

Datasheet for #sbcw26809 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.

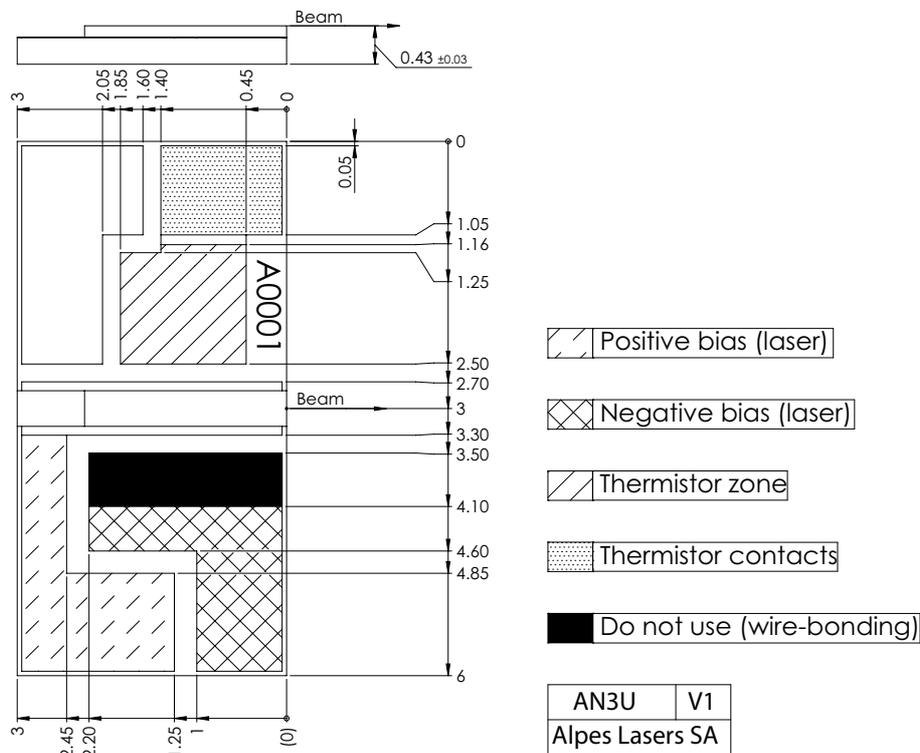


Figure 1: Mechanical and electrical interface for #sbcw26809 DN (please note that AlN submount numbering is A0WH6)

