

Datasheet for #sbcw26815 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.

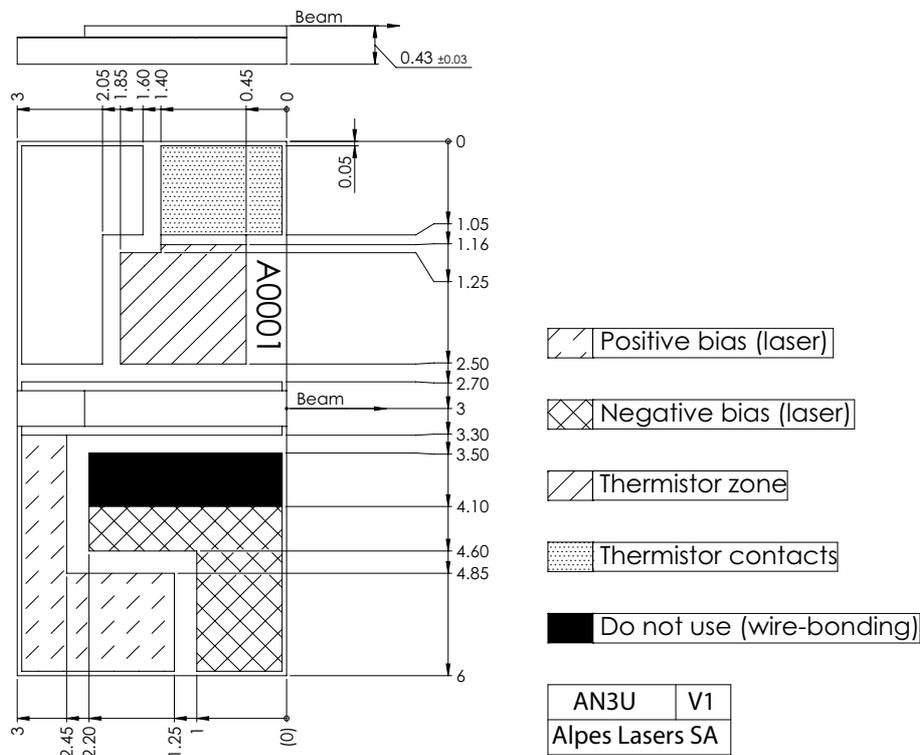


Figure 1: Mechanical and electrical interface for #sbcw26815 DN (please note that AlN submount numbering is A0YJD)

