

Datasheet for #sbcw26807 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.

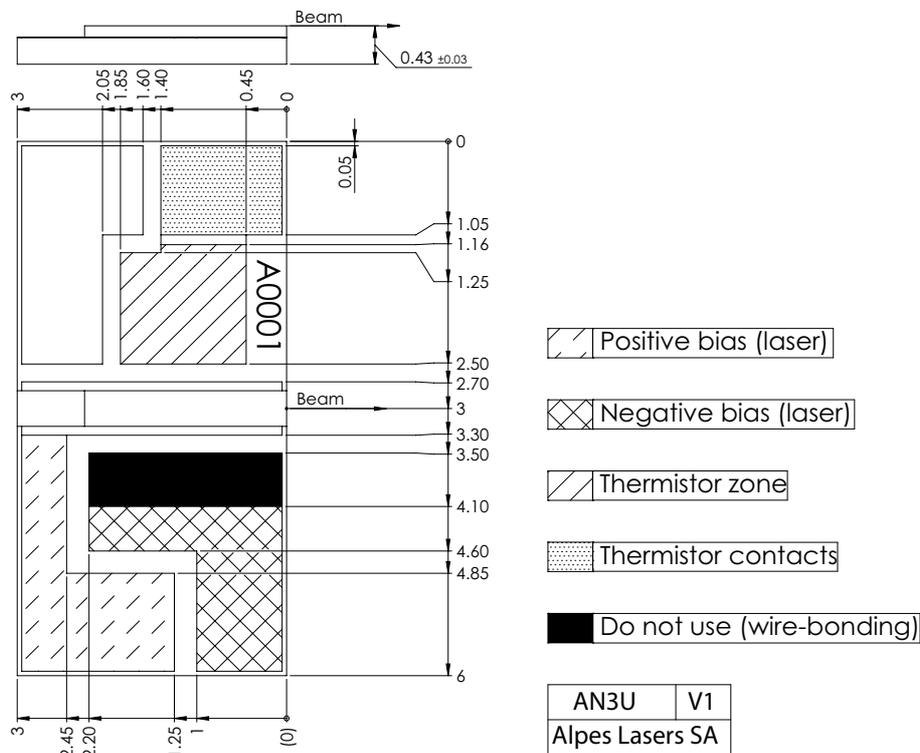


Figure 1: Mechanical and electrical interface for #sbcw26807 DN (please note that AlN submount numbering is A0YGV)

