

Datasheet for #sbcw26822 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

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.

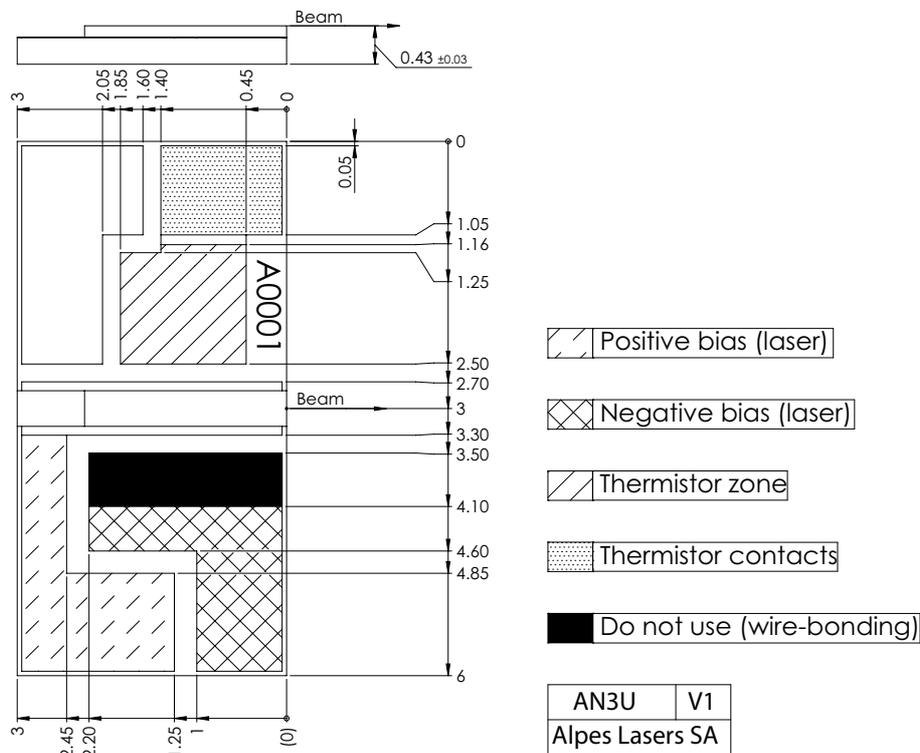


Figure 1: Mechanical and electrical interface for #sbcw26822 DN (please note that AlN submount numbering is A0VTL)

