

**Datasheet for #sbcw26828 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.

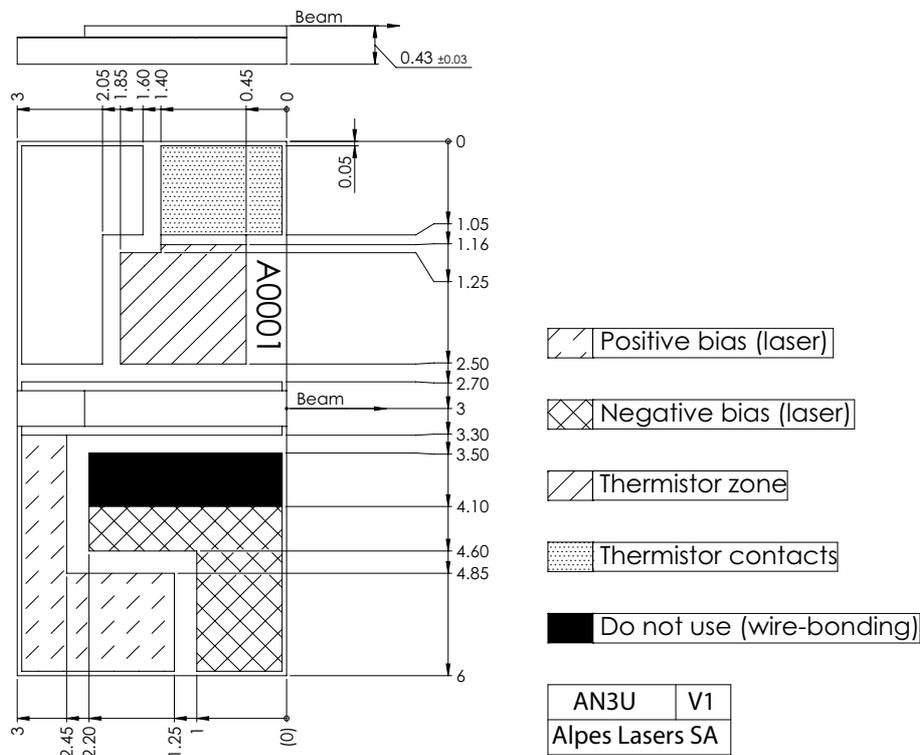


Figure 1: Mechanical and electrical interface for #sbcw26828 DN (please note that AlN submount numbering is A0WJ0)

