

**Datasheet for #sbcw21073 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 #sbcw21073 DN

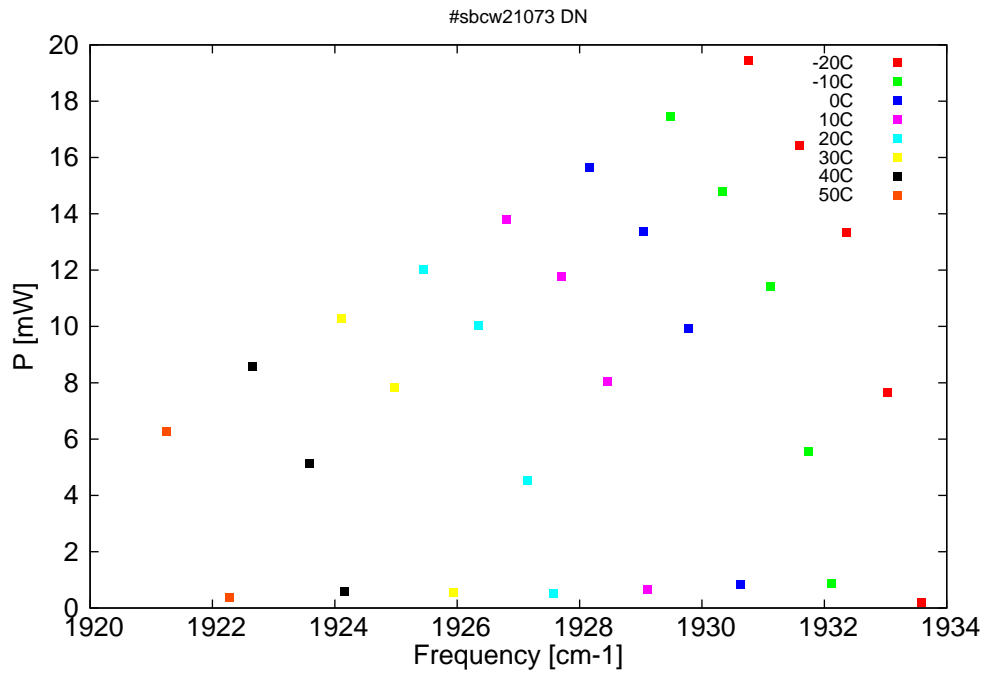


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

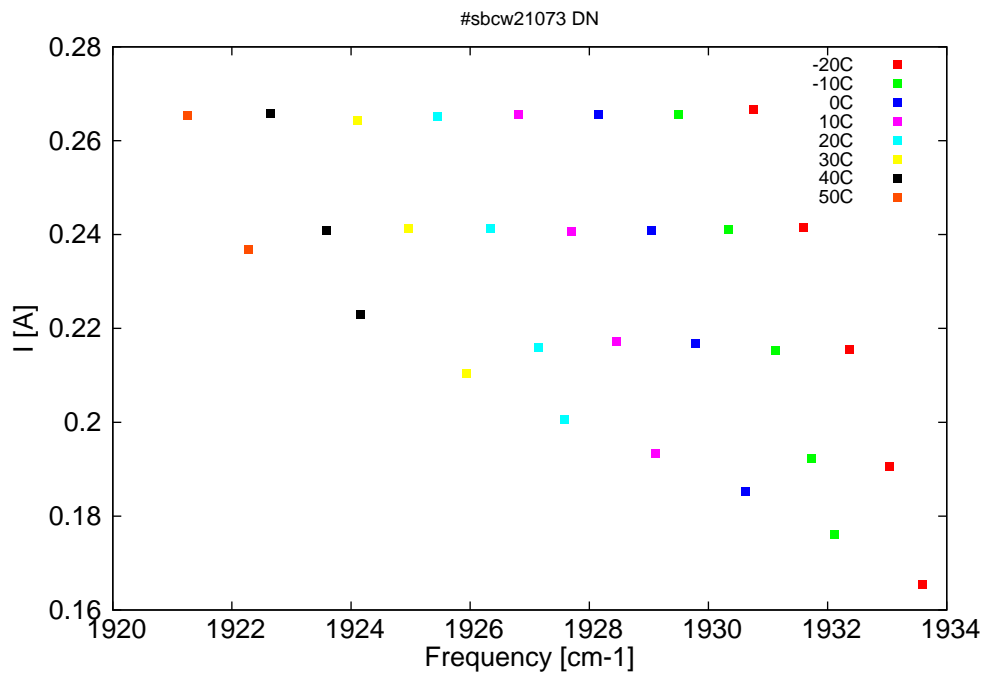


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5171.7	1933.6	0.2	-20	10.73	0.165
5173.2	1933	7.6	-20	10.85	0.191
5175	1932.4	13.3	-20	11	0.216
5177.1	1931.6	16.4	-20	11.22	0.242
5179.3	1930.8	19.4	-20	11.49	0.267
5175.7	1932.1	0.9	-10	10.75	0.176
5176.7	1931.7	5.6	-10	10.83	0.192
5178.3	1931.1	11.4	-10	10.97	0.215
5180.4	1930.3	14.8	-10	11.18	0.241
5182.7	1929.5	17.4	-10	11.44	0.265
5179.7	1930.6	0.8	0	10.77	0.185
5181.9	1929.8	9.9	0	10.95	0.217
5183.9	1929	13.4	0	11.15	0.241
5186.3	1928.2	15.7	0	11.41	0.266
