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Datasheet for #sbcw26113 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at
`https://www.alpeslasers.ch/resources/#faq`

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.

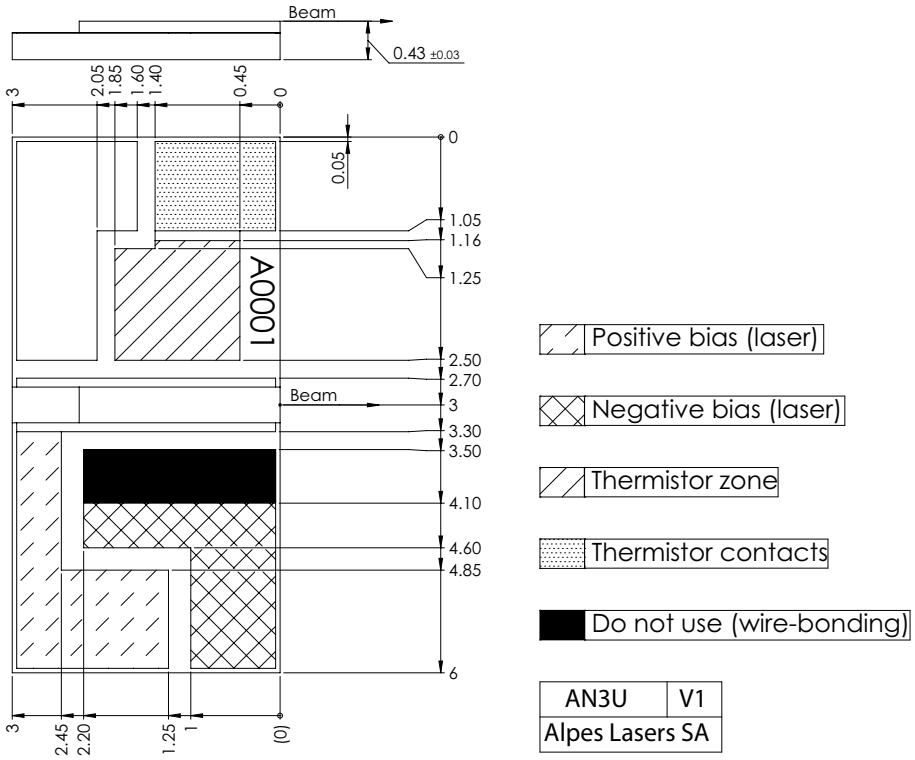

Figure 1: Mechanical and electrical interface for #sbcw26113 DN (please note that AlN submount numbering is A0V92)

