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Datasheet for #sbcw25497 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.

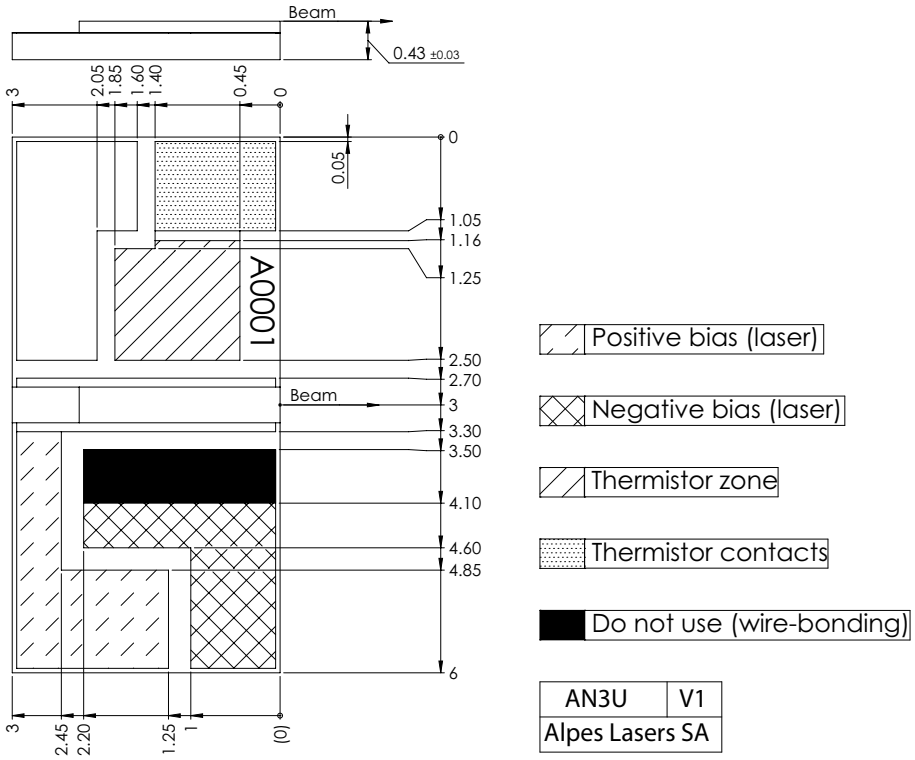

Figure 1: Mechanical and electrical interface for #sbcw25497 DN (please note that AlN submount numbering is A12MF)

