

Datasheet for #sbcw26816 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.

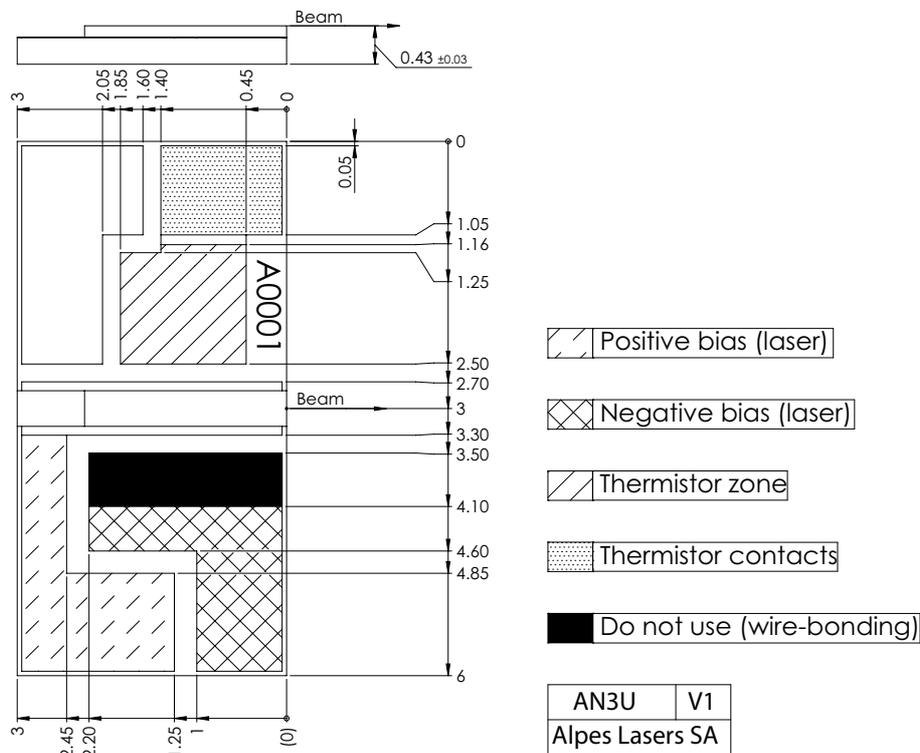


Figure 1: Mechanical and electrical interface for #sbcw26816 DN (please note that AlN submount numbering is A0YH3)

