

**Datasheet for #sbcw20069 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 #sbcw20069 DN

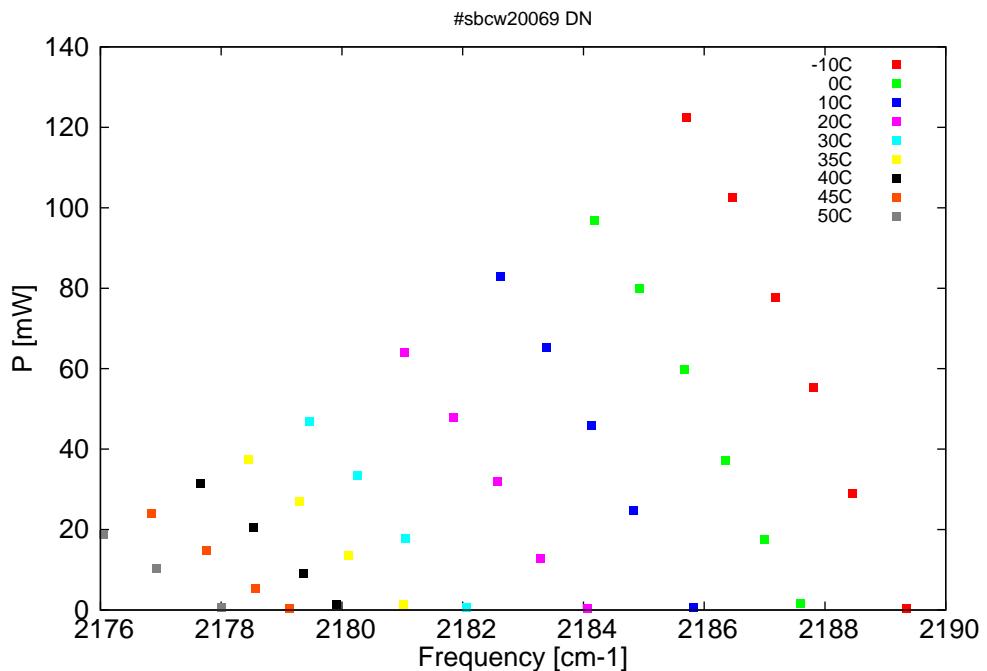


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

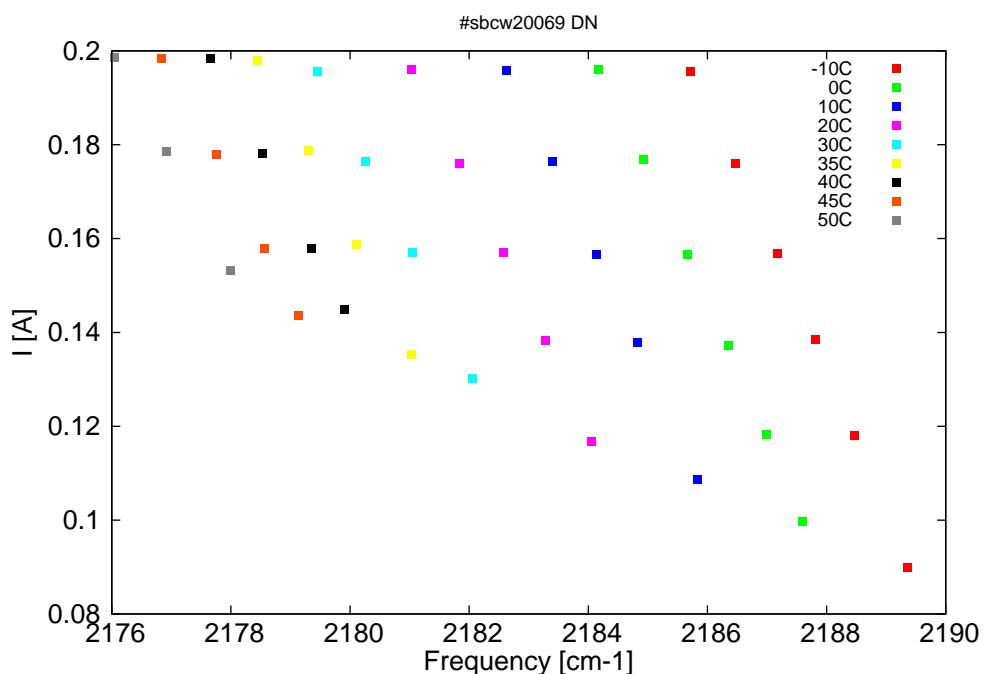


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm $^{-1}$ ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4567.6	2189.4	0.4	-10	12.26	0.09
4569.4	2188.5	29.1	-10	12.61	0.118
4570.8	2187.8	55.2	-10	12.86	0.138
4572.1	2187.2	77.7	-10	13.1	0.157
4573.6	2186.5	102.4	-10	13.34	0.176
4575.2	2185.7	122.5	-10	13.57	0.196
4571.2	2187.6	1.7	0	12.29	0.1
4572.5	2187	17.5	0	12.51	0.118
4573.8	2186.4	37.2	0	12.74	0.137
4575.3	2185.7	59.9	0	12.98	0.157
4576.8	2184.9	80	0	13.22	0.177
4578.4	2184.2	96.9	0	13.46	0.196
4574.9	2185.8	0.6	10	12.32	0.109
4577	2184.8	24.8	10	12.65	0.138
4578.5	2184.1	45.9	10	12.88	0.157
4580	2183.4	65.4	10	13.11	0.176
4581.6	2182.6	82.8	10	13.33	0.196
4578.6	2184.1	0.4	20	12.33	0.117
4580.2	2183.3	12.9	20	12.56	0.138