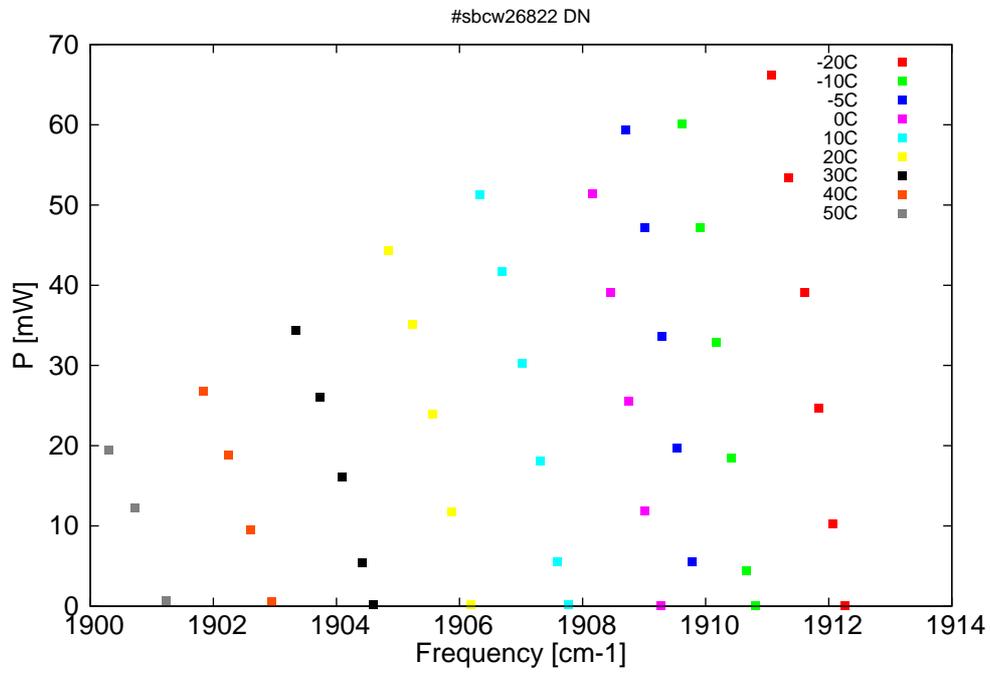


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

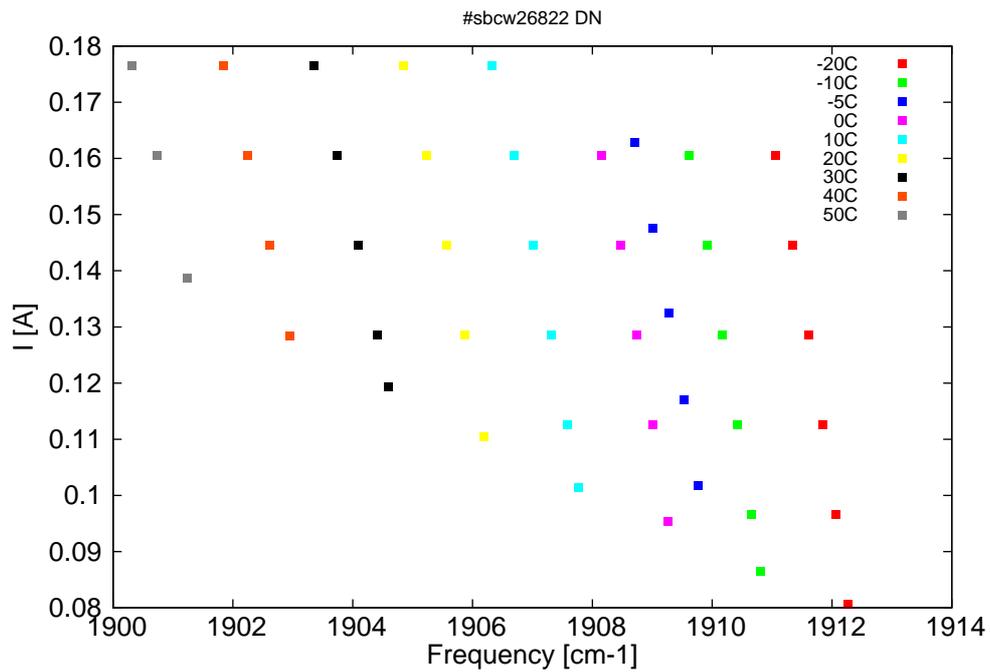


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5229.4	1912.3	0.1	-20	7.53	0.081
5229.9	1912.1	10.2	-20	7.73	0.097
5230.6	1911.8	24.6	-20	7.93	0.113
5231.2	1911.6	39.1	-20	8.14	0.129
5231.9	1911.3	53.4	-20	8.35	0.145
5232.7	1911.1	66.2	-20	8.58	0.161
5233.4	1910.8	0	-10	7.57	0.086
5233.8	1910.7	4.5	-10	7.69	0.097
5234.4	1910.4	18.5	-10	7.9	0.113
5235.1	1910.2	32.8	-10	8.11	0.129
5235.9	1909.9	47.2	-10	8.33	0.145
5236.7	1909.6	60.1	-10	8.56	0.161
5236.2	1909.8	5.6	-5	7.75	0.102
5236.9	1909.5	19.7	-5	7.95	0.117
5237.6	1909.3	33.6	-5	8.16	0.132
5238.3	1909	47.1	-5	8.37	0.148
5239.1	1908.7	59.4	-5	8.6	0.163
5237.6	1909.3	0.1	0	7.65	0.095
5238.3	1909	11.8	0	7.87	0.113
5239	1908.7	25.5	0	8.08	0.129
5239.8	1908.5	39.1	0	8.3	0.145
5240.7	1908.2	51.4	0	8.54	0.161
5241.7	1907.8	0.1	10	7.71	0.101
5242.2	1907.6	5.5	10	7.85	0.113
