

Datasheet for #sbcw26805 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.

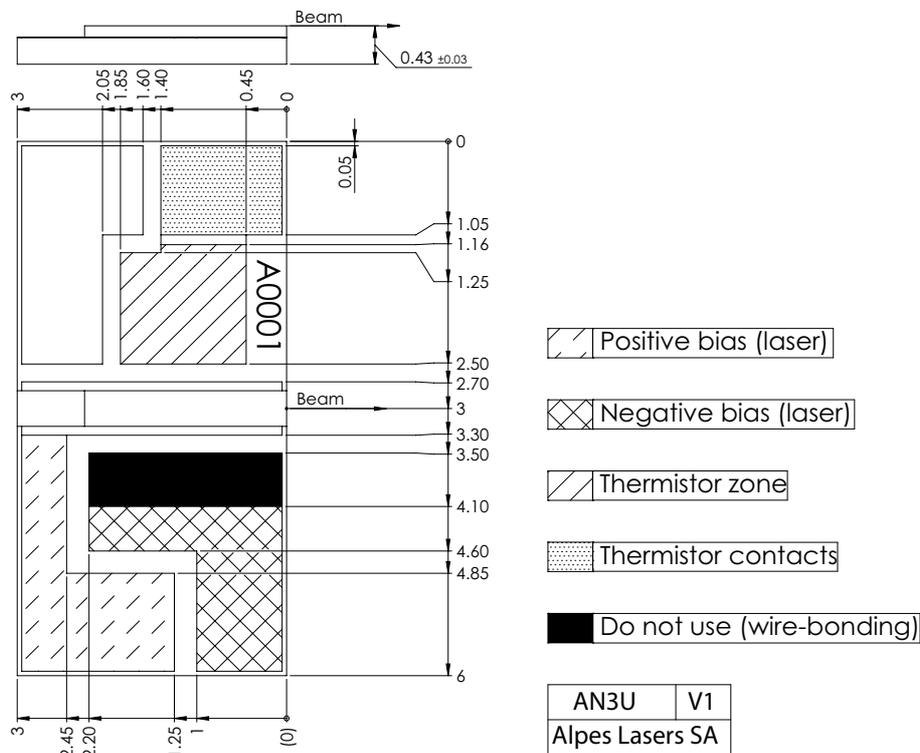


Figure 1: Mechanical and electrical interface for #sbcw26805 DN (please note that AlN submount numbering is A0UVL)