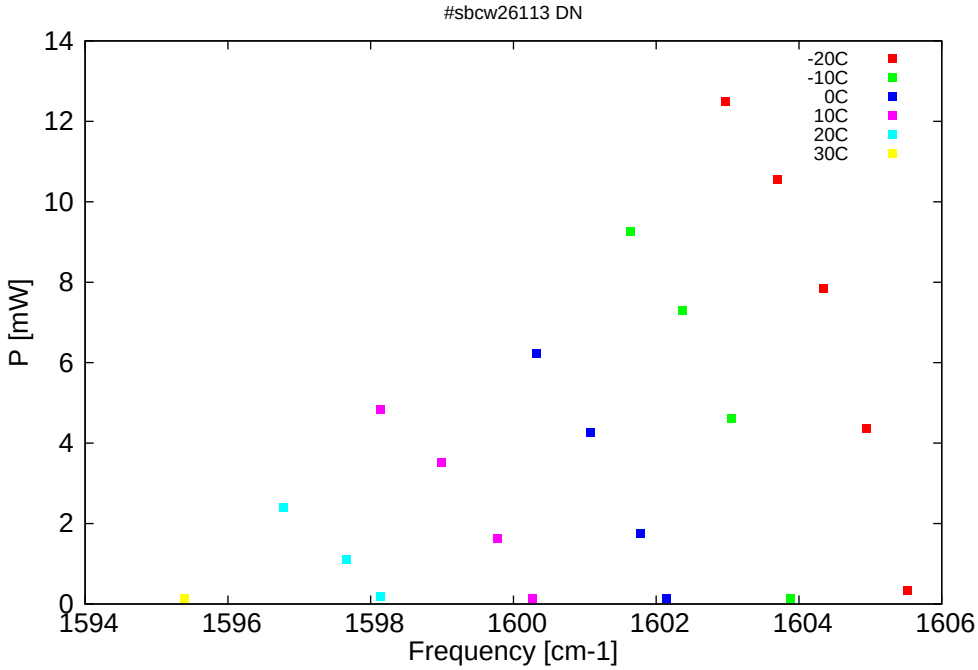

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

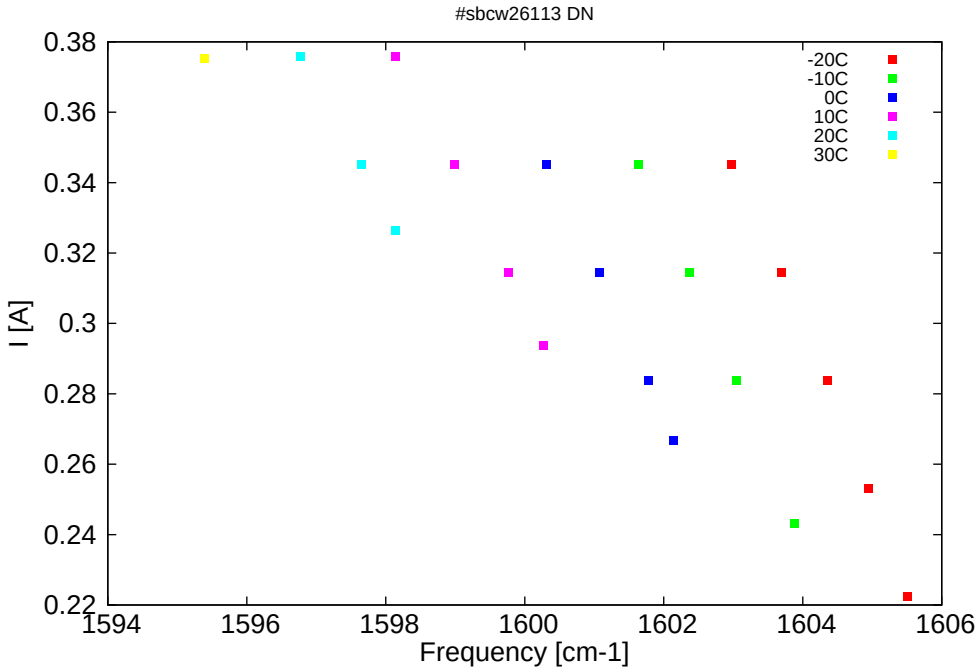

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
6228.5	1605.5	0.3	-20	9.41	0.223
6230.7	1605	4.4	-20	9.67	0.253
6233.1	1604.4	7.8	-20	9.93	0.284
6235.6	1603.7	10.6	-20	10.2	0.315
6238.4	1603	12.5	-20	10.48	0.345
6234.9	1603.9	0.1	-10	9.47	0.243
6238.1	1603.1	4.6	-10	9.83	0.284
6240.7	1602.4	7.3	-10	10.1	0.315
6243.6	1601.6	9.3	-10	10.38	0.345
6241.6	1602.1	0.1	0	9.59	0.267
6243.1	1601.8	1.7	0	9.74	0.284
6245.8	1601.1	4.3	0	10.02	0.315
6248.8	1600.3	6.2	0	10.31	0.345
6249	1600.3	0.1	10	9.75	0.294
6250.9	1599.8	1.6	10	9.95	0.315
6254	1599	3.5	10	10.23	0.345
6257.3	1598.1	4.8	10	10.54	0.376
6257.3	1598.1	0.2	20	9.98	0.326
6259.2	1597.7	1.1	20	10.16	0.345
6262.6	1596.8	2.4	20	10.46	0.376
6268.1	1595.4	0.1	30	10.38	0.375