5243	1907.3	18.1	10	8.07	0.129
5243.8	1907	30.3	10	8.3	0.145
5244.7	1906.7	41.7	10	8.53	0.161
5245.7	1906.3	51.3	10	8.8	0.177
5246.1	1906.2	0.2	20	7.82	0.11
5246.9	1905.9	11.7	20	8.08	0.129
5247.8	1905.6	23.9	20	8.31	0.145
5248.7	1905.2	35.1	20	8.55	0.161
5249.8	1904.8	44.3	20	8.82	0.177
5250.5	1904.6	0.3	30	7.89	0.119
5251	1904.4	5.4	30	8.02	0.129
5251.8	1904.1	16.1	30	8.25	0.145
5252.8	1903.7	26.1	30	8.49	0.161
5253.9	1903.3	34.4	30	8.76	0.177
5255	1903	0.5	40	8.01	0.128
5255.9	1902.6	9.5	40	8.24	0.145
5257	1902.2	18.9	40	8.48	0.161
5258.1	1901.8	26.8	40	8.75	0.177
5259.7	1901.2	0.7	50	8.16	0.139
5261.1	1900.7	12.2	50	8.49	0.161
5262.3	1900.3	19.5	50	8.76	0.177

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

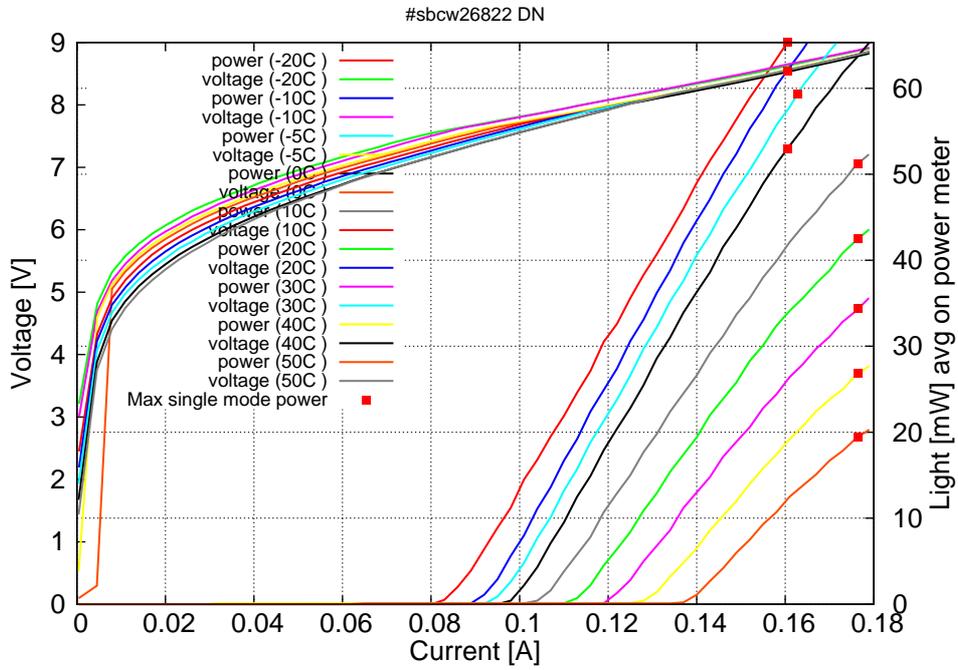


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=7.6V$ (2-wires measurements). Maximum operation current: 0.163A between -20C and 0C, 0.18C between 10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

