

Datasheet for #sbcw26831 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.

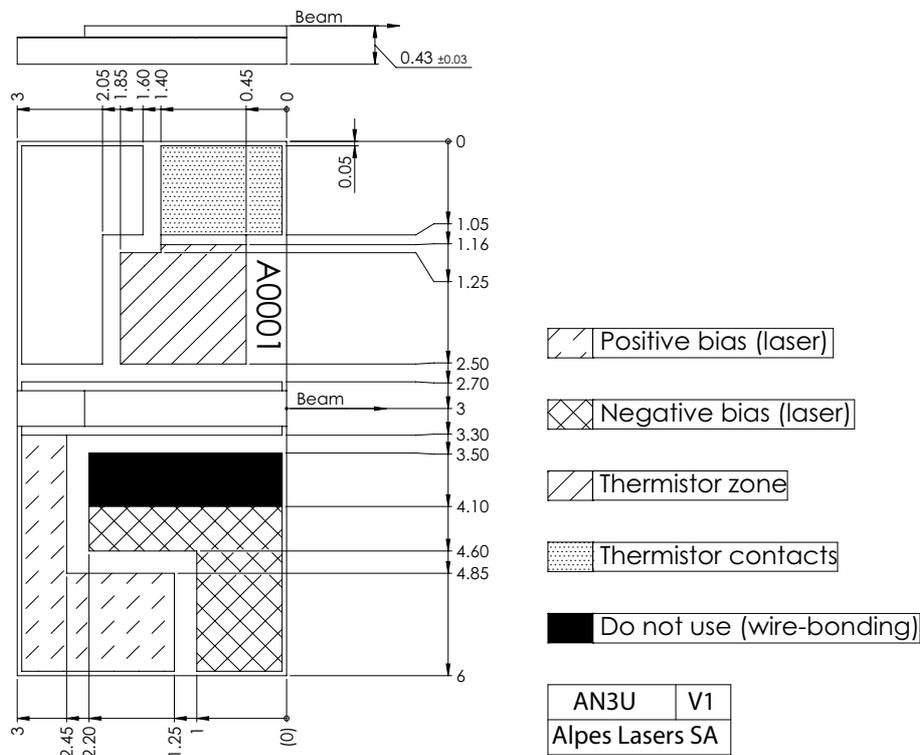


Figure 1: Mechanical and electrical interface for #sbcw26831 DN (please note that AlN submount numbering is A0VTA)

