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Datasheet for #sbcw24069 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.

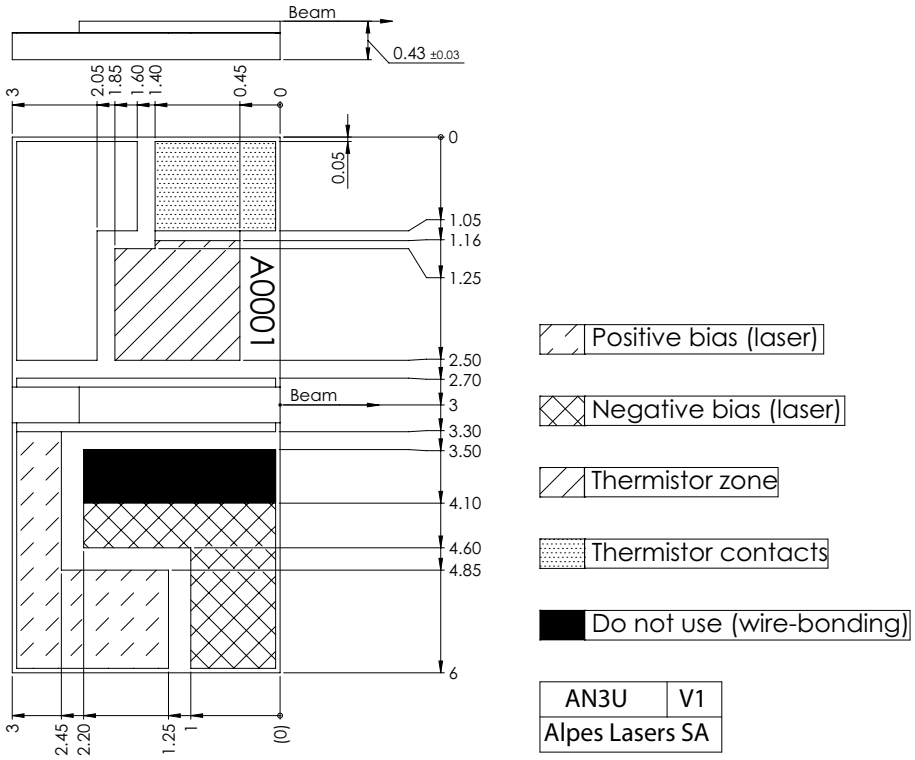

Figure 1: Mechanical and electrical interface for #sbcw24069 DN (please note that AlN submount numbering is A118Z)

