

Datasheet for #sbcw24686 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 #sbcw24686 DN

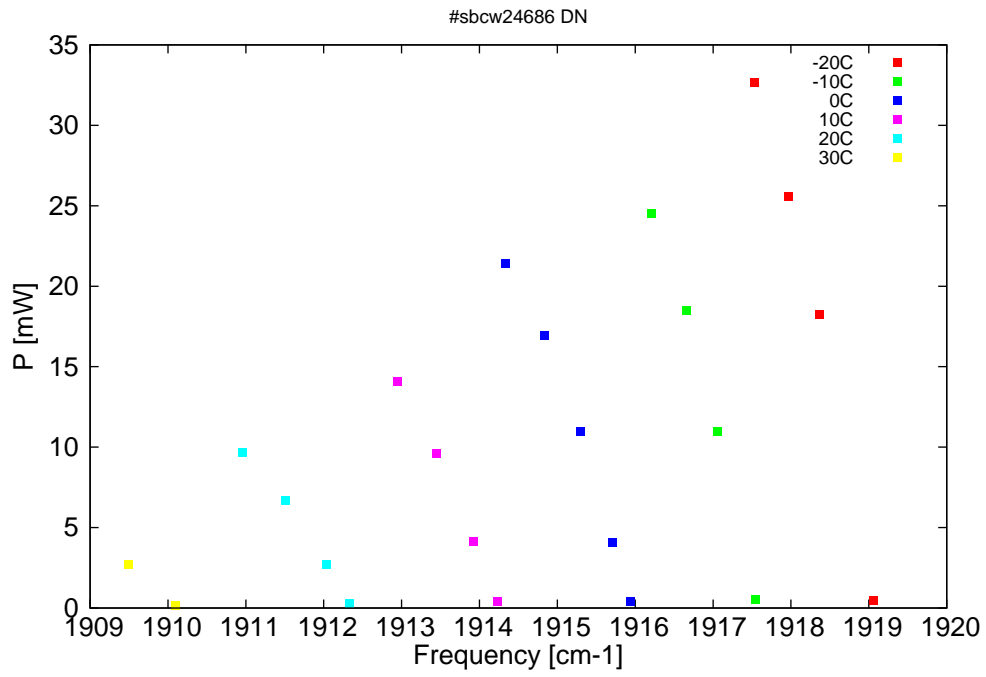


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

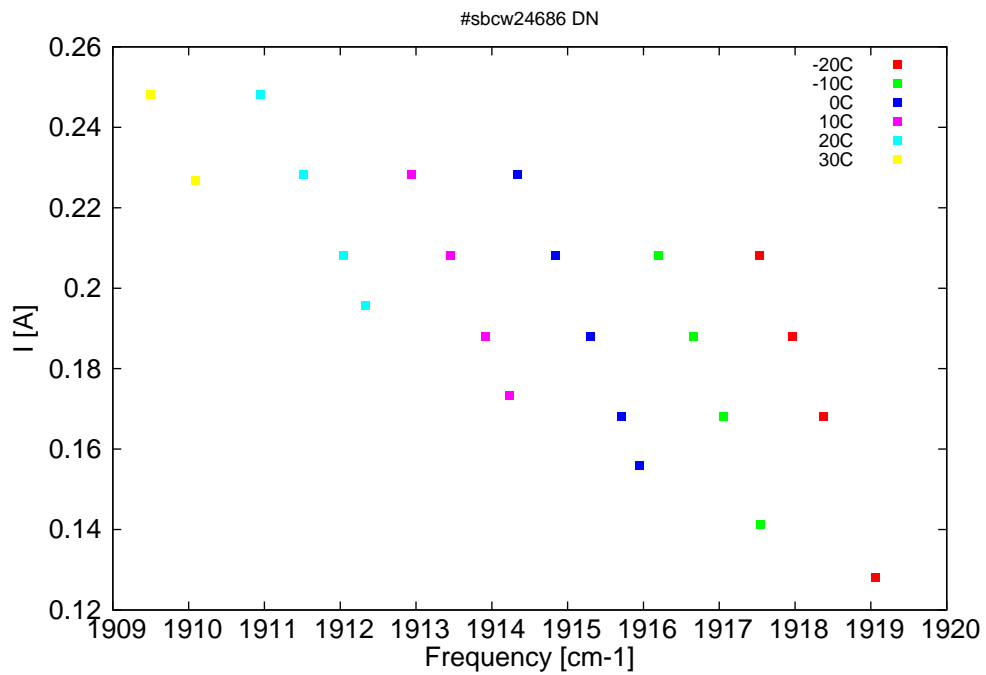


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5210.9	1919.1	0.4	-20	8.26	0.128
5212.8	1918.4	18.2	-20	8.73	0.168
5213.8	1918	25.6	-20	8.98	0.188
5215	1917.5	32.7	-20	9.25	0.208
5215	1917.5	0.5	-10	8.36	0.141
5216.3	1917.1	11	-10	8.68	0.168
5217.4	1916.7	18.5	-10	8.93	0.188
5218.7	1916.2	24.5	-10	9.19	0.208
5219.4	1915.9	0.4	0	8.49	0.156
5220	1915.7	4.1	0	8.63	0.168
5221.1	1915.3	11	0	8.87	0.188
5222.4	1914.8	16.9	0	9.13	0.208