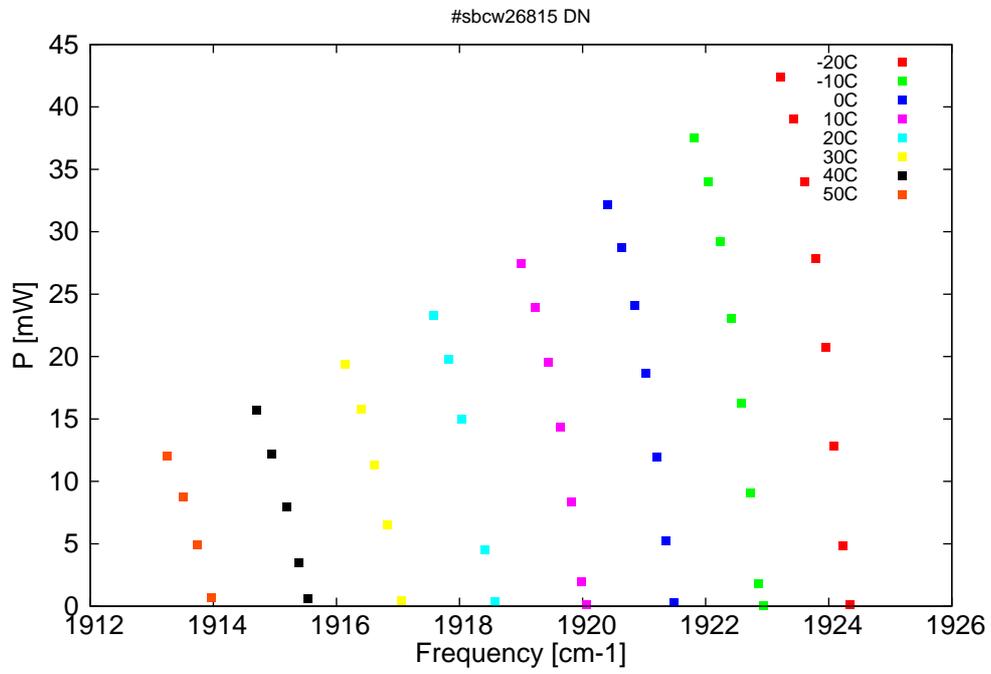


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

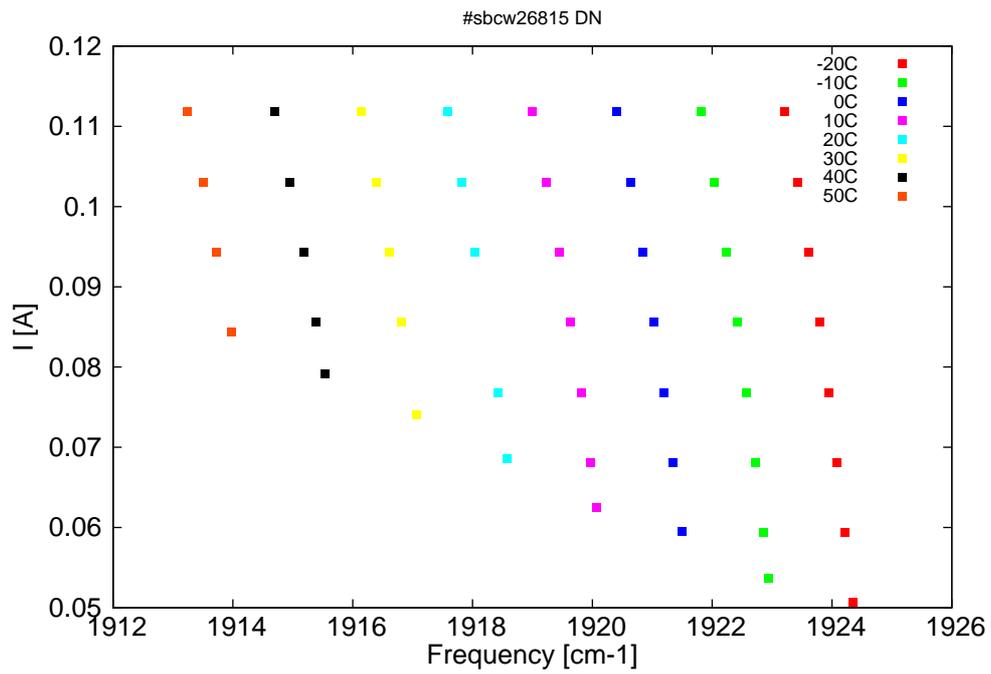


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5196.6	1924.3	0.1	-20	7.73	0.051
5196.9	1924.2	4.8	-20	7.92	0.059
5197.3	1924.1	12.8	-20	8.11	0.068
5197.7	1923.9	20.8	-20	8.3	0.077
5198.1	1923.8	27.8	-20	8.51	0.086
5198.5	1923.6	34	-20	8.73	0.094
5199	1923.4	39.1	-20	8.97	0.103
5199.6	1923.2	42.4	-20	9.23	0.112
5200.4	1922.9	0.1	-10	7.75	0.054
5200.6	1922.9	1.8	-10	7.88	0.059
5201	1922.7	9.1	-10	8.07	0.068
5201.4	1922.6	16.3	-10	8.26	0.077
5201.8	1922.4	23	-10	8.47	0.086
5202.3	1922.2	29.2	-10	8.69	0.094
5202.8	1922	34	-10	8.92	0.103
5203.4	1921.8	37.5	-10	9.18	0.112
5204.3	1921.5	0.3	0	7.84	0.06
5204.7	1921.4	5.2	0	8.03	0.068
5205.1	1921.2	12	0	8.23	0.077
5205.5	1921	18.7	0	8.43	0.086
5206	1920.8	24.1	0	8.66	0.094
5206.6	1920.6	28.8	0	8.89	0.103
5207.2	1920.4	32.1	0	9.14	0.112
5208.2	1920.1	0.1	10	7.87	0.063
5208.4	1920	2	10	8	0.068
5208.8	1919.8	8.3	10	8.2	0.077
