

**Datasheet for #sbcw24687 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 #sbcw24687 DN

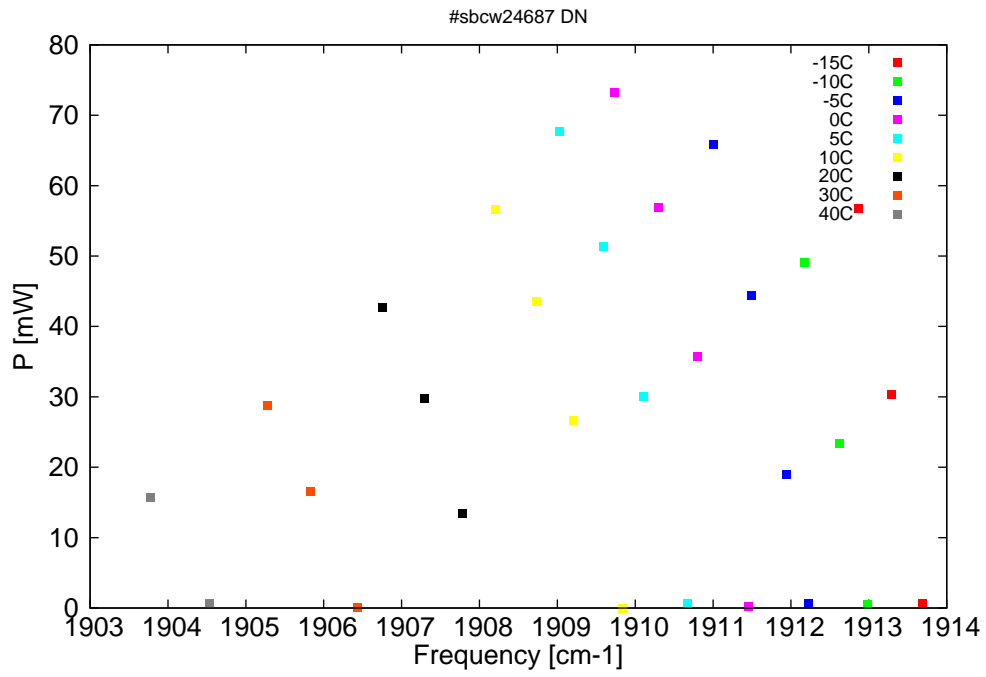


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

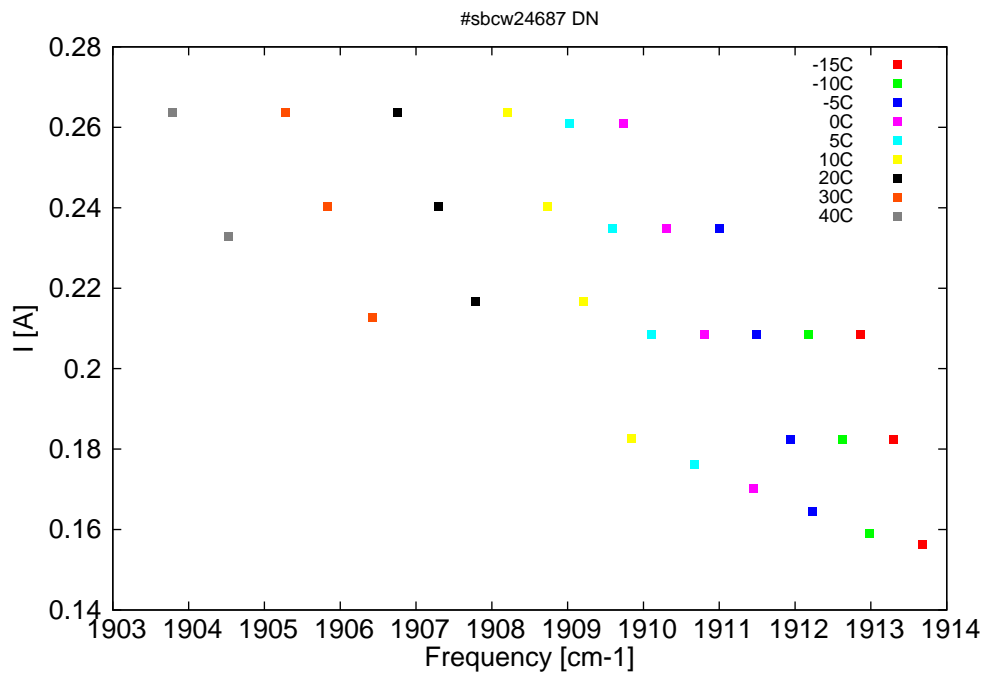


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5225.5	1913.7	0.7	-15	7.82	0.156
5226.6	1913.3	30.3	-15	7.98	0.182
5227.8	1912.9	56.8	-15	8.16	0.209
5227.5	1913	0.5	-10	7.81	0.159
5228.4	1912.6	23.4	-10	7.96	0.182
5229.6	1912.2	49	-10	8.14	0.209
5229.5	1912.2	0.6	-5	7.83	0.164
5230.3	1911.9	19	-5	7.95	0.182
5231.5	1911.5	44.4	-5	8.13	0.209
5232.8	1911	65.9	-5	8.31	0.235
5231.6	1911.5	0.2	0	7.85	0.17
5233.4	1910.8	35.8	0	8.11	0.209
5234.8	1910.3	56.9	0	8.3	0.235
5236.3	1909.7	73.2	0	8.49	0.261
5233.8	1910.7	0.6	5	7.88	0.176
5235.3	1910.1	30	5	8.1	0.209
