

**Datasheet for #sbcw19211 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 #sbcw19211 DN

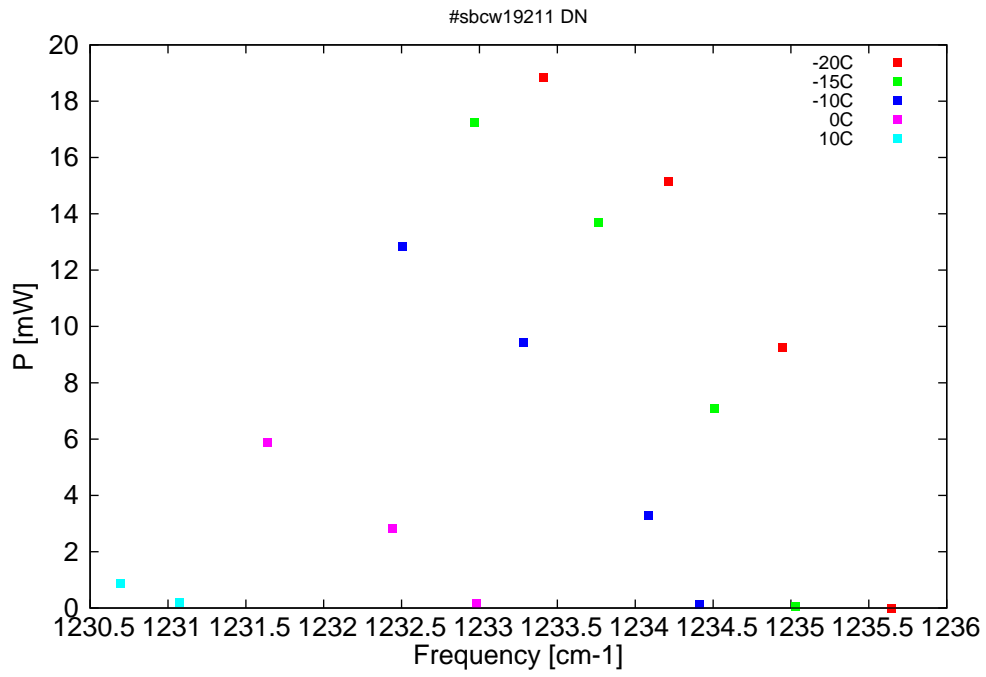


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

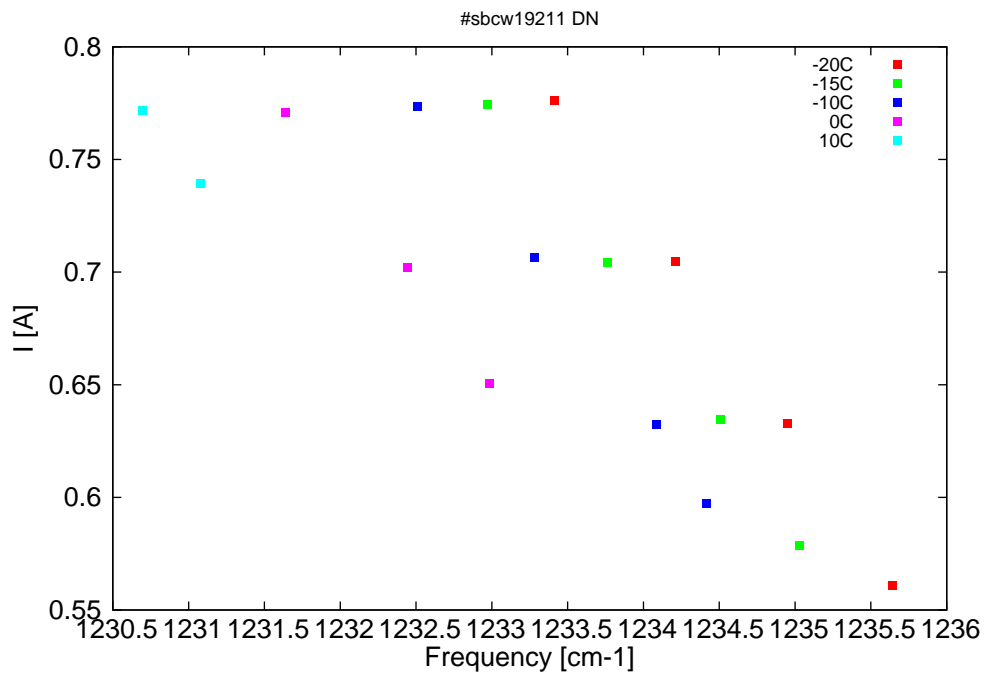


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
8093	1235.6	0	-20	8.62	0.561
8097.5	1234.9	9.3	-20	8.84	0.633
8102.3	1234.2	15.1	-20	9.07	0.705
8107.6	1233.4	18.9	-20	9.3	0.776
8097	1235	0.1	-15	8.63	0.579
8100.4	1234.5	7.1	-15	8.8	0.635
8105.3	1233.8	13.7	-15	9.03	0.704
8110.5	1233	17.2	-15	9.26	0.774