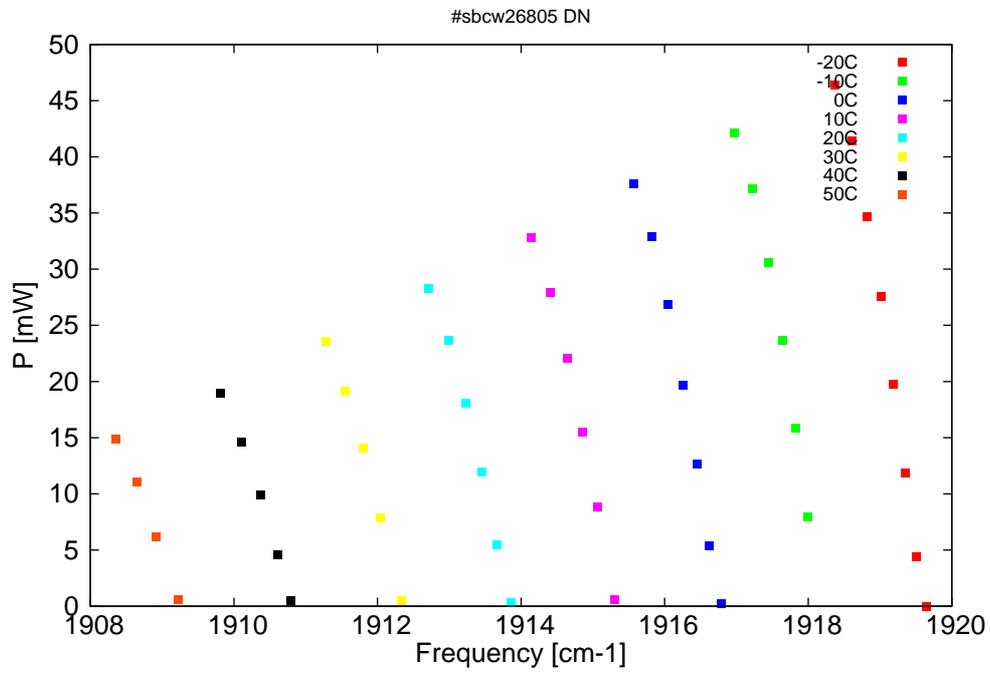


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

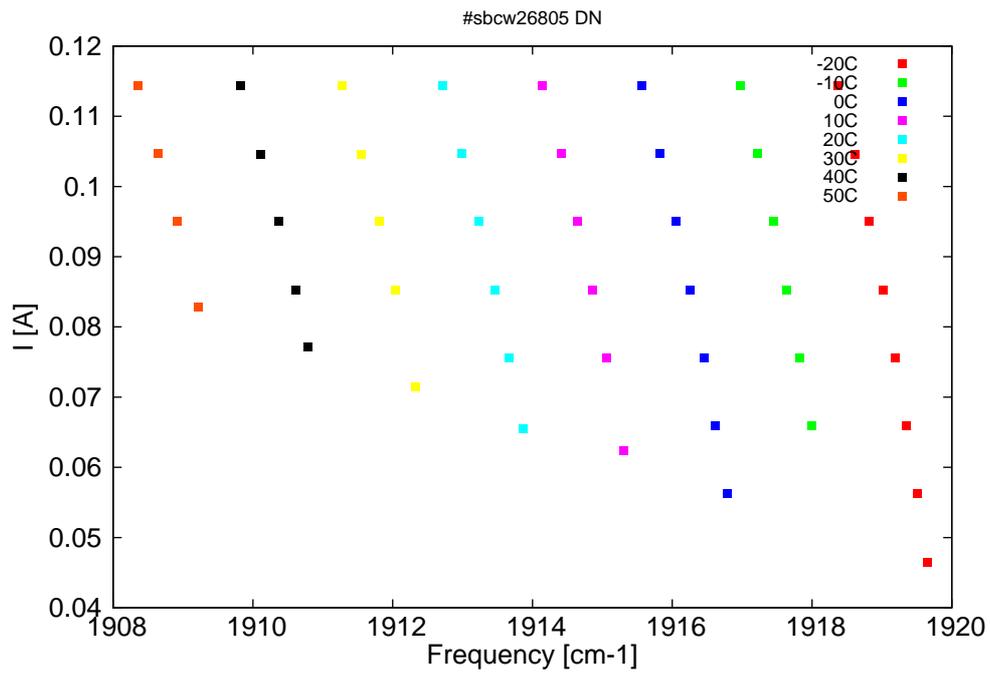


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5209.3	1919.7	0	-20	7.53	0.047
5209.7	1919.5	4.4	-20	7.72	0.056
5210.1	1919.4	11.9	-20	7.91	0.066
5210.5	1919.2	19.8	-20	8.1	0.076
5211	1919	27.6	-20	8.3	0.085
5211.5	1918.8	34.7	-20	8.51	0.095
5212.1	1918.6	41.4	-20	8.75	0.105
5212.8	1918.4	46.4	-20	9	0.114
5213.8	1918	7.9	-10	7.87	0.066
5214.2	1917.8	15.8	-10	8.07	0.076
5214.7	1917.6	23.6	-10	8.27	0.085
5215.3	1917.4	30.6	-10	8.48	0.095
5215.9	1917.2	37.2	-10	8.72	0.105
5216.6	1917	42.2	-10	8.98	0.114
5217.1	1916.8	0.2	0	7.65	0.056
5217.5	1916.6	5.4	0	7.84	0.066
5218	1916.5	12.6	0	8.04	0.076
5218.5	1916.3	19.7	0	8.24	0.085
5219.1	1916.1	26.9	0	8.46	0.095
5219.7	1915.8	32.9	0	8.69	0.105
5220.4	1915.6	37.6	0	8.95	0.114
5221.1	1915.3	0.5	10	7.75	0.062
5221.8	1915.1	8.8	10	8.02	0.076
5222.3	1914.9	15.5	10	8.22	0.085
5222.9	1914.6	22.1	10	8.44	0.095
5223.5	1914.4	27.9	10	8.67	0.105
