

Datasheet for #sbcw26811 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.

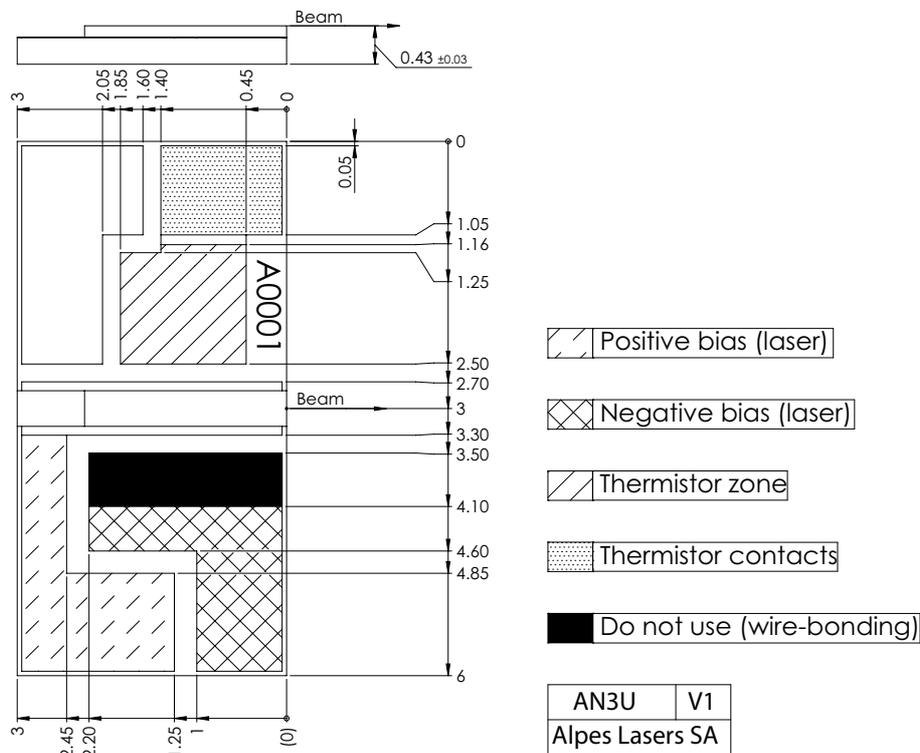


Figure 1: Mechanical and electrical interface for #sbcw26811 DN (please note that AlN submount numbering is A0WFX)