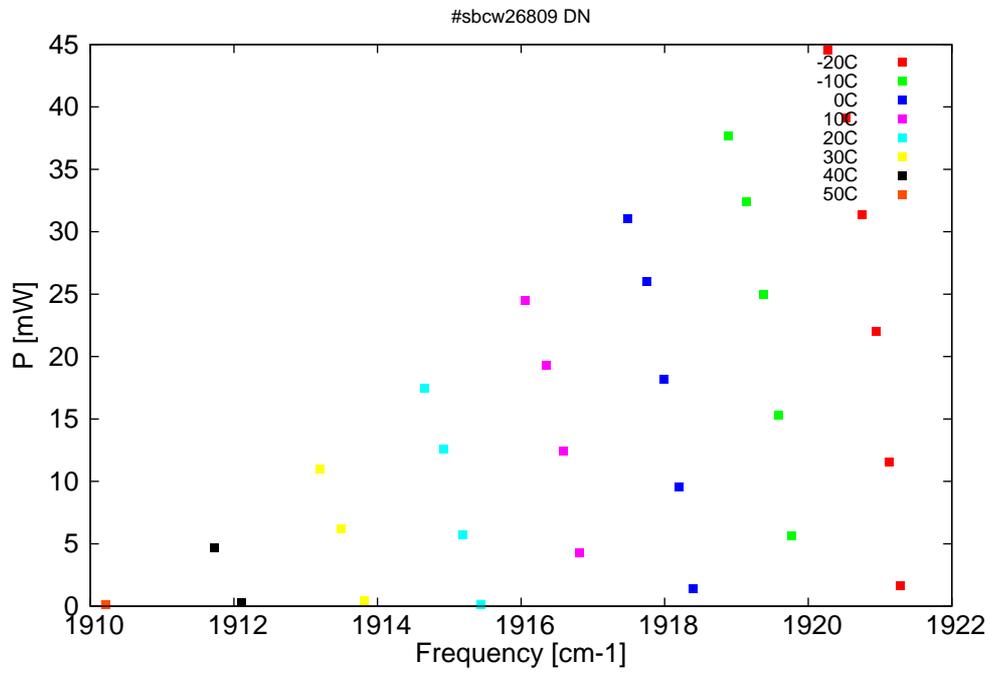


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

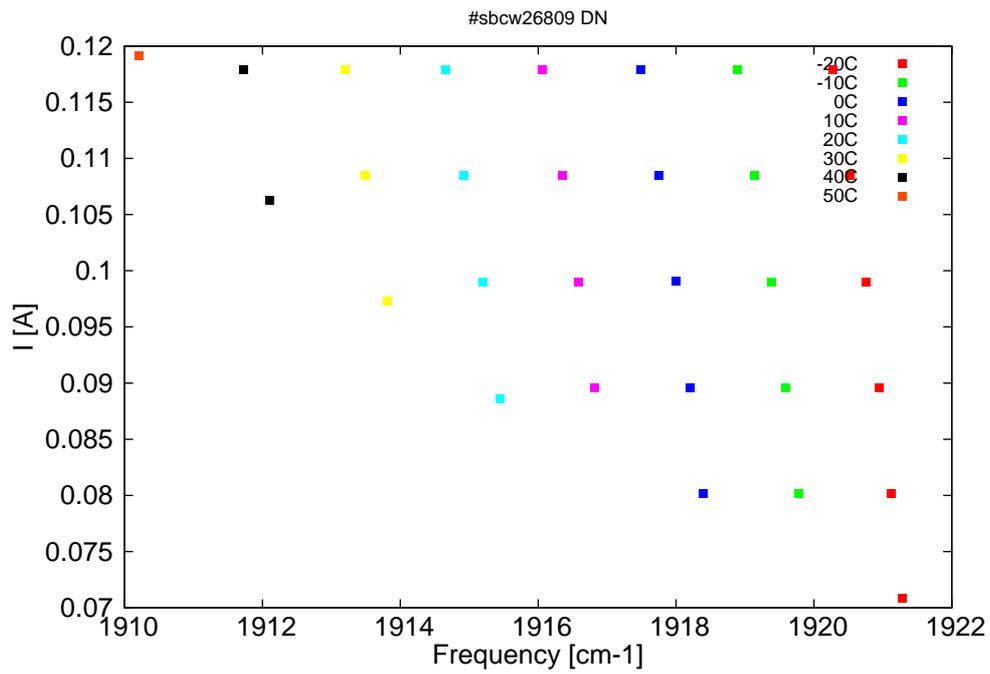


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5204.8	1921.3	1.6	-20	8.01	0.071
5205.3	1921.1	11.5	-20	8.19	0.08
5205.8	1920.9	22	-20	8.39	0.09
5206.3	1920.8	31.3	-20	8.6	0.099
5206.9	1920.5	39.1	-20	8.84	0.109
5207.6	1920.3	44.6	-20	9.1	0.118
5208.9	1919.8	5.7	-10	8.16	0.08
5209.4	1919.6	15.3	-10	8.36	0.09
5210	1919.4	25	-10	8.57	0.099
5210.7	1919.1	32.4	-10	8.81	0.109
5211.4	1918.9	37.7	-10	9.08	0.118
5212.7	1918.4	1.4	0	8.14	0.08
5213.2	1918.2	9.5	0	8.33	0.09
5213.8	1918	18.2	0	8.55	0.099
5214.4	1917.7	26	0	8.79	0.109
5215.2	1917.5	31.1	0	9.05	0.118
5217	1916.8	4.3	10	8.31	0.09
5217.6	1916.6	12.4	10	8.52	0.099
5218.3	1916.3	19.3	10	8.76	0.109
5219	1916.1	24.5	10	9.02	0.118
5220.7	1915.4	0.1	20	8.27	0.089
5221.4	1915.2	5.7	20	8.5	0.099
5222.1	1914.9	12.6	20	8.74	0.109
5222.9	1914.7	17.5	20	9	0.118
5225.2	1913.8	0.4	30	8.45	0.097
5226.1	1913.5	6.2	30	8.72	0.109
5226.8	1913.2	11	30	8.97	0.118
5229.8	1912.1	0.3	40	8.65	0.106
5230.9	1911.7	4.7	40	8.95	0.118
5235	1910.2	0.1	50	8.97	0.119

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

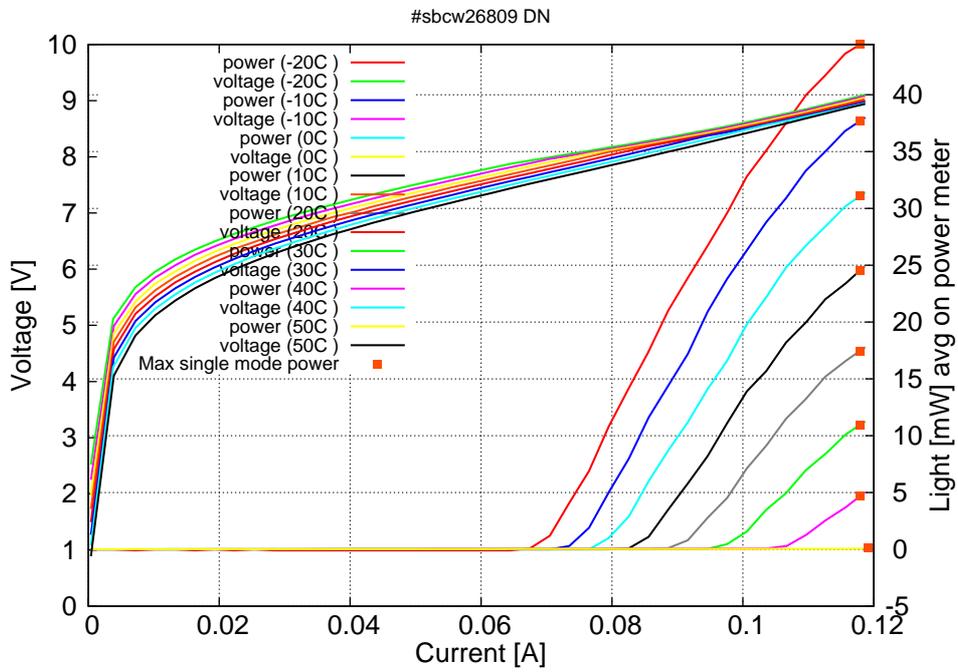


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=8.0V$ (2-wires measurements). Maximum operation current: 0.12A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

