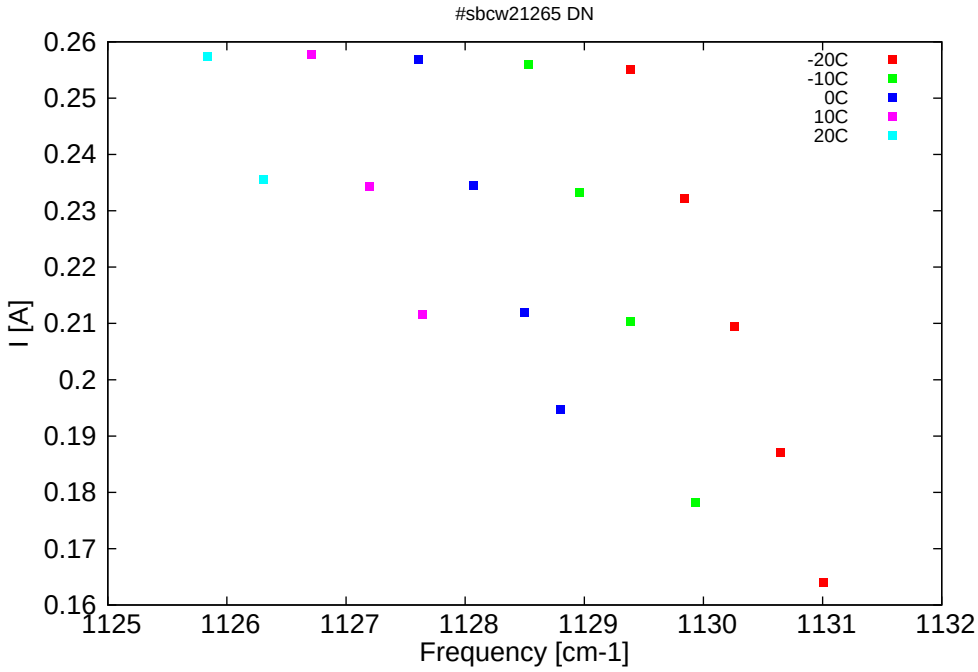

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
8841.6	1131	0.1	-20	9.22	0.164
8844.5	1130.6	2.5	-20	9.62	0.187
8847.5	1130.3	4.4	-20	10.01	0.209
8850.8	1129.8	5.8	-20	10.4	0.232
8854.3	1129.4	6.8	-20	10.78	0.255
8850.1	1129.9	0.1	-10	9.29	0.178
8854.3	1129.4	2.9	-10	9.85	0.21
8857.7	1129	4.3	-10	10.24	0.233
8861.1	1128.5	5.2	-10	10.6	0.256
8858.9	1128.8	0.2	0	9.39	0.195
8861.3	1128.5	1.5	0	9.68	0.212
8864.7	1128.1	2.9	0	10.06	0.235
8868.3	1127.6	3.8	0	10.43	0.257
8868.1	1127.6	0.1	10	9.52	0.212
8871.5	1127.2	1.4	10	9.9	0.234
8875.4	1126.7	2.3	10	10.28	0.258
8878.6	1126.3	0.1	20	9.75	0.236
8882.3	1125.8	0.9	20	10.1	0.257

