

Datasheet for #sbcw21536 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 #sbcw21536 DN (please note that AlN submount numbering is A0V9F)

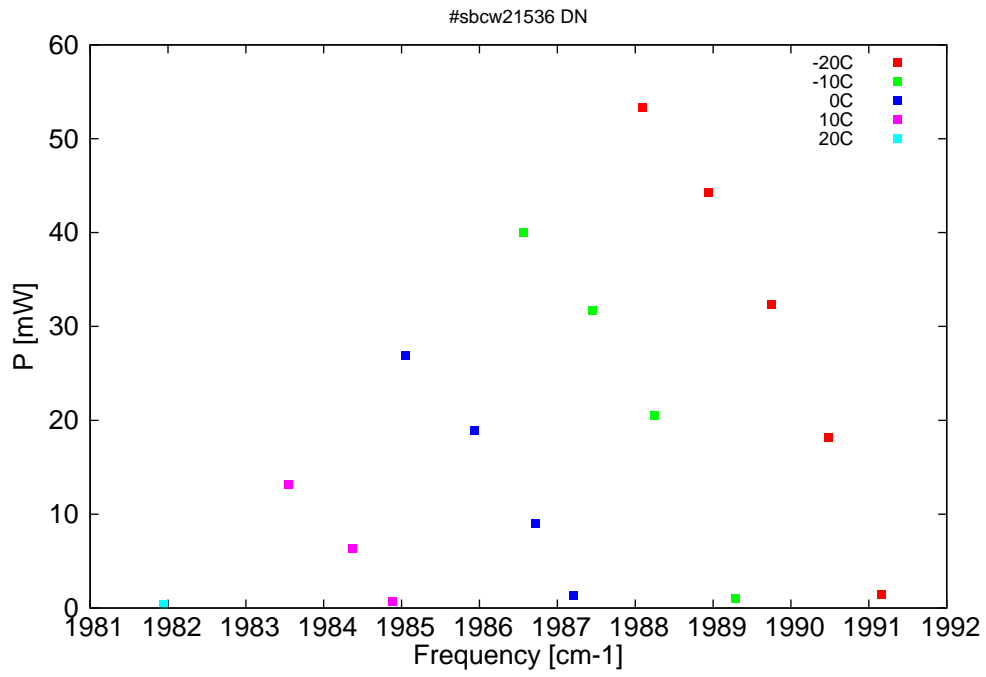


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

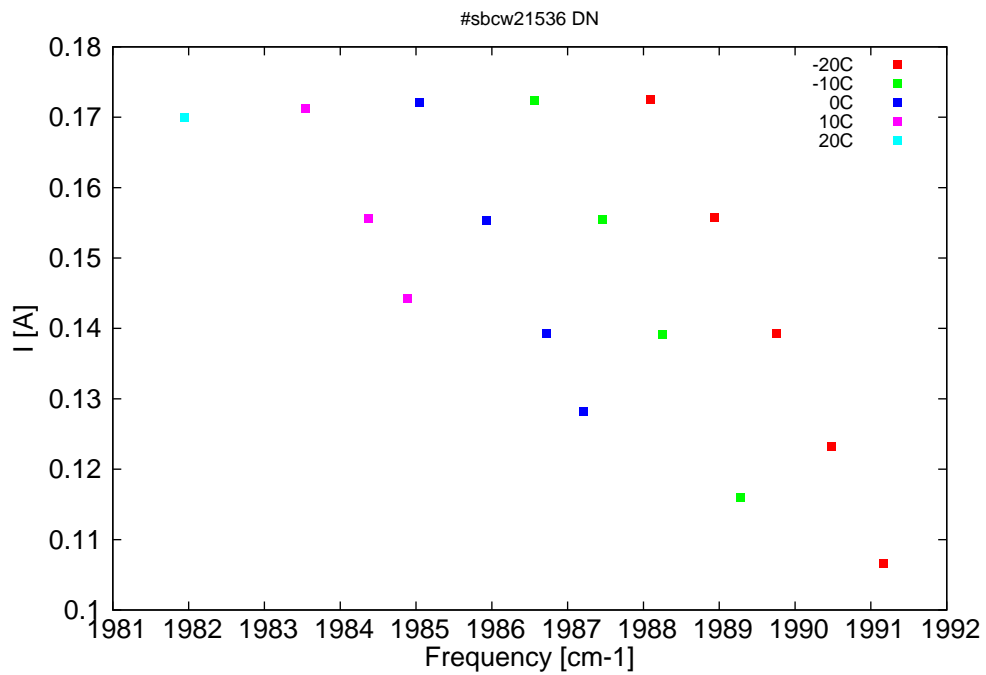


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5022.2	1991.2	1.4	-20	15.86	0.107
5023.9	1990.5	18.2	-20	16.41	0.123
5025.7	1989.8	32.4	-20	16.9	0.139
5027.8	1988.9	44.3	-20	17.39	0.156
5029.9	1988.1	53.4	-20	17.82	0.173
5026.9	1989.3	1	-10	15.84	0.116
5029.6	1988.2	20.5	-10	16.54	0.139
