

**Datasheet for #sbcw18217 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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 #sbcw18217 DN

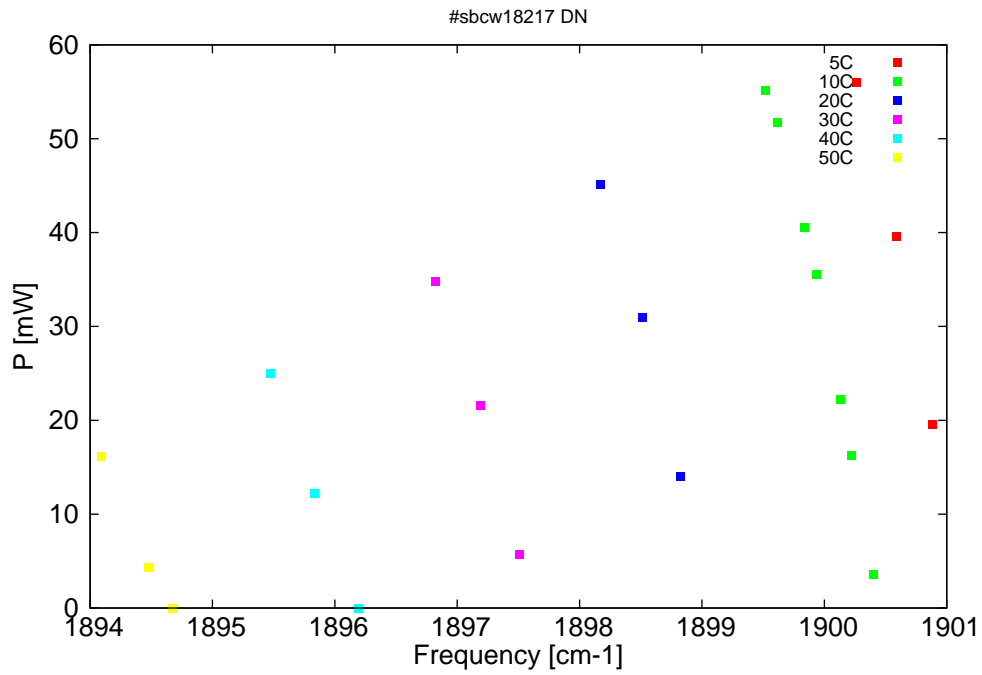


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

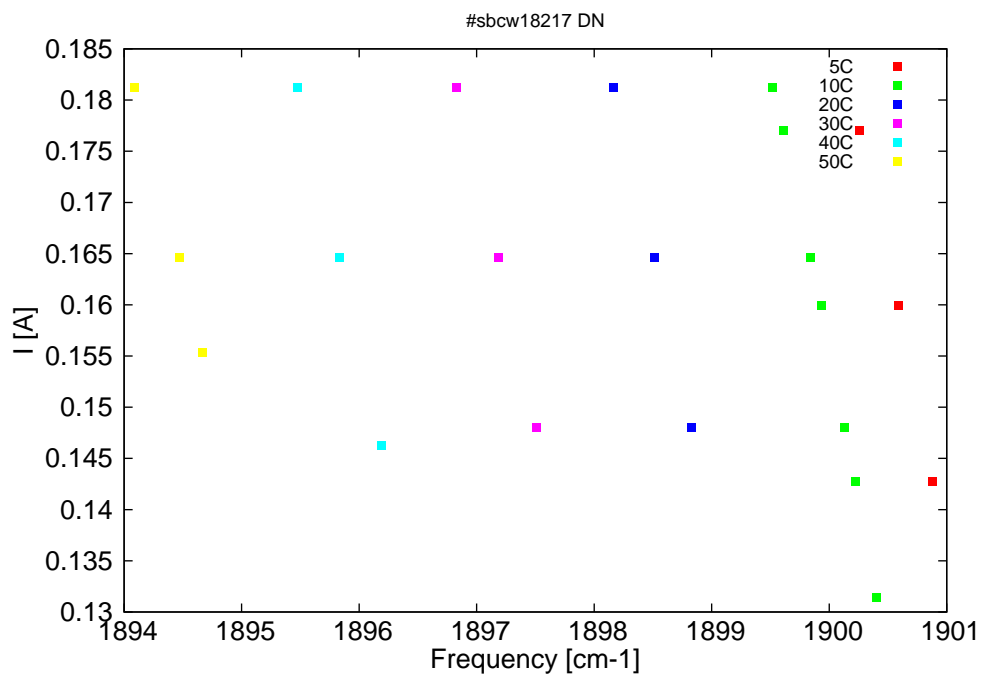


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [ $\text{cm}^{-1}$ ]	P[mW]	Temp[ $^{\circ}\text{C}$ ]	$U_{LASER}$ [V]	I[A]
5260.7	1900.9	19.6	5	8.09	0.143
5261.5	1900.6	39.6	5	8.3	0.16
5262.4	1900.3	56	5	8.54	0.177
5262	1900.4	3.5	10	7.93	0.131
5262.5	1900.2	16.3	10	8.08	0.143
5262.8	1900.1	22.2	10	8.14	0.148
5263.3	1899.9	35.5	10	8.29	0.16
5263.6	1899.8	40.5	10	8.36	0.165
5264.2	1899.6	51.7	10	8.53	0.177