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

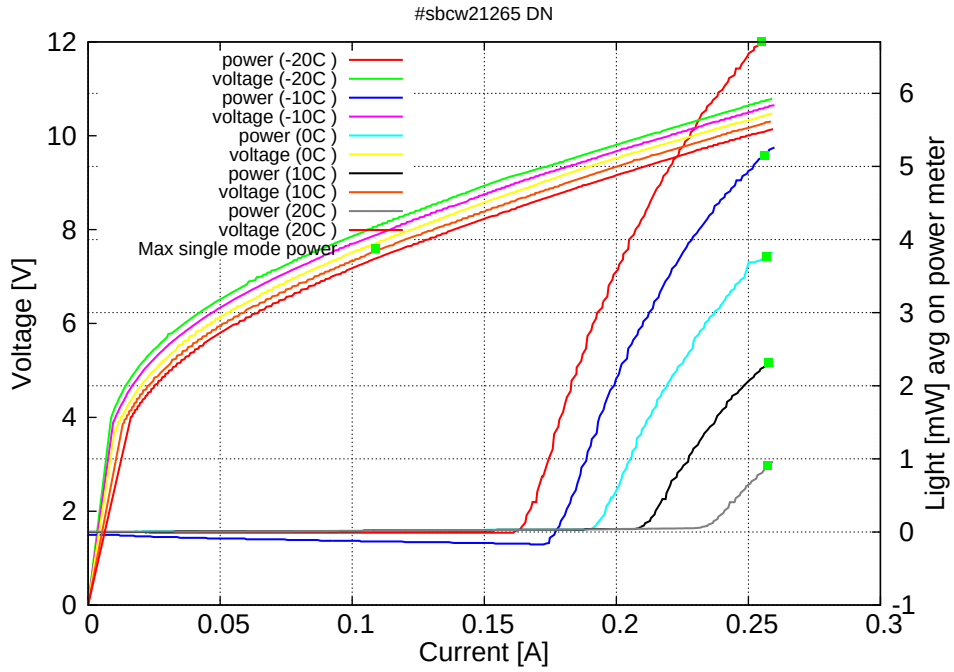

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.16A / Vth=9.2V (2-wires measurements). Maximum operation current: 0.255A between -20C and -10C, 0.26A between 0C and 20C.

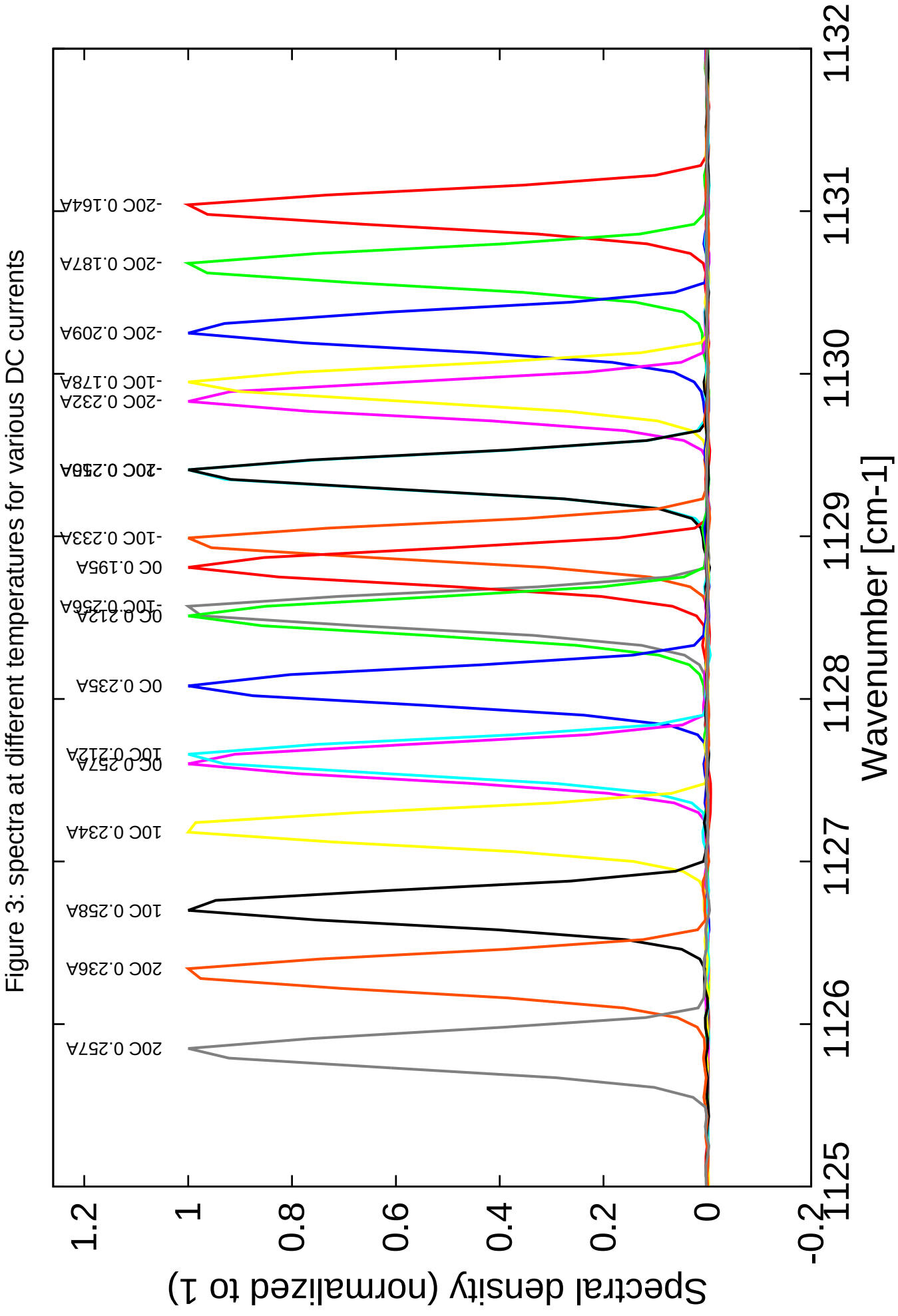

Figure 3: spectra at different temperatures for various DC currents