5236.7	1909.6	51.3	5	8.28	0.235
5238.3	1909	67.7	5	8.48	0.261
5236	1909.8	0	10	7.88	0.183
5237.8	1909.2	26.6	10	8.12	0.217
5239.1	1908.7	43.5	10	8.28	0.24
5240.5	1908.2	56.7	10	8.46	0.264
5241.7	1907.8	13.4	20	8.08	0.217
5243	1907.3	29.8	20	8.25	0.24
5244.5	1906.7	42.7	20	8.43	0.264
5245.4	1906.4	0.1	30	8.02	0.213
5247.1	1905.8	16.5	30	8.22	0.24
5248.6	1905.3	28.8	30	8.39	0.264
5250.6	1904.5	0.6	40	8.13	0.233
5252.7	1903.8	15.8	40	8.36	0.264

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

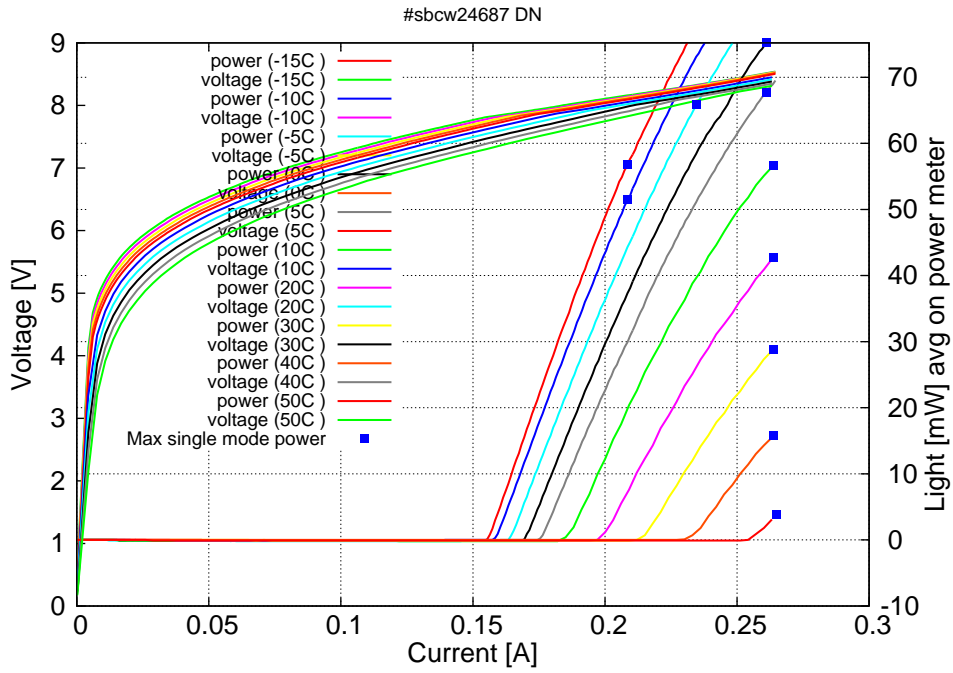


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -15C:  $I_{th}=0.15A$  /  $V_{th}=7.8V$  (2-wires measurements). Maximum operation current: 0.21A between -15C and -10C, 0.235A at -5C, 0.265A between 0C and 50C.

Figure 3: spectra at different temperatures for various DC currents