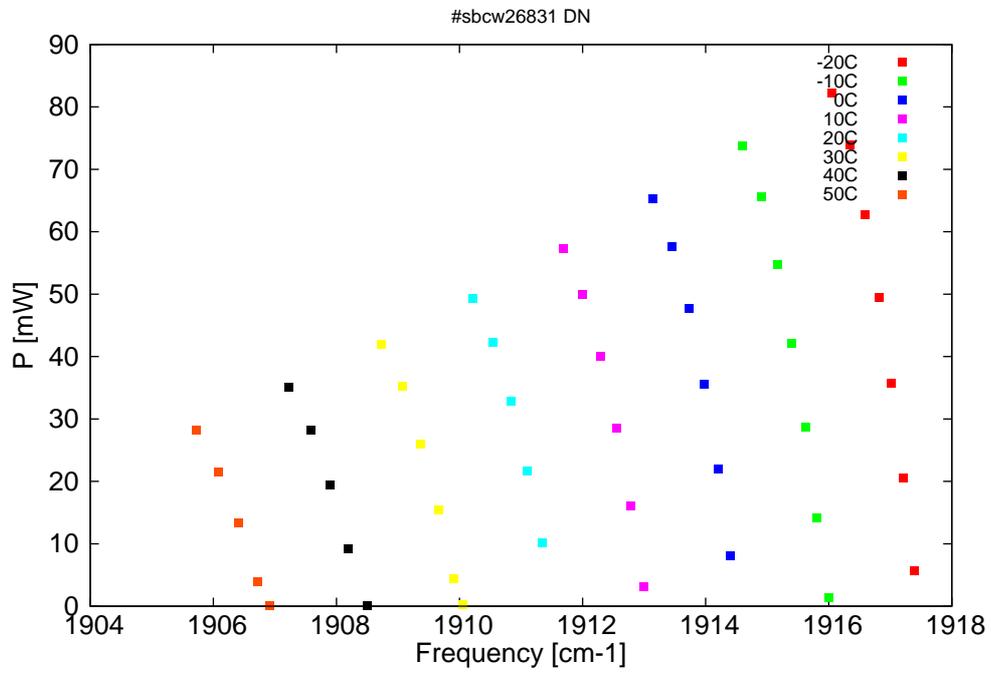


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

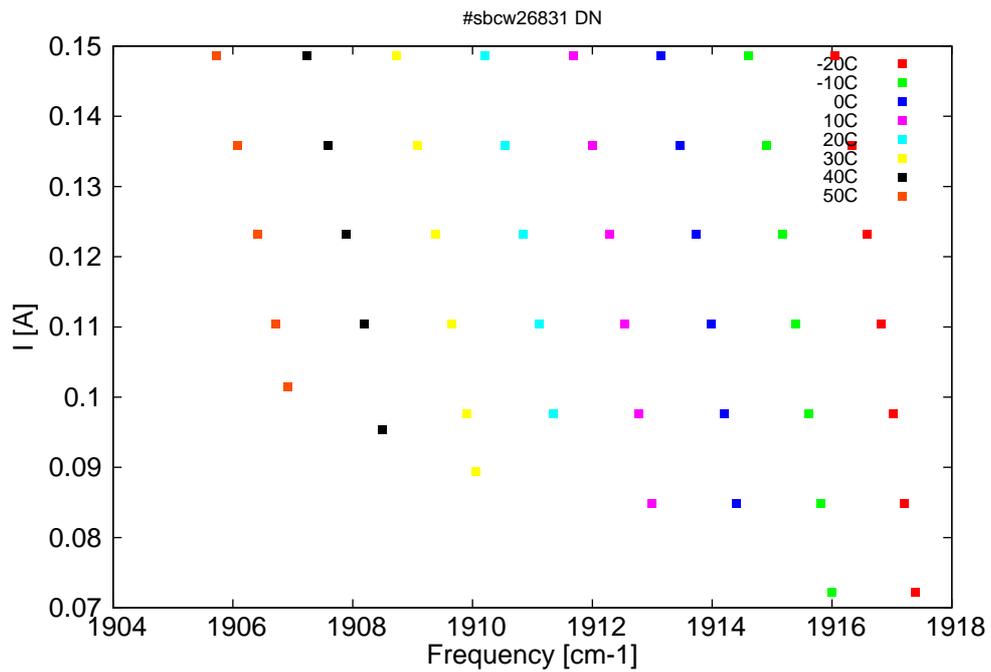


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5215.4	1917.4	5.6	-20	7.71	0.072
5215.9	1917.2	20.5	-20	7.91	0.085
5216.4	1917	35.7	-20	8.11	0.098
5217	1916.8	49.4	-20	8.32	0.11
5217.6	1916.6	62.7	-20	8.54	0.123
5218.3	1916.3	73.9	-20	8.78	0.136
5219.1	1916.1	82.2	-20	9.04	0.149
5219.2	1916	1.4	-10	7.67	0.072
5219.7	1915.8	14.2	-10	7.88	0.085
5220.2	1915.6	28.6	-10	8.09	0.098
5220.8	1915.4	42.2	-10	8.3	0.11
5221.5	1915.2	54.8	-10	8.52	0.123
5222.2	1914.9	65.6	-10	8.76	0.136
5223	1914.6	73.7	-10	9.02	0.149
5223.6	1914.4	8.1	0	7.85	0.085
5224.1	1914.2	21.9	0	8.06	0.098
5224.7	1914	35.5	0	8.28	0.11
5225.4	1913.7	47.7	0	8.5	0.123
5226.1	1913.5	57.7	0	8.74	0.136
5227	1913.1	65.4	0	9	0.149
5227.4	1913	3.1	10	7.83	0.085
5228	1912.8	16	10	8.05	0.098
5228.6	1912.5	28.5	10	8.26	0.11
5229.3	1912.3	40	10	8.49	0.123
5230.1	1912	50	10	8.73	0.136
5231	1911.7	57.3	10	8.99	0.149
5231.9	1911.4	10.1	20	8.03	0.098
5232.6	1911.1	21.6	20	8.24	0.11