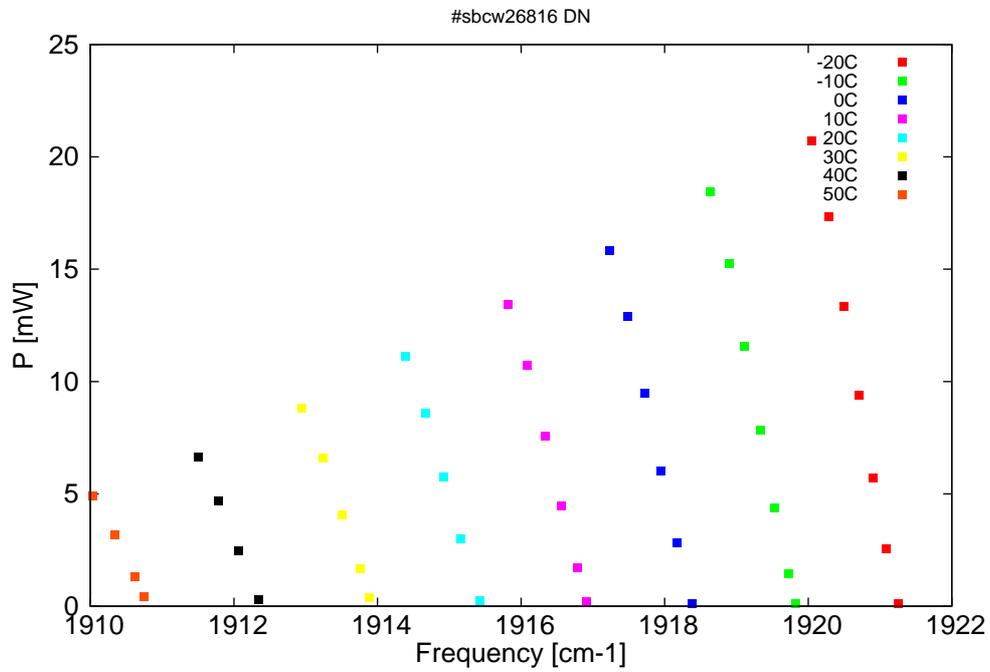


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

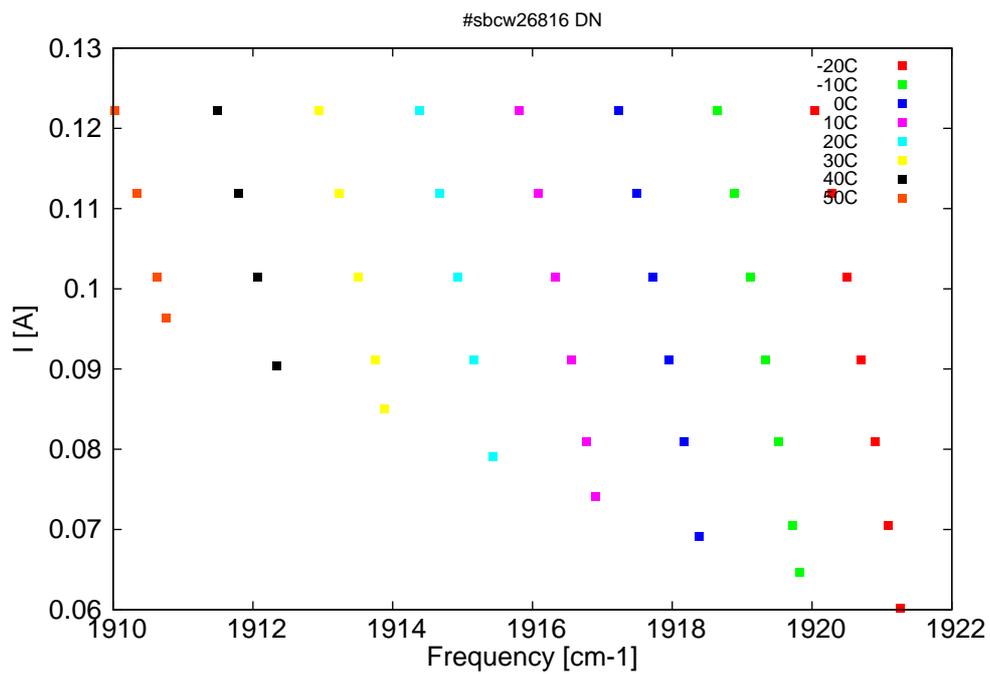


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5204.9	1921.3	0.1	-20	7.62	0.06
5205.4	1921.1	2.6	-20	7.81	0.071
5205.9	1920.9	5.7	-20	8.01	0.081
5206.4	1920.7	9.4	-20	8.21	0.091
5207	1920.5	13.4	-20	8.42	0.102
5207.6	1920.3	17.3	-20	8.64	0.112
5208.2	1920	20.7	-20	8.89	0.122
5208.8	1919.8	0.1	-10	7.67	0.065
5209.1	1919.7	1.4	-10	7.78	0.071
5209.6	1919.5	4.4	-10	7.98	0.081
5210.1	1919.3	7.8	-10	8.18	0.091
5210.7	1919.1	11.5	-10	8.39	0.102
5211.3	1918.9	15.3	-10	8.62	0.112
5212	1918.6	18.5	-10	8.87	0.122
5212.7	1918.4	0.1	0	7.72	0.069
5213.3	1918.2	2.8	0	7.95	0.081
5213.9	1917.9	6	0	8.15	0.091
5214.5	1917.7	9.5	0	8.37	0.102
5215.1	1917.5	12.9	0	8.6	0.112
5215.8	1917.2	15.9	0	8.85	0.122
5216.7	1916.9	0.2	10	7.78	0.074
5217.1	1916.8	1.7	10	7.92	0.081
5217.7	1916.6	4.5	10	8.13	0.091