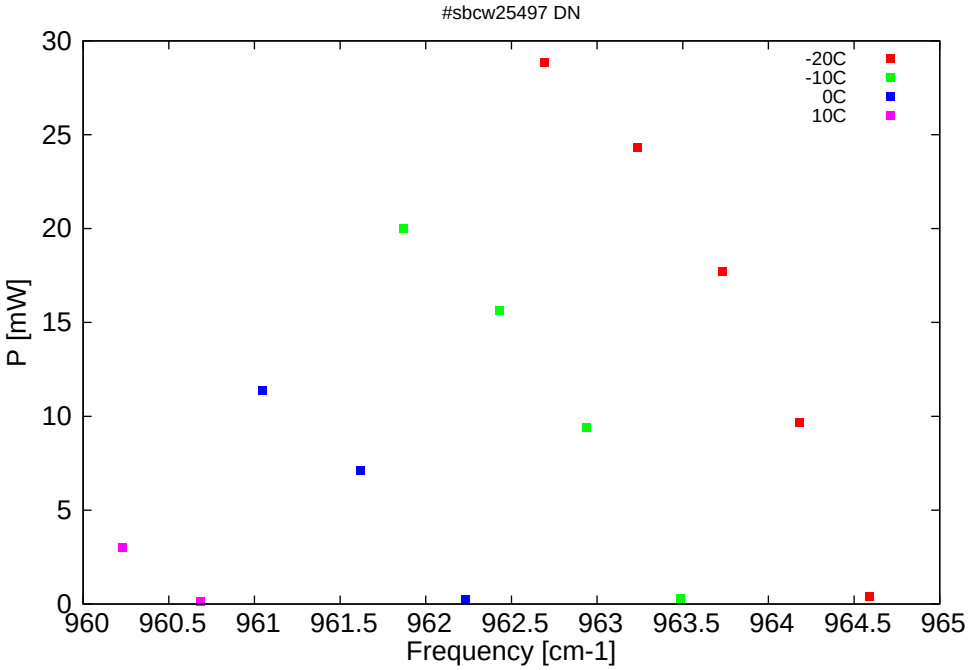

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

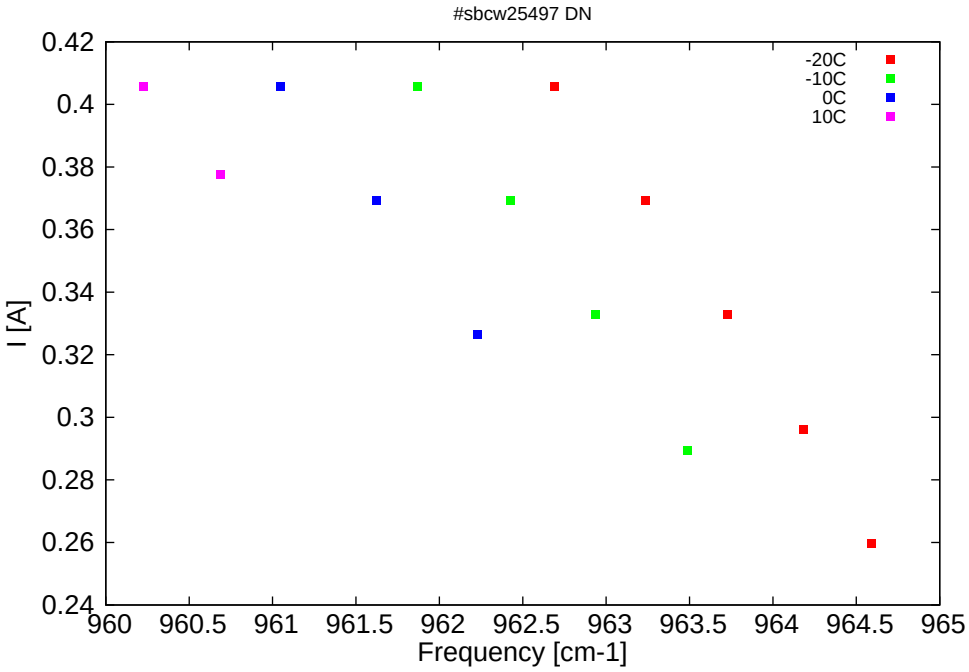

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
10367.1	964.6	0.4	-20	9.6	0.26
10371.5	964.2	9.7	-20	10	0.296
10376.3	963.7	17.7	-20	10.34	0.333
10381.7	963.2	24.3	-20	10.69	0.369
10387.6	962.7	28.8	-20	11.04	0.406
10379	963.5	0.3	-10	9.7	0.289
10384.9	962.9	9.4	-10	10.15	0.333
10390.4	962.4	15.6	-10	10.54	0.369
10396.4	961.9	20	-10	10.91	0.406
10392.5	962.2	0.2	0	9.99	0.326
10399.1	961.6	7.1	0	10.44	0.369
10405.3	961	11.4	0	10.82	0.406
10409.2	960.7	0.1	10	10.42	0.378
10414.2	960.2	3	10	10.72	0.406

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

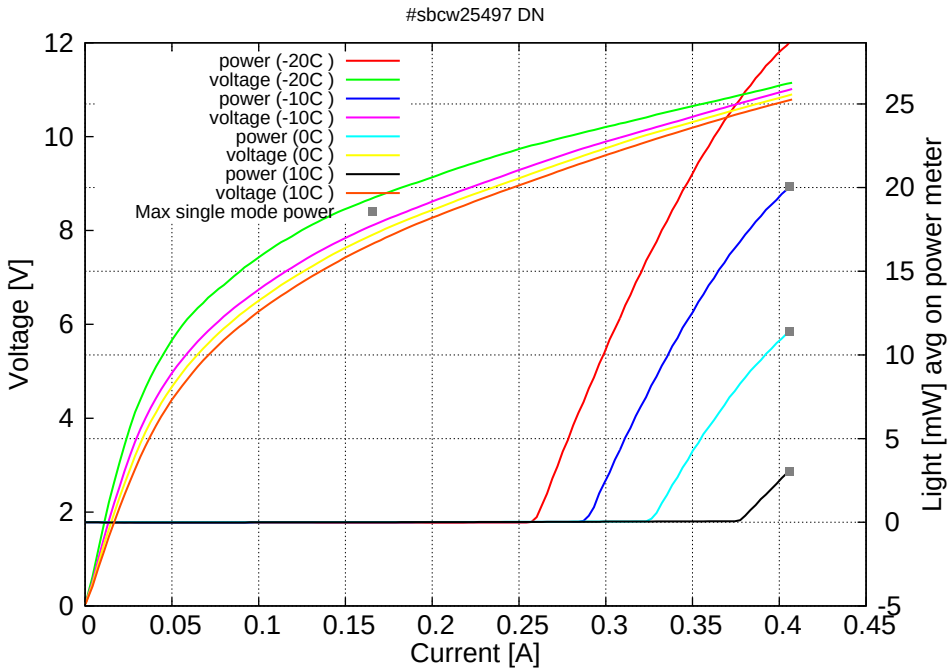

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.25A / Vth=9.5V (2-wires measurements). Maximum operation current: 0.410A for all temperatures.