5233.3	1910.8	32.8	20	8.47	0.123
5234.1	1910.5	42.3	20	8.72	0.136
5235	1910.2	49.4	20	8.98	0.149
5235.5	1910.1	0.2	30	7.86	0.089
5235.9	1909.9	4.4	30	8.01	0.098
5236.5	1909.7	15.4	30	8.23	0.11
5237.3	1909.4	26	30	8.46	0.123
5238.1	1909.1	35.2	30	8.71	0.136
5239.1	1908.7	42	30	8.97	0.149
5239.7	1908.5	0.1	40	7.95	0.095
5240.6	1908.2	9.2	40	8.22	0.11
5241.4	1907.9	19.4	40	8.45	0.123
5242.2	1907.6	28.2	40	8.7	0.136
5243.2	1907.2	35.1	40	8.96	0.149
5244.1	1906.9	0.1	50	8.02	0.101
5244.6	1906.7	3.9	50	8.18	0.11
5245.5	1906.4	13.4	50	8.41	0.123
5246.4	1906.1	21.5	50	8.66	0.136
5247.3	1905.7	28.2	50	8.91	0.149

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$\lambda[\text{nm}]$ $\nu[\text{cm}^{-1}]$ $P[\text{mW}]$ $\text{Temp}[\text{°C}]$ $U_{LASER}[\text{V}]$ $I[\text{A}]$
 Table 1: Singlemode optical output power as function of operating parameters.

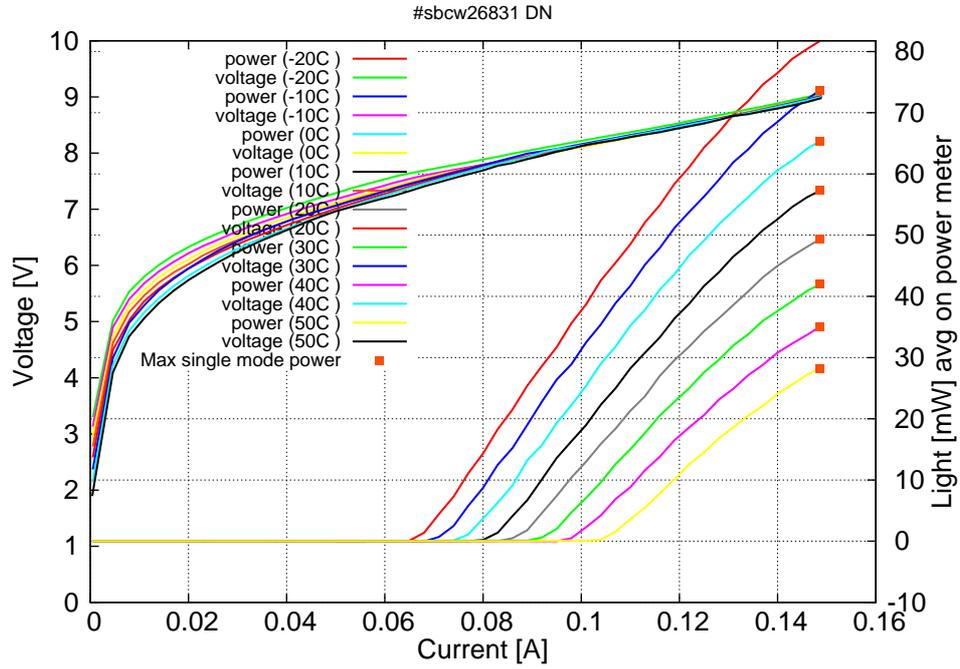


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07\text{A}$ / $V_{th}=7.6\text{V}$ (2-wires measurements). Maximum operation current: 0.15A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

