

**Datasheet for #sbcw19832 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 #sbcw19832 DN (please note that AlN submount numbering is A0P5N)

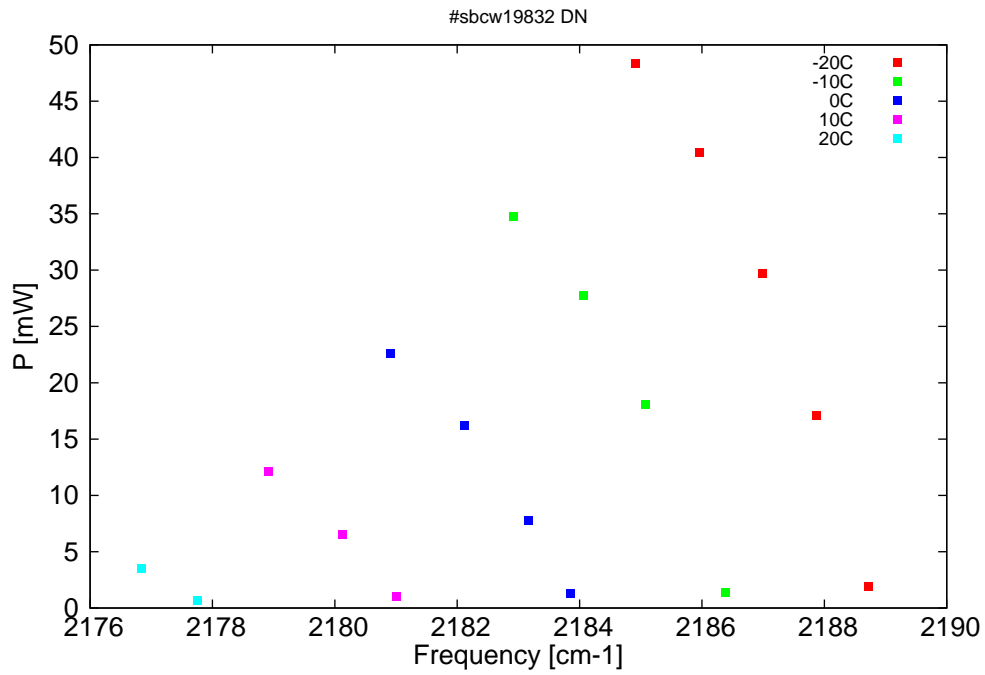


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

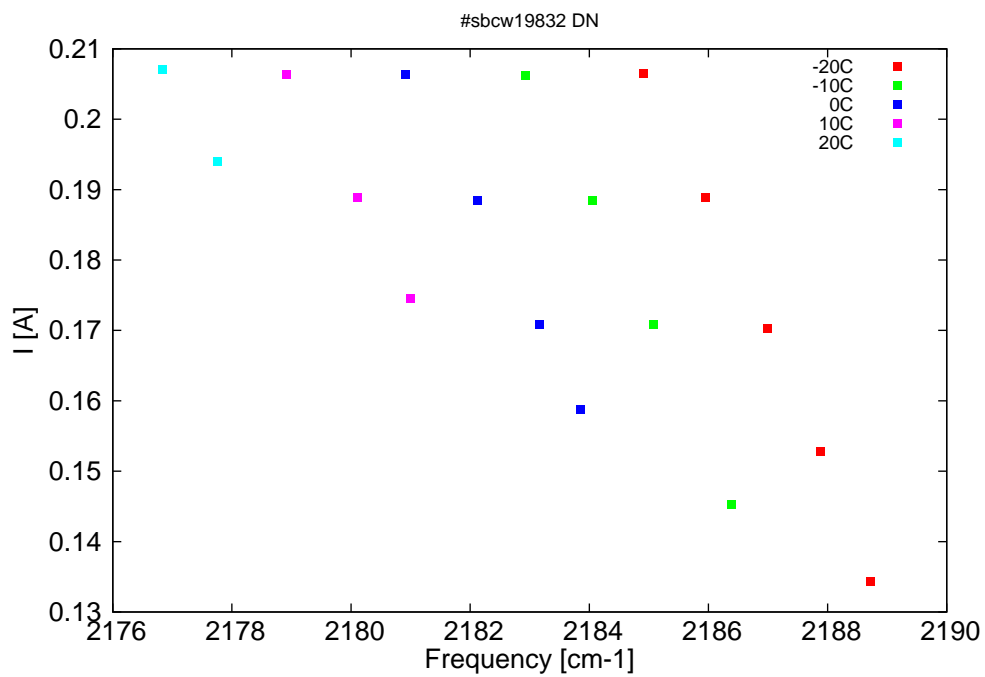


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4568.9	2188.7	1.9	-20	8.9	0.134
4570.6	2187.9	17.1	-20	9.09	0.153
4572.5	2187	29.7	-20	9.29	0.17
4574.7	2186	40.4	-20	9.49	0.189
4576.8	2184.9	48.4	-20	9.69	0.206
4573.7	2186.4	1.3	-10	8.97	0.145
4576.5	2185.1	18.1	-10	9.25	0.171
4578.6	2184.1	27.7	-10	9.45	0.188