5218.3	1916.3	7.6	10	8.35	0.102
5219	1916.1	10.7	10	8.58	0.112
5219.7	1915.8	13.4	10	8.83	0.122
5220.7	1915.4	0.3	20	7.86	0.079
5221.5	1915.2	3	20	8.11	0.091
5222.1	1914.9	5.8	20	8.33	0.102
5222.8	1914.7	8.6	20	8.56	0.112
5223.6	1914.4	11.1	20	8.82	0.122
5225	1913.9	0.4	30	7.96	0.085
5225.3	1913.8	1.7	30	8.09	0.091
5226	1913.5	4	30	8.32	0.102
5226.7	1913.2	6.6	30	8.55	0.112
5227.5	1913	8.8	30	8.81	0.122
5229.2	1912.3	0.3	40	8.09	0.09
5229.9	1912.1	2.5	40	8.33	0.102
5230.7	1911.8	4.7	40	8.58	0.112
5231.5	1911.5	6.6	40	8.84	0.122
5233.5	1910.8	0.4	50	8.17	0.096
5233.9	1910.6	1.3	50	8.28	0.102
5234.7	1910.3	3.2	50	8.52	0.112
5235.5	1910	4.9	50	8.78	0.122

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

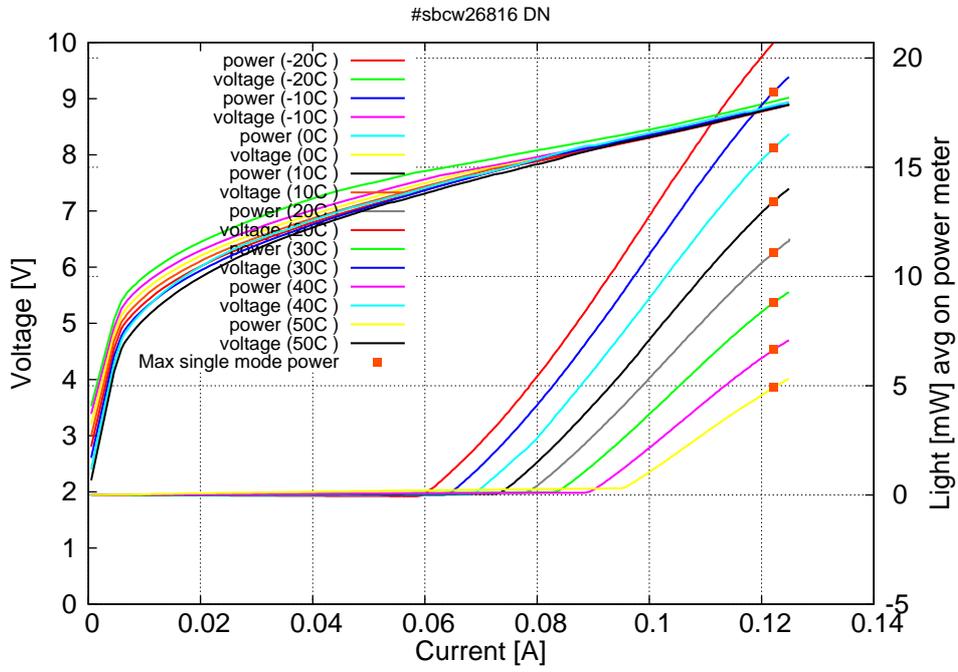


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=7.7V$ (2-wires measurements). Maximum operation current: 0.125A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