5209.3	1919.6	14.3	10	8.4	0.086
5209.8	1919.4	19.5	10	8.62	0.094
5210.4	1919.2	24	10	8.86	0.103
5211	1919	27.5	10	9.11	0.112
5212.2	1918.6	0.4	20	7.99	0.069
5212.6	1918.4	4.5	20	8.17	0.077
5213.7	1918	15	20	8.6	0.094
5214.2	1917.8	19.8	20	8.83	0.103
5214.9	1917.6	23.3	20	9.08	0.112
5216.3	1917.1	0.5	30	8.08	0.074
5217	1916.8	6.5	30	8.35	0.086
5217.5	1916.6	11.3	30	8.57	0.094
5218.1	1916.4	15.8	30	8.8	0.103
5218.8	1916.1	19.4	30	9.05	0.112
5220.5	1915.5	0.6	40	8.16	0.079
5220.9	1915.4	3.5	40	8.32	0.086
5221.4	1915.2	7.9	40	8.53	0.094
5222.1	1915	12.2	40	8.76	0.103
5222.7	1914.7	15.7	40	9	0.112
5224.7	1914	0.7	50	8.28	0.084
5225.4	1913.7	4.9	50	8.52	0.094
5226	1913.5	8.7	50	8.75	0.103
5226.7	1913.2	12	50	8.99	0.112

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

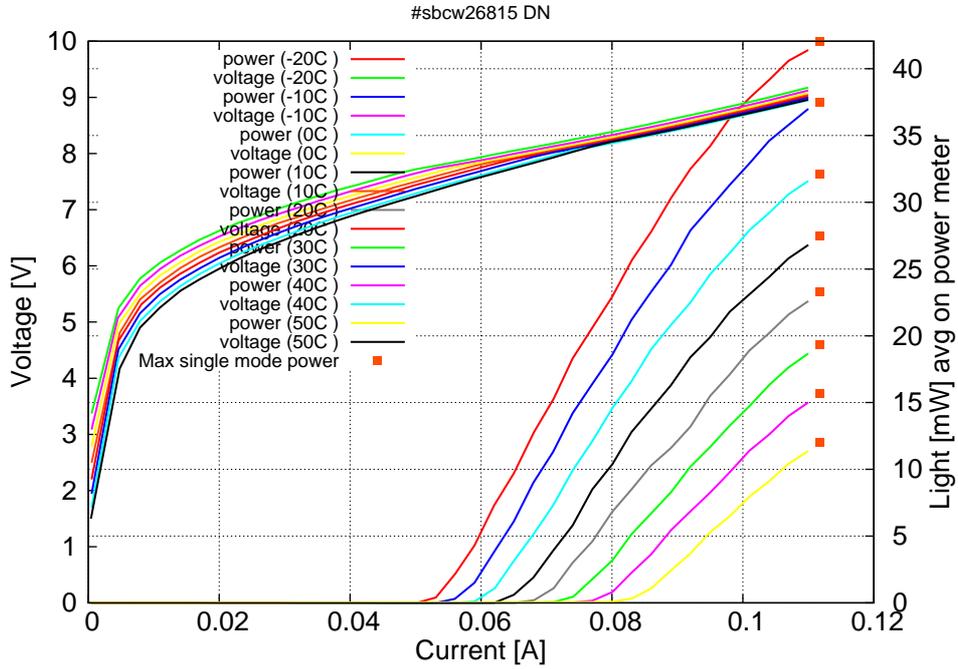


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.05\text{A}$ / $V_{th}=7.8\text{V}$ (2-wires measurements). Maximum operation current: 0.112A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

