

Datasheet for #sbcw26818 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.

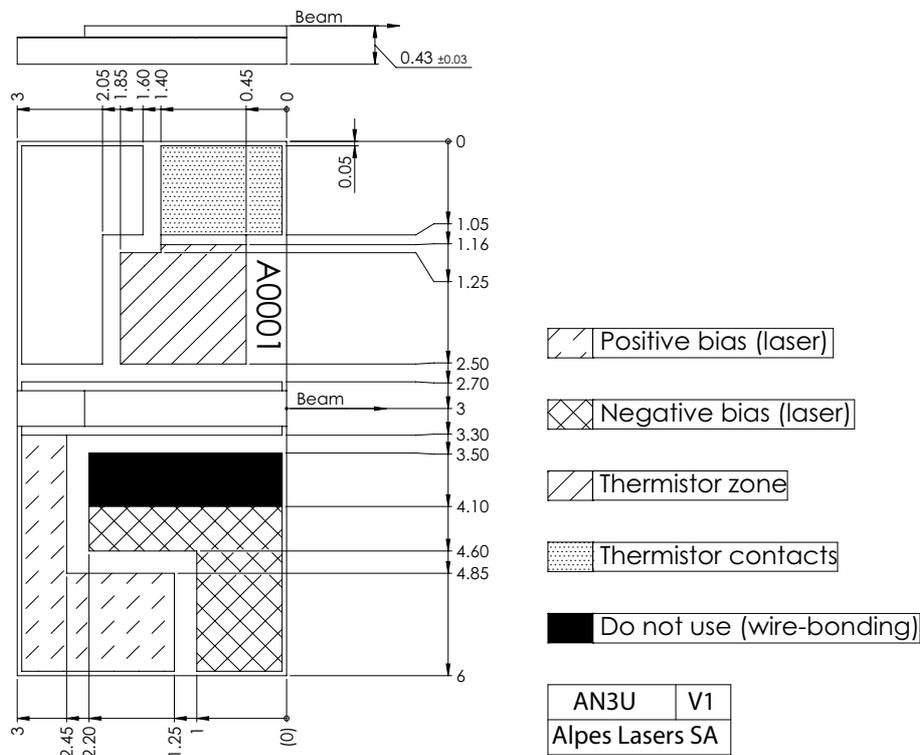


Figure 1: Mechanical and electrical interface for #sbcw26818 DN (please note that AlN submount numbering is A0YK5)