5223.7	1914.3	21.4	0	9.4	0.228
5224	1914.2	0.4	10	8.66	0.173
5224.9	1913.9	4.1	10	8.82	0.188
5226.2	1913.4	9.6	10	9.07	0.208
5227.5	1912.9	14.1	10	9.33	0.228
5229.2	1912.3	0.3	20	8.87	0.196
5230	1912	2.7	20	9.02	0.208
5231.5	1911.5	6.7	20	9.27	0.228
5233	1911	9.7	20	9.53	0.248
5235.3	1910.1	0.2	30	9.21	0.227
5237	1909.5	2.7	30	9.47	0.248

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

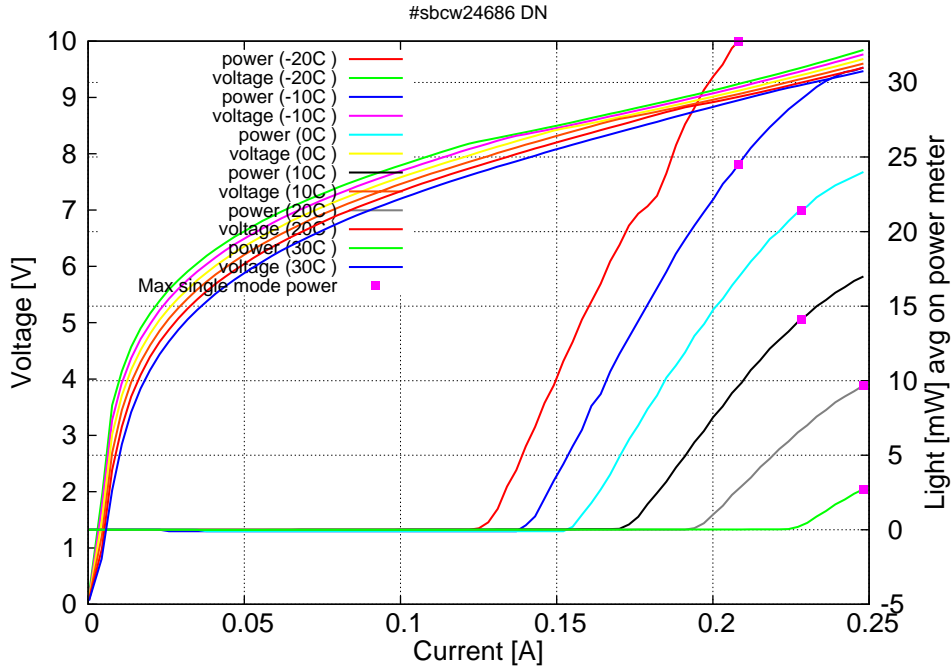


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=8.2V$ (2-wires measurements). Maximum operation current: 0.21A between -20C and -10C, 0.23A between 0C and 10C, 0.25A between 20C and 30C.

Figure 3: spectra at different temperatures for various DC currents