8101	1234.4	0.1	-10	8.63	0.597
8103.2	1234.1	3.3	-10	8.65	0.632
8108.4	1233.3	9.4	-10	8.99	0.707
8113.5	1232.5	12.8	-10	9.22	0.774
8110.4	1233	0.2	0	8.62	0.651
8114	1232.4	2.8	0	8.79	0.702
8119.3	1231.6	5.9	0	9.02	0.771
8123	1231.1	0.2	10	8.84	0.739
8125.5	1230.7	0.9	10	8.95	0.772

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

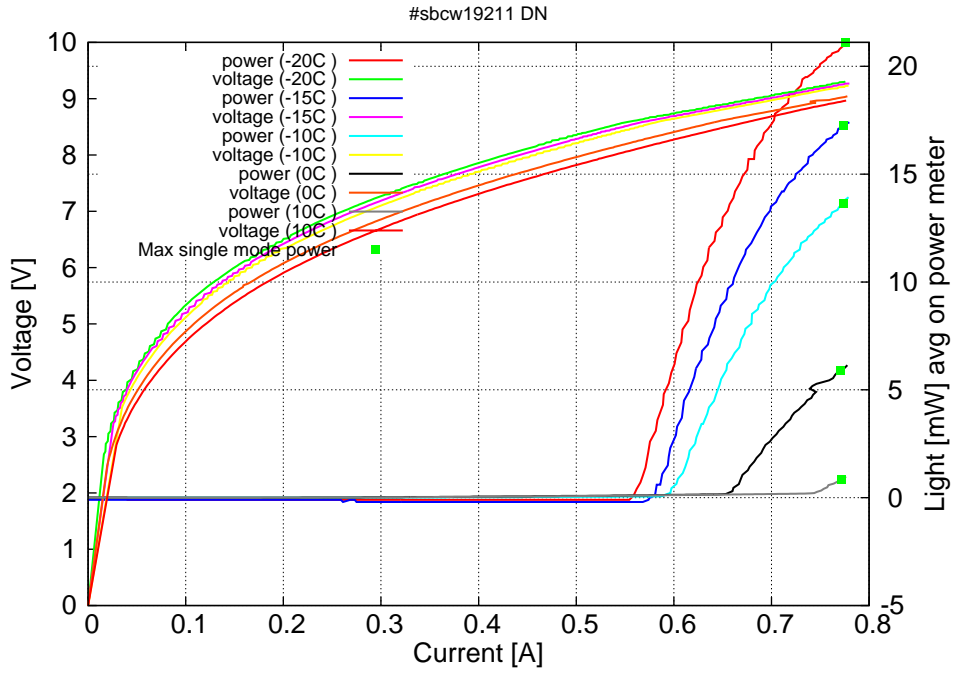


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.55A$  /  $V_{th}=8.6V$  (2-wires measurements). Maximum operation current: 0.78A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