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

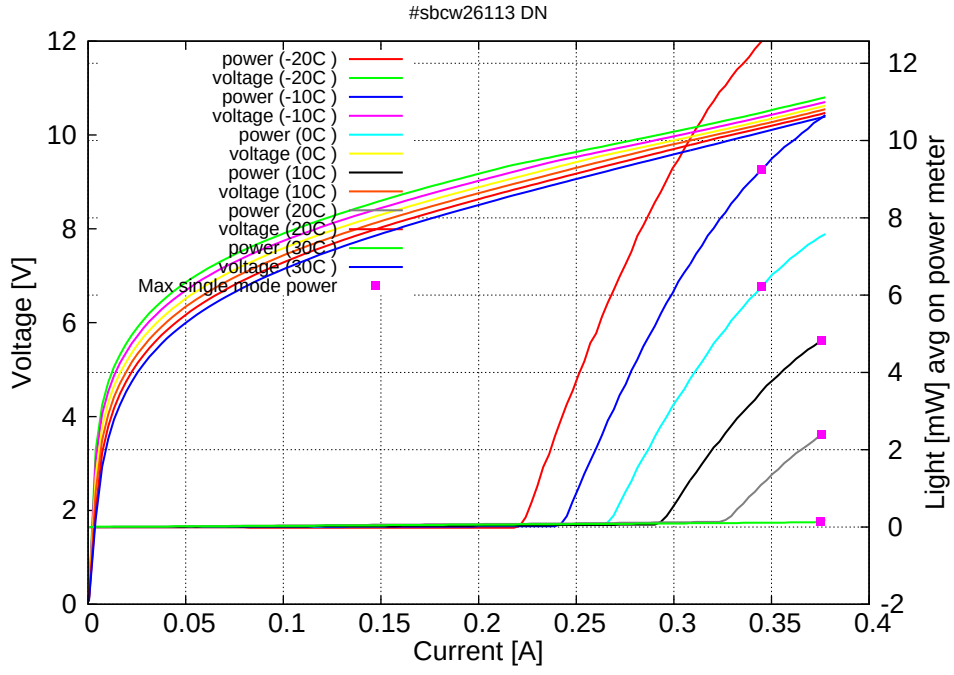

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.21A / Vth=9.4V (2-wires measurements). Maximum operation

current: 0.350A between -20C and 0C, 0.380A between 10C and 30C.

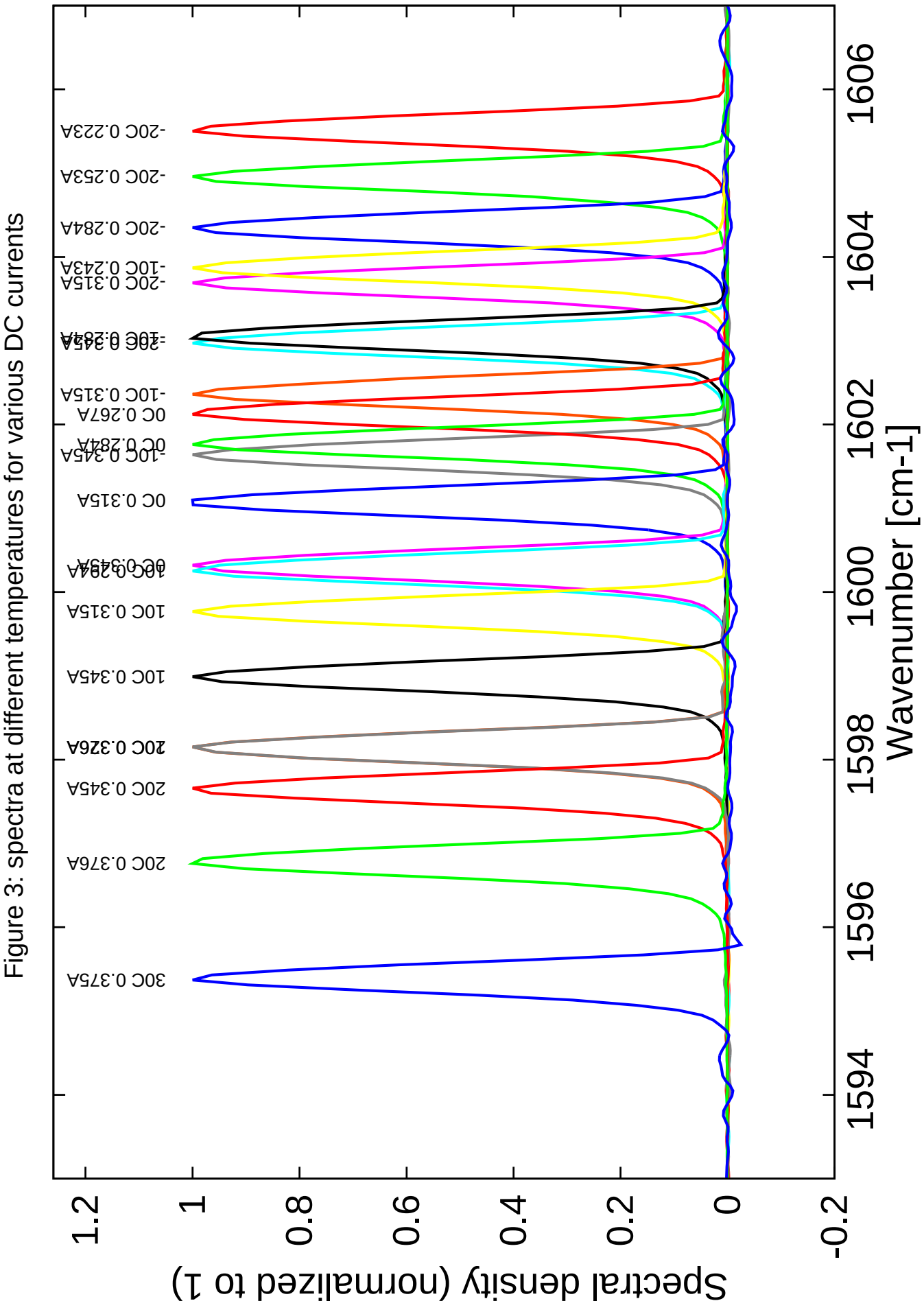

Figure 3: spectra at different temperatures for various DC currents