4581	2182.9	34.8	-10	9.65	0.206
4579.1	2183.8	1.3	0	9.08	0.159
4580.5	2183.2	7.8	0	9.21	0.171
4582.7	2182.1	16.2	0	9.41	0.188
4585.2	2180.9	22.6	0	9.63	0.206
4585	2181	1.1	10	9.23	0.175
4586.9	2180.1	6.6	10	9.39	0.189
4589.4	2178.9	12.1	10	9.6	0.206
4591.9	2177.8	0.6	20	9.43	0.194
4593.8	2176.8	3.6	20	9.59	0.207

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

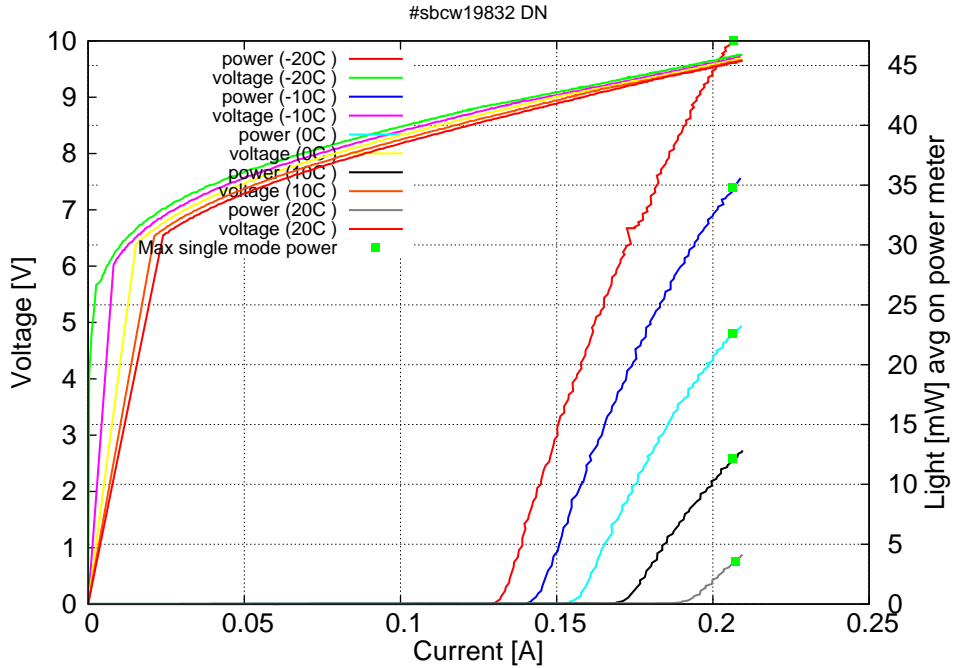


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.13A$  /  $V_{th}=8.8V$  (2-wires measurements). Maximum operation current: 0.21A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