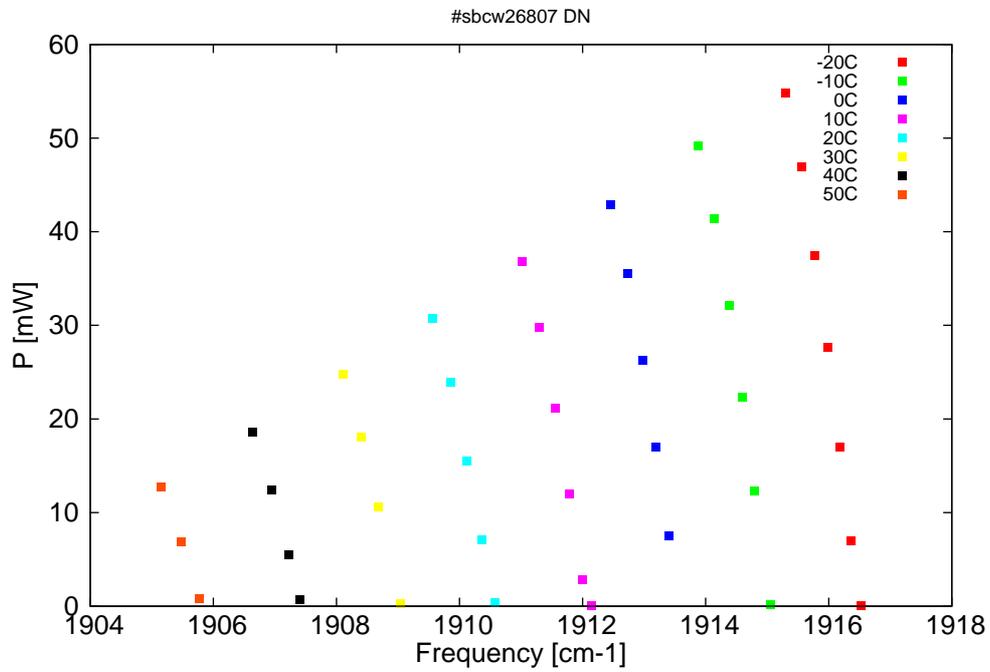


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

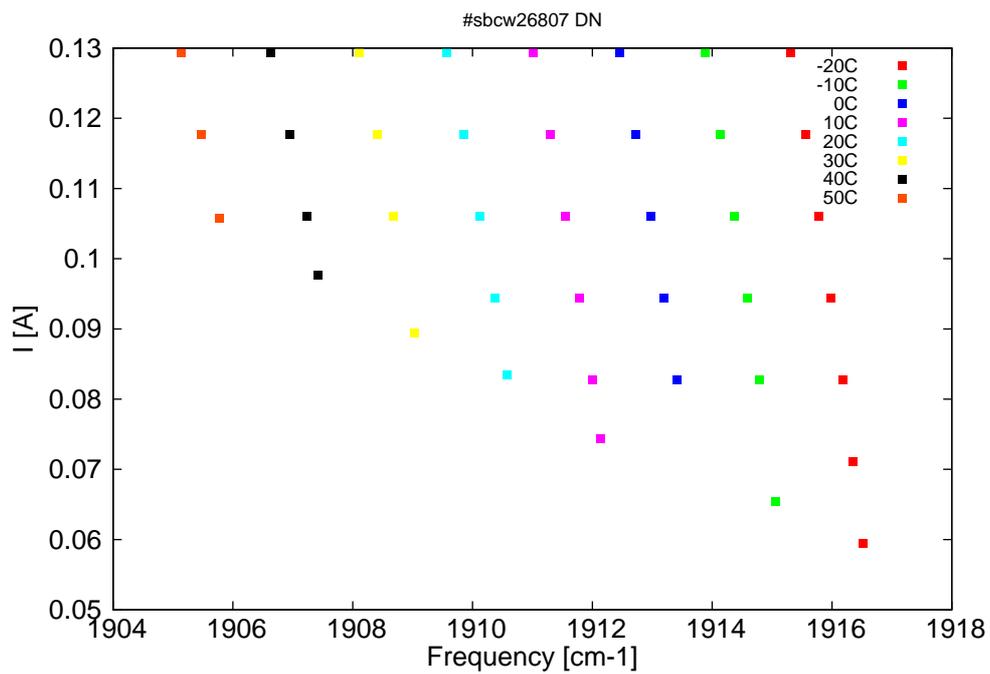


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5217.8	1916.5	0.1	-20	7.54	0.059
5218.2	1916.4	7	-20	7.73	0.071
5218.7	1916.2	16.9	-20	7.92	0.083
5219.2	1916	27.6	-20	8.12	0.094
5219.8	1915.8	37.4	-20	8.32	0.106
5220.4	1915.6	46.9	-20	8.53	0.118
5221.1	1915.3	54.8	-20	8.78	0.129
5221.8	1915.1	0.1	-10	7.61	0.065
5222.5	1914.8	12.3	-10	7.89	0.083
5223	1914.6	22.3	-10	8.09	0.094
5223.6	1914.4	32.1	-10	8.29	0.106
5224.3	1914.1	41.4	-10	8.51	0.118
5225	1913.9	49.2	-10	8.76	0.129
5226.3	1913.4	7.5	0	7.86	0.083
5226.9	1913.2	17	0	8.07	0.094
5227.5	1913	26.3	0	8.27	0.106
5228.1	1912.7	35.6	0	8.49	0.118
5228.9	1912.5	42.9	0	8.74	0.129
5229.7	1912.1	0	10	7.71	0.074
5230.1	1912	2.8	10	7.85	0.083
5230.7	1911.8	12	10	8.06	0.094
5231.4	1911.6	21.1	10	8.27	0.106
5232	1911.3	29.8	10	8.49	0.118
5232.8	1911	36.8	10	8.74	0.129
5234	1910.6	0.4	20	7.85	0.083
5234.6	1910.4	7.1	20	8.05	0.094
5235.3	1910.1	15.5	20	8.26	0.106
5236	1909.9	23.9	20	8.49	0.118
5236.8	1909.6	30.7	20	8.74	0.129
5238.3	1909	0.3	30	7.97	0.089
5239.2	1908.7	10.6	30	8.28	0.106
5240	1908.4	18.1	30	8.51	0.118
5240.8	1908.1	24.8	30	8.77	0.129
5242.7	1907.4	0.6	40	8.12	0.098
5243.2	1907.2	5.4	40	8.28	0.106
5244	1906.9	12.4	40	8.52	0.118
5244.9	1906.6	18.6	40	8.79	0.129
5247.2	1905.8	0.8	50	8.26	0.106
5248	1905.5	6.9	50	8.5	0.118
5248.9	1905.1	12.8	50	8.76	0.129

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

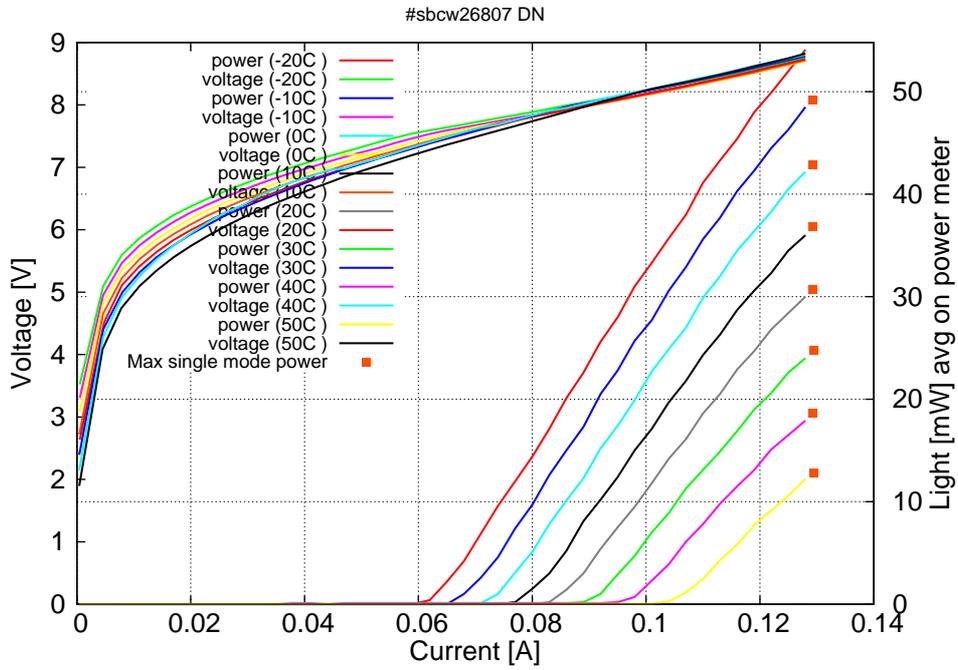


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=7.6V$ (2-wires measurements). Maximum operation current: 0.13A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