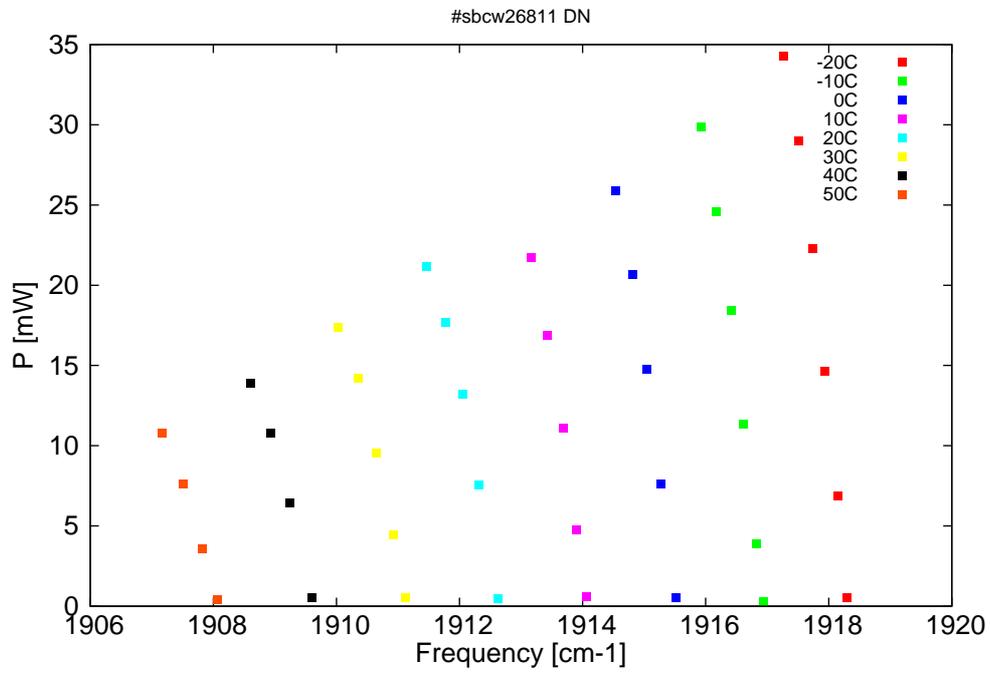


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

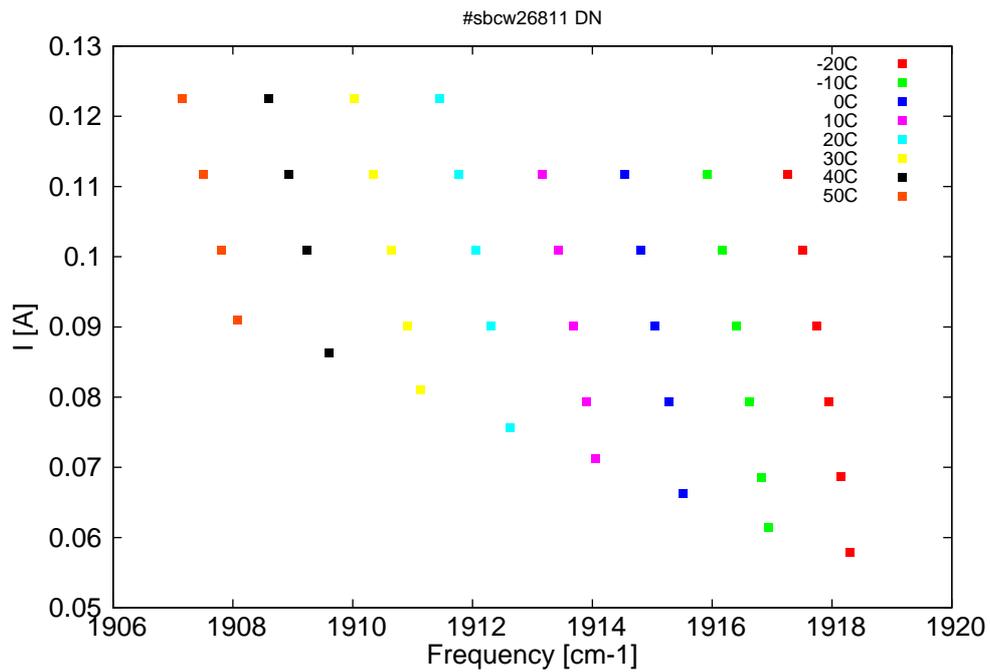


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5212.9	1918.3	0.5	-20	7.63	0.058
5213.4	1918.1	6.9	-20	7.82	0.069
5213.9	1917.9	14.7	-20	8.02	0.079
5214.5	1917.7	22.3	-20	8.23	0.09
5215.1	1917.5	29	-20	8.46	0.101
5215.8	1917.3	34.3	-20	8.71	0.112
5216.7	1916.9	0.3	-10	7.66	0.061
5217	1916.8	3.9	-10	7.79	0.069
5217.5	1916.6	11.3	-10	7.99	0.079
5218.1	1916.4	18.4	-10	8.2	0.09
5218.7	1916.2	24.6	-10	8.43	0.101
5219.4	1915.9	29.9	-10	8.68	0.112
5220.5	1915.5	0.6	0	7.71	0.066
5221.2	1915.3	7.6	0	7.96	0.079
5221.8	1915	14.7	0	8.17	0.09
5222.5	1914.8	20.7	0	8.4	0.101
5223.2	1914.5	25.9	0	8.65	0.112
5224.5	1914.1	0.6	10	7.77	0.071
5224.9	1913.9	4.7	10	7.93	0.079
5225.5	1913.7	11.1	10	8.14	0.09
5226.2	1913.4	16.9	10	8.37	0.101
5227	1913.2	21.7	10	8.62	0.112
5228.4	1912.6	0.5	20	7.83	0.076
5229.3	1912.3	7.6	20	8.12	0.09
5230	1912.1	13.2	20	8.34	0.101
5230.8	1911.8	17.7	20	8.59	0.112
5231.6	1911.5	21.1	20	8.86	0.123
5232.5	1911.1	0.5	30	7.9	0.081
5233.1	1910.9	4.5	30	8.09	0.09
5233.8	1910.6	9.5	30	8.32	0.101
5234.6	1910.4	14.2	30	8.56	0.112
5235.5	1910	17.4	30	8.83	0.123
5236.7	1909.6	0.5	40	7.98	0.086
5237.7	1909.2	6.4	40	8.29	0.101
5238.5	1908.9	10.8	40	8.53	0.112
5239.4	1908.6	13.9	40	8.8	0.123
5240.9	1908.1	0.4	50	8.05	0.091
5241.6	1907.8	3.6	50	8.26	0.101
5242.4	1907.5	7.6	50	8.5	0.112
5243.4	1907.2	10.8	50	8.76	0.123

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

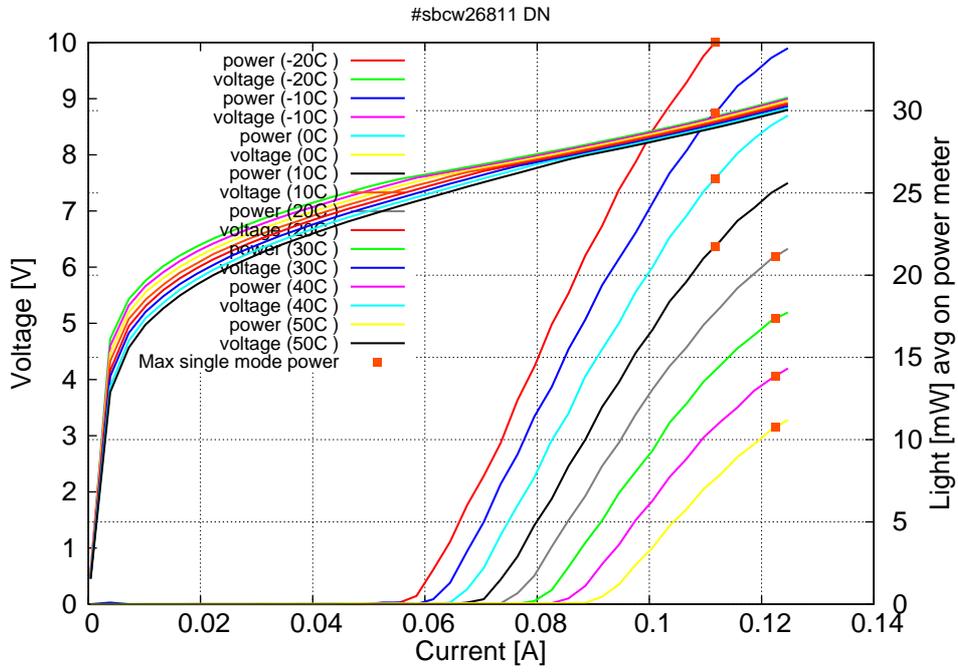


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=7.6V$ (2-wires measurements). Maximum operation current: 0.115A between -20C and 10C, 0.125A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