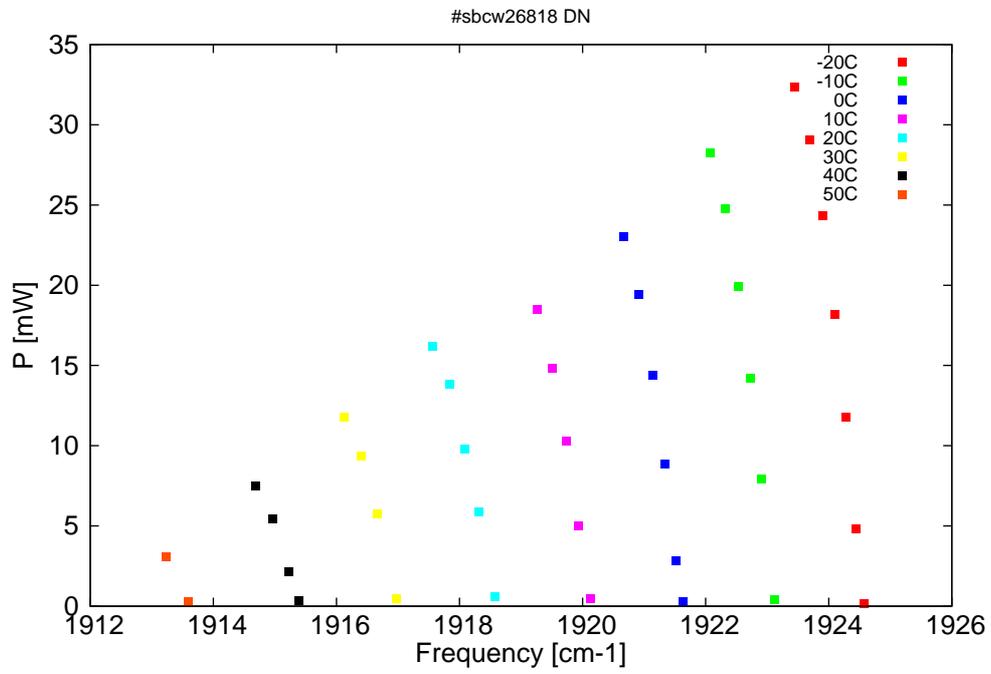


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

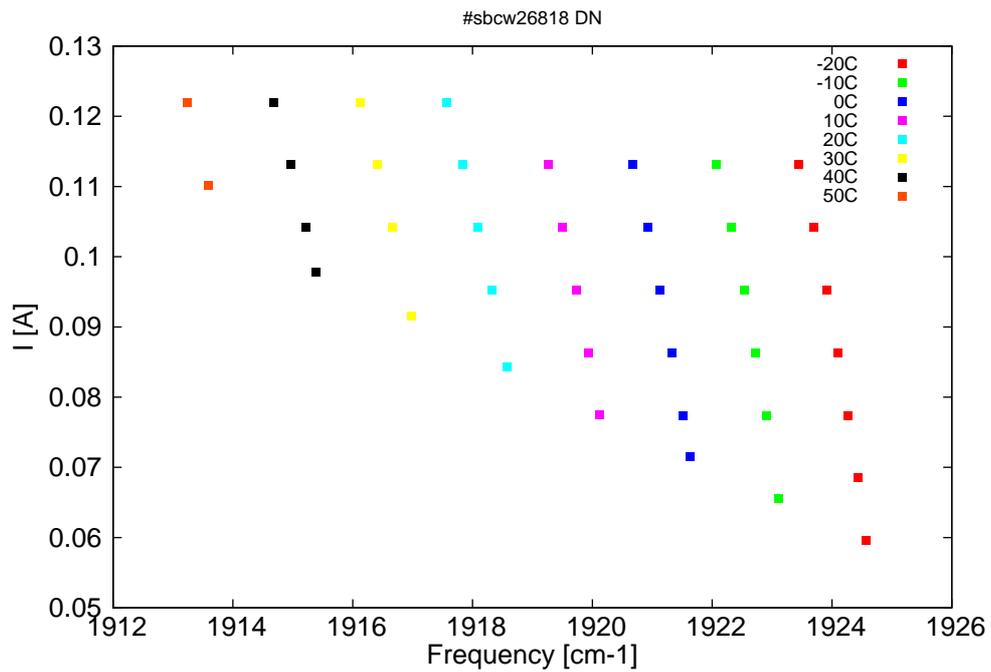


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5195.9	1924.6	0.2	-20	7.97	0.06
5196.3	1924.4	4.8	-20	8.18	0.069
5196.8	1924.3	11.8	-20	8.4	0.077
5197.2	1924.1	18.1	-20	8.63	0.086
5197.7	1923.9	24.3	-20	8.88	0.095
5198.3	1923.7	29.1	-20	9.15	0.104
5199	1923.5	32.4	-20	9.46	0.113
5199.9	1923.1	0.4	-10	8.04	0.066
5200.5	1922.9	7.9	-10	8.33	0.077
5200.9	1922.7	14.2	-10	8.56	0.086
5201.5	1922.5	19.9	-10	8.81	0.095
5202.1	1922.3	24.8	-10	9.07	0.104
5202.7	1922.1	28.3	-10	9.37	0.113
5203.9	1921.6	0.3	0	8.15	0.072
5204.2	1921.5	2.9	0	8.29	0.077
5204.7	1921.3	8.9	0	8.52	0.086
5205.3	1921.1	14.4	0	8.76	0.095
5205.8	1920.9	19.5	0	9.02	0.104
5206.5	1920.7	23	0	9.31	0.113
5208	1920.1	0.5	10	8.25	0.078
5208.5	1919.9	5	10	8.48	0.086
5209.1	1919.7	10.3	10	8.72	0.095
5209.7	1919.5	14.8	10	8.97	0.104
5210.3	1919.3	18.5	10	9.25	0.113
5212.2	1918.6	0.6	20	8.41	0.084
5212.9	1918.3	5.8	20	8.7	0.095
5213.5	1918.1	9.8	20	8.95	0.104
5214.2	1917.8	13.9	20	9.22	0.113
5214.9	1917.6	16.2	20	9.5	0.122
5216.5	1917	0.4	30	8.58	0.092
5217.4	1916.7	5.7	30	8.92	0.104
5218.1	1916.4	9.3	30	9.18	0.113
5218.9	1916.1	11.8	30	9.46	0.122
5220.9	1915.4	0.3	40	8.69	0.098
5221.3	1915.2	2.1	40	8.85	0.104
5222	1915	5.4	40	9.1	0.113
5222.8	1914.7	7.5	40	9.37	0.122
5225.8	1913.6	0.3	50	8.95	0.11
5226.8	1913.2	3.1	50	9.29	0.122

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

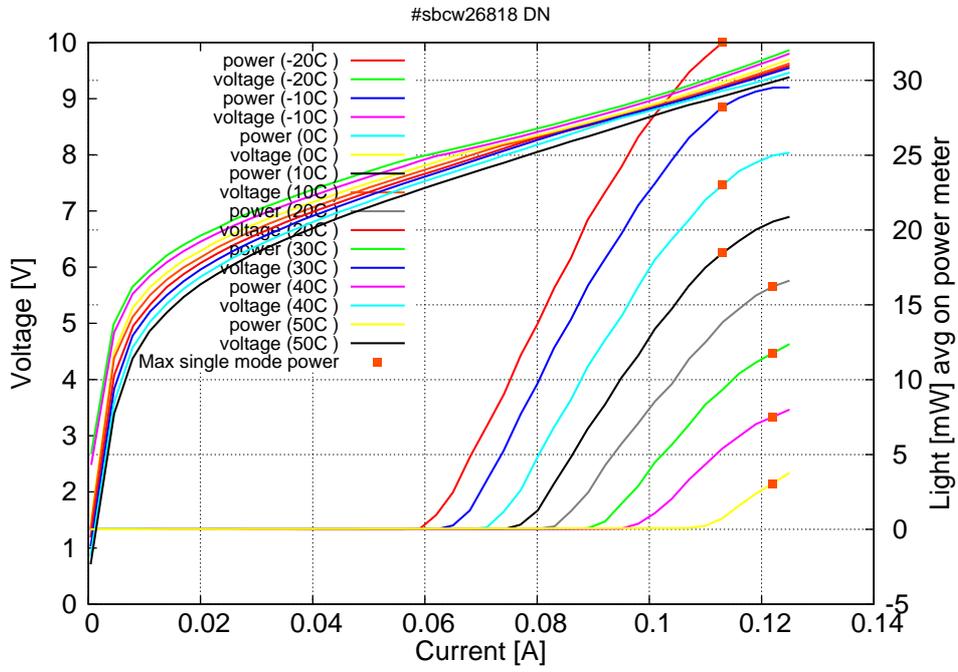


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=8.0V$ (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