5224.3	1914.1	32.8	10	8.93	0.114
5225	1913.9	0.3	20	7.79	0.066
5225.6	1913.7	5.4	20	8.01	0.076
5226.1	1913.5	11.9	20	8.21	0.085
5226.8	1913.2	18.1	20	8.43	0.095
5227.4	1913	23.6	20	8.67	0.105
5228.2	1912.7	28.3	20	8.93	0.114
5229.2	1912.3	0.5	30	7.89	0.071
5230	1912	7.9	30	8.19	0.085
5230.7	1911.8	14	30	8.41	0.095
5231.3	1911.6	19.2	30	8.66	0.105
5232.1	1911.3	23.6	30	8.91	0.114
5233.4	1910.8	0.5	40	8.01	0.077
5233.9	1910.6	4.5	40	8.19	0.085
5234.6	1910.4	9.9	40	8.41	0.095
5235.3	1910.1	14.6	40	8.66	0.105
5236.1	1909.8	19	40	8.91	0.114
5237.7	1909.2	0.5	50	8.11	0.083
5238.6	1908.9	6.2	50	8.38	0.095
5239.3	1908.6	11	50	8.63	0.105
5240.1	1908.4	14.9	50	8.88	0.114

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λ [nm] ν [cm⁻¹] P[mW] Temp[°C] U_{LASER}[V] I[A]

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

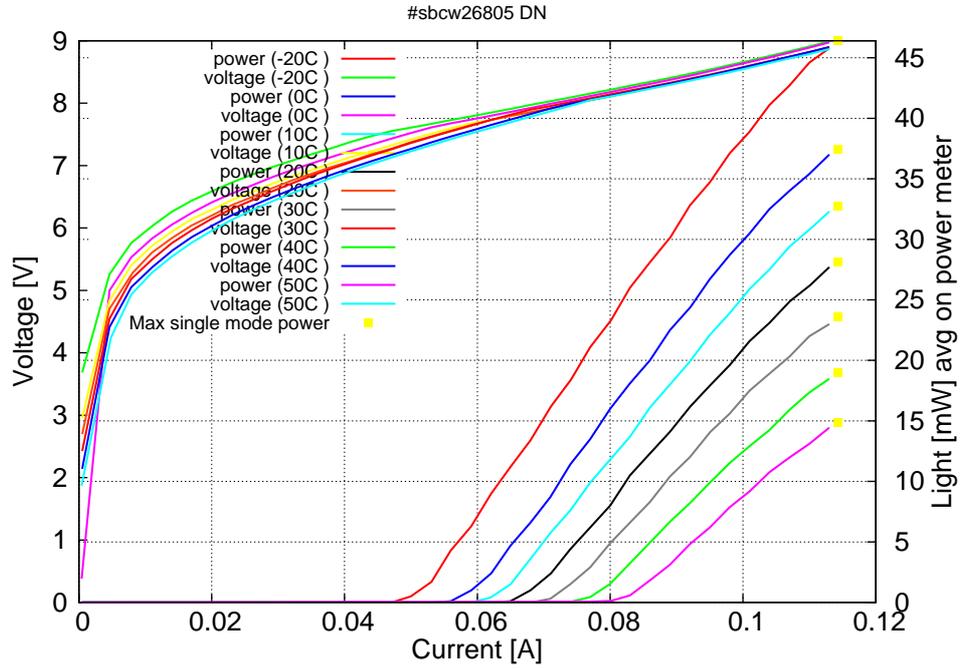


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: I_{th}=0.05A / V_{th}=7.6V (2-wires measurements). Maximum operation current: 0.115A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