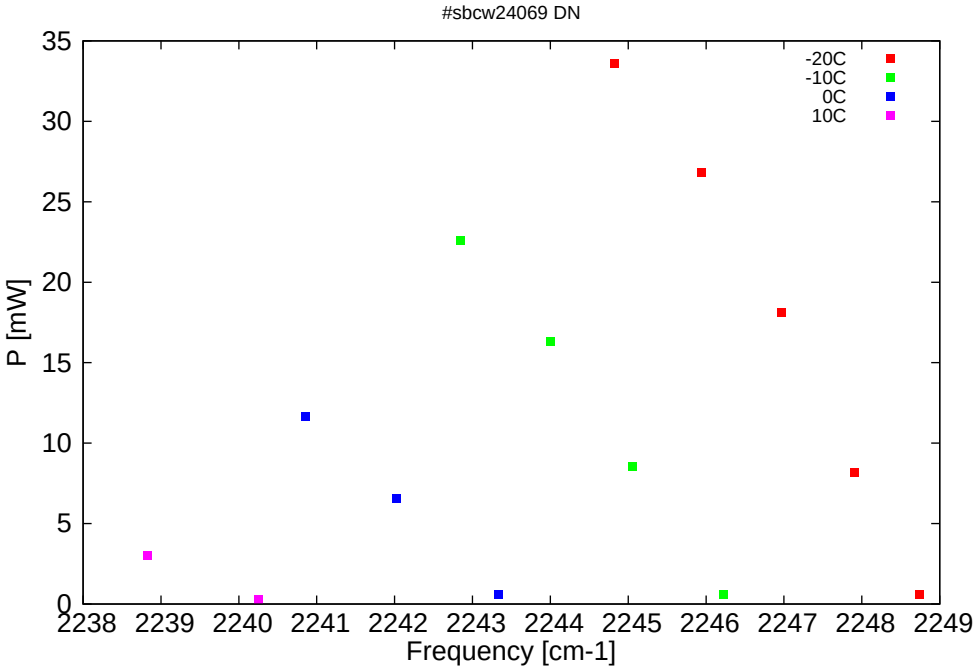

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

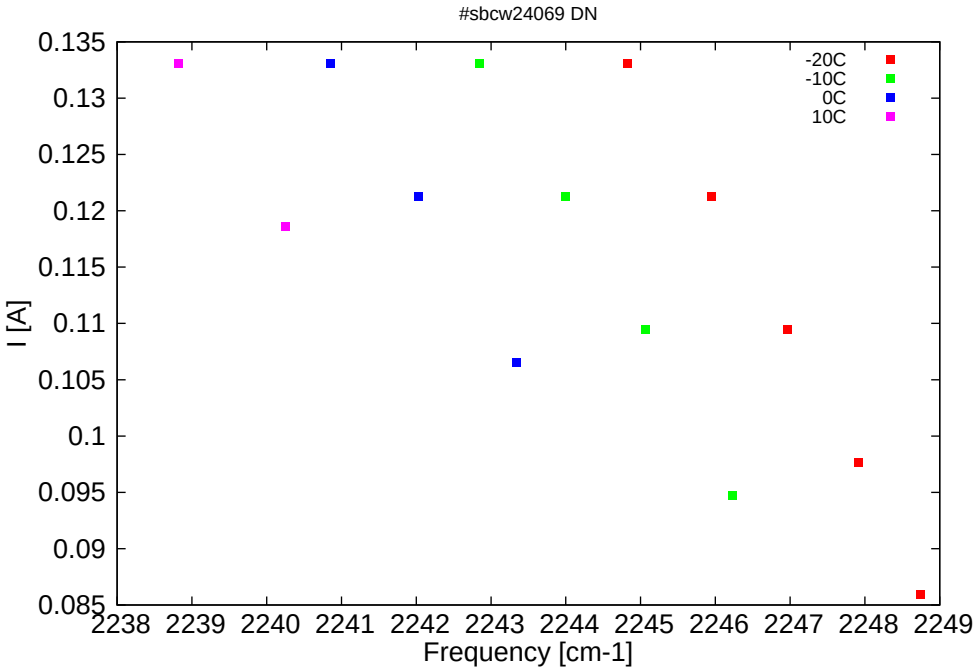

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
4446.9	2248.7	0.6	-20	13.13	0.086
4448.6	2247.9	8.2	-20	13.37	0.098
4450.4	2247	18.1	-20	13.64	0.11
4452.5	2245.9	26.8	-20	13.9	0.121
4454.7	2244.8	33.6	-20	14.18	0.133
4451.9	2246.2	0.6	-10	13.22	0.095
4454.2	2245.1	8.5	-10	13.52	0.11
4456.3	2244	16.3	-10	13.78	0.121
4458.6	2242.8	22.6	-10	14.05	0.133
4457.6	2243.3	0.6	0	13.37	0.107
4460.2	2242	6.5	0	13.68	0.121
4462.6	2240.9	11.7	0	13.93	0.133
4463.8	2240.2	0.3	10	13.56	0.119
4466.6	2238.8	3	10	13.85	0.133

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

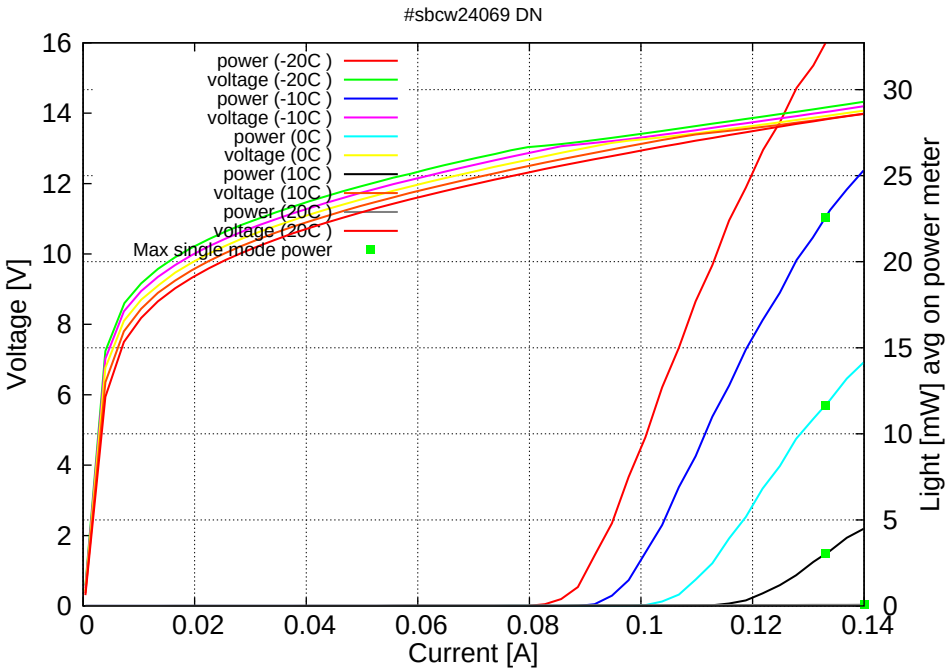

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.08A / Vth=13.0V (2-wires measurements). Maximum operation current: 0.14A for all temperatures.