5264.5	1899.5	55.1	10	8.59	0.181
5266.4	1898.8	14	20	8.12	0.148
5267.3	1898.5	30.9	20	8.34	0.165
5268.2	1898.2	45.1	20	8.57	0.181
5270.1	1897.5	5.7	30	8.1	0.148
5271	1897.2	21.6	30	8.32	0.165
5272	1896.8	34.8	30	8.55	0.181
5273.7	1896.2	0	40	8.06	0.146
5274.7	1895.8	12.2	40	8.3	0.165
5275.7	1895.5	25	40	8.54	0.181
5278	1894.7	0	50	8.16	0.155
5278.5	1894.5	4.3	50	8.29	0.165
5279.6	1894.1	16.1	50	8.52	0.181

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

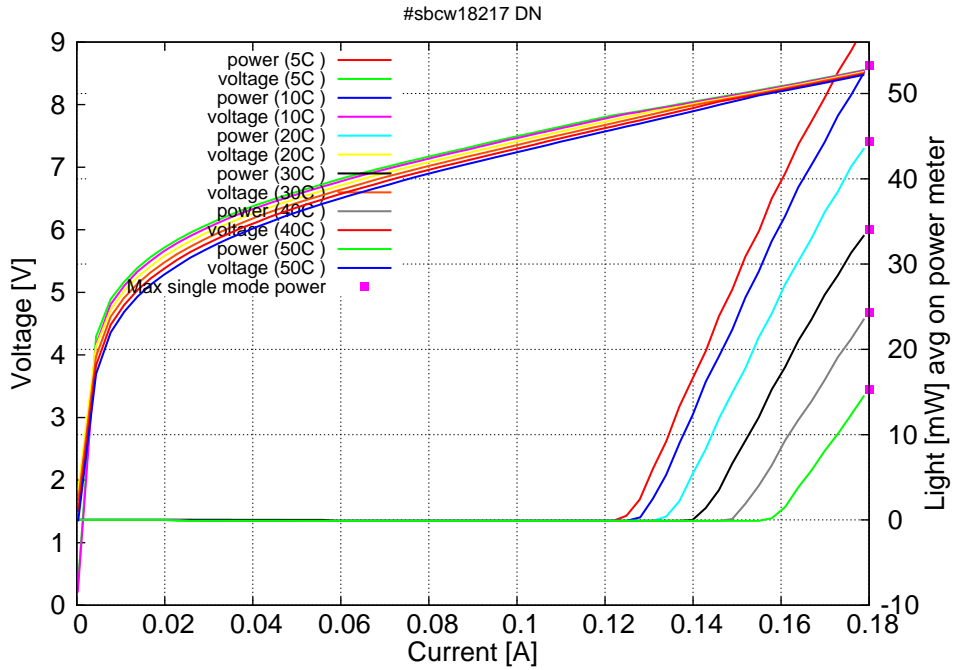


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at 5C:  $I_{th}=0.12A$  /  $V_{th}=7.9V$  (2-wires measurements). Maximum operation current: 0.18A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