5031.6	1987.5	31.7	-10	16.99	0.155
5033.8	1986.6	40	-10	17.42	0.172
5032.2	1987.2	1.3	0	15.88	0.128
5033.4	1986.7	9	0	16.18	0.139
5035.4	1985.9	18.9	0	16.6	0.155
5037.7	1985	26.9	0	17	0.172
5038.1	1984.9	0.7	10	15.97	0.144
5039.4	1984.4	6.3	10	16.22	0.156
5041.5	1983.5	13.2	10	16.58	0.171
5045.6	1981.9	0.4	20	16.19	0.17

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

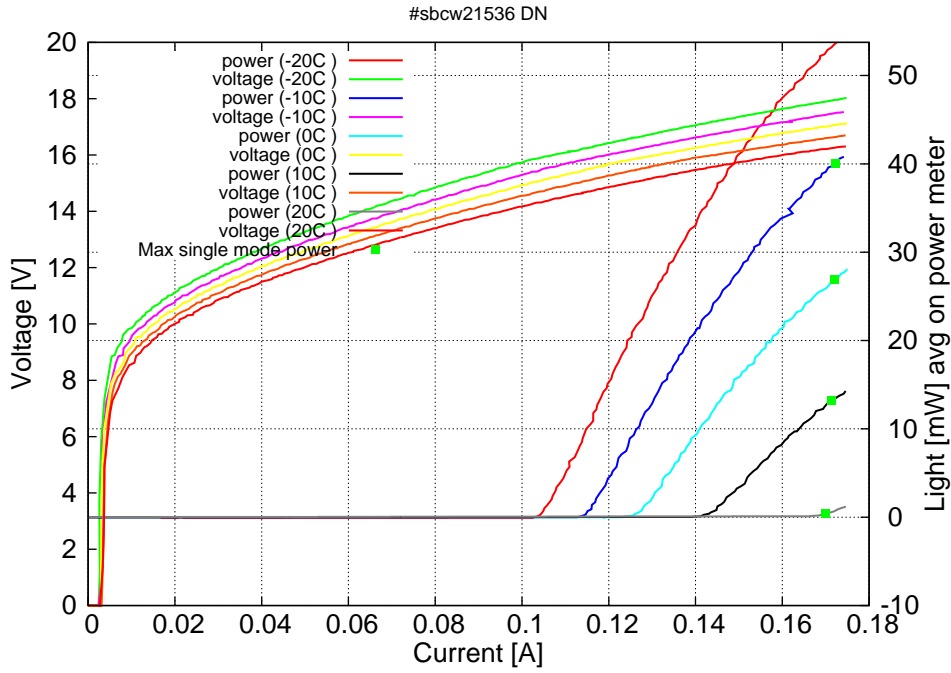


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=15.9V$ (2-wires measurements). Maximum operation current: 0.175A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