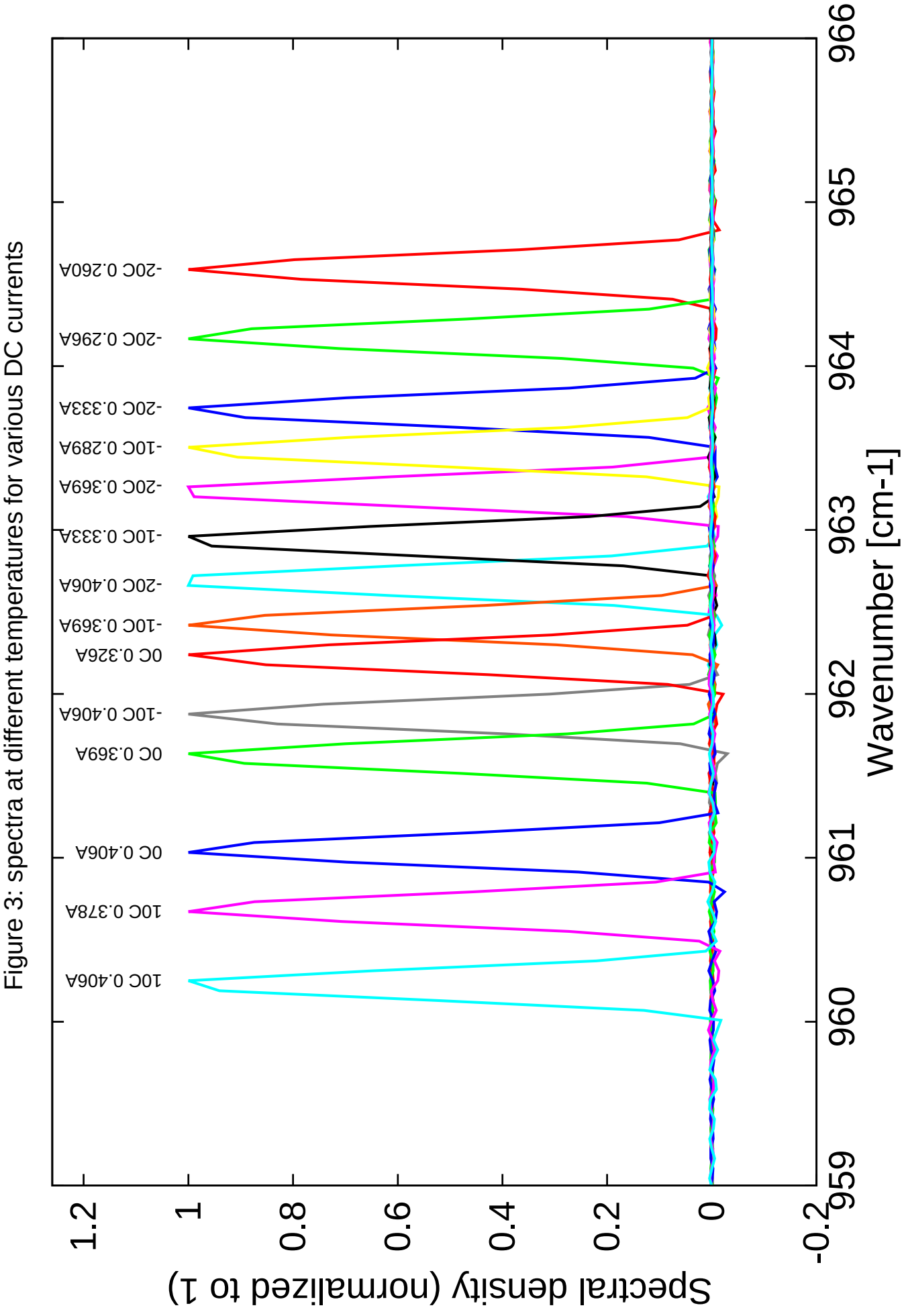

Figure 3: spectra at different temperatures for various DC currents