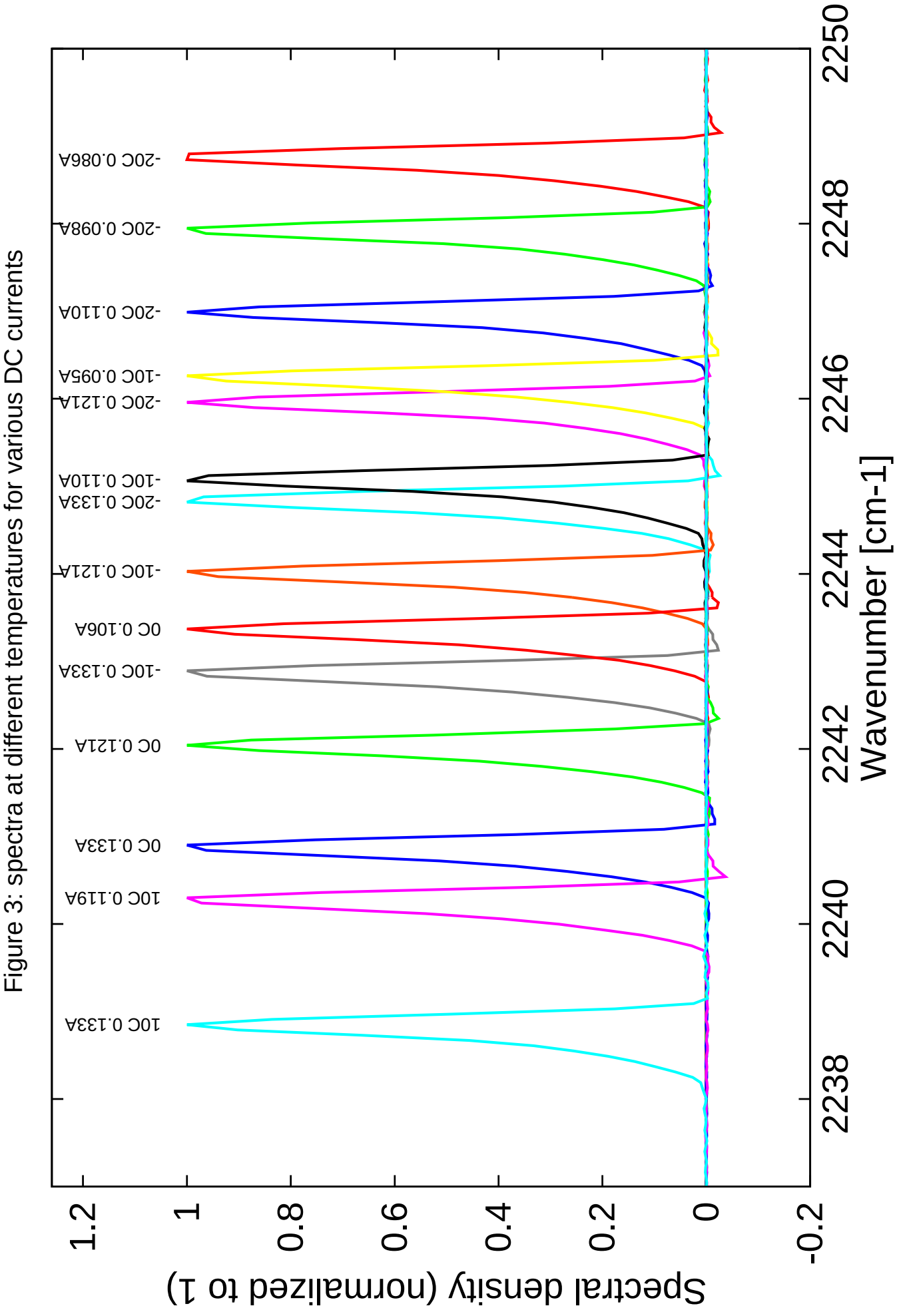

Figure 3: spectra at different temperatures for various DC currents