5183.7	1929.1	0.6	10	10.81	0.193
5185.5	1928.5	8	10	10.94	0.217
5187.5	1927.7	11.8	10	11.13	0.241
5189.9	1926.8	13.8	10	11.38	0.266
5187.9	1927.6	0.5	20	10.84	0.201
5189	1927.2	4.5	20	10.93	0.216
5191.2	1926.3	10	20	11.11	0.241
5193.6	1925.5	12	20	11.35	0.265
5192.3	1925.9	0.6	30	10.9	0.21
5194.9	1925	7.8	30	11.1	0.241
5197.2	1924.1	10.3	30	11.32	0.264
5197.1	1924.2	0.6	40	10.99	0.223
5198.6	1923.6	5.1	40	11.1	0.241
5201.1	1922.7	8.6	40	11.32	0.266
5202.1	1922.3	0.4	50	11.11	0.237
5204.9	1921.3	6.3	50	11.32	0.265

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

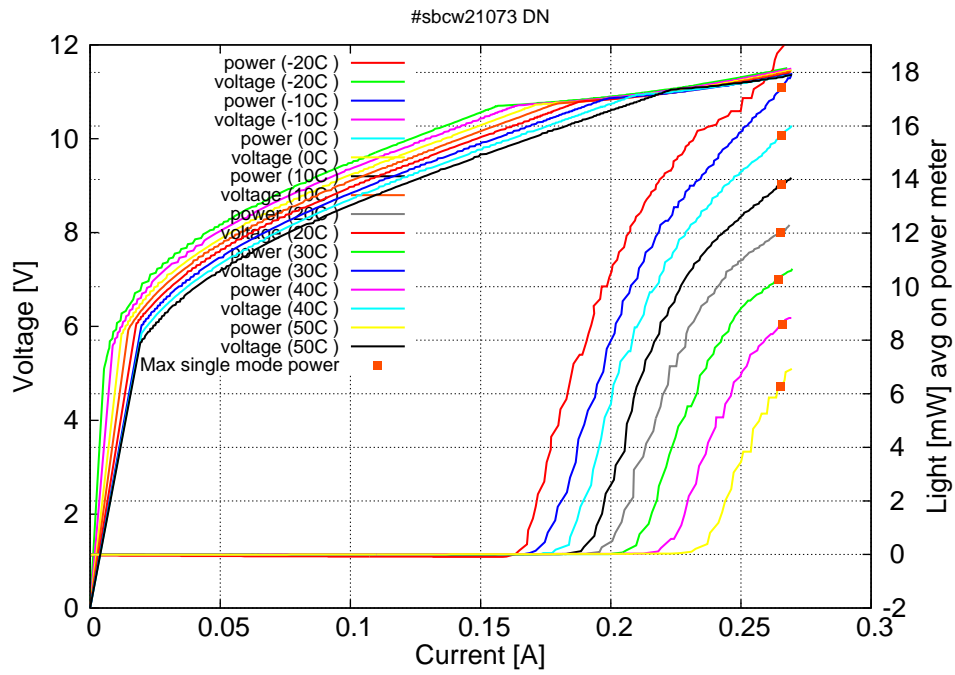


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.16A$  /  $V_{th}=10.7V$  (2-wires measurements). Maximum operation current: 0.270A for all temperatures.