4581.7	2182.6	31.8	20	12.78	0.157
4583.3	2181.8	48	20	13	0.176
4585	2181	63.9	20	13.23	0.196
4582.8	2182.1	0.6	30	12.4	0.13
4585	2181	17.8	30	12.68	0.157
4586.6	2180.3	33.3	30	12.9	0.176
4588.3	2179.5	46.9	30	13.12	0.196
4585	2181	1.3	35	12.45	0.135
4586.9	2180.1	13.6	35	12.69	0.159
4588.6	2179.3	26.9	35	12.9	0.179
4590.4	2178.5	37.4	35	13.12	0.198
4587.4	2179.9	1.5	40	12.5	0.145
4588.5	2179.4	9.1	40	12.64	0.158
4590.2	2178.5	20.6	40	12.85	0.178
4592.1	2177.7	31.4	40	13.07	0.198
4589	2179.1	0.3	45	12.47	0.144
4590.2	2178.6	5.3	45	12.6	0.158
4591.9	2177.8	14.8	45	12.8	0.178
4593.8	2176.8	24	45	13.02	0.198
4591.4	2178	0.6	50	12.52	0.153
4593.6	2176.9	10.2	50	12.76	0.179
4595.5	2176	18.8	50	12.97	0.199

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

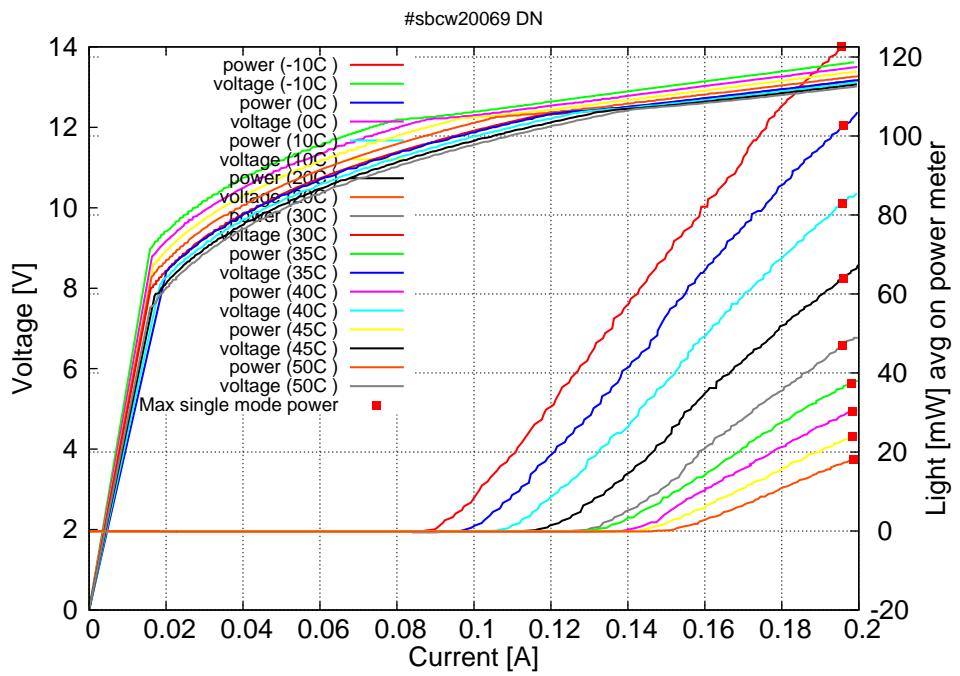


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C:  $I_{th}=0.09A$  /  $V_{th}=12.3V$  (2-wires measurements). Maximum operation current: 0.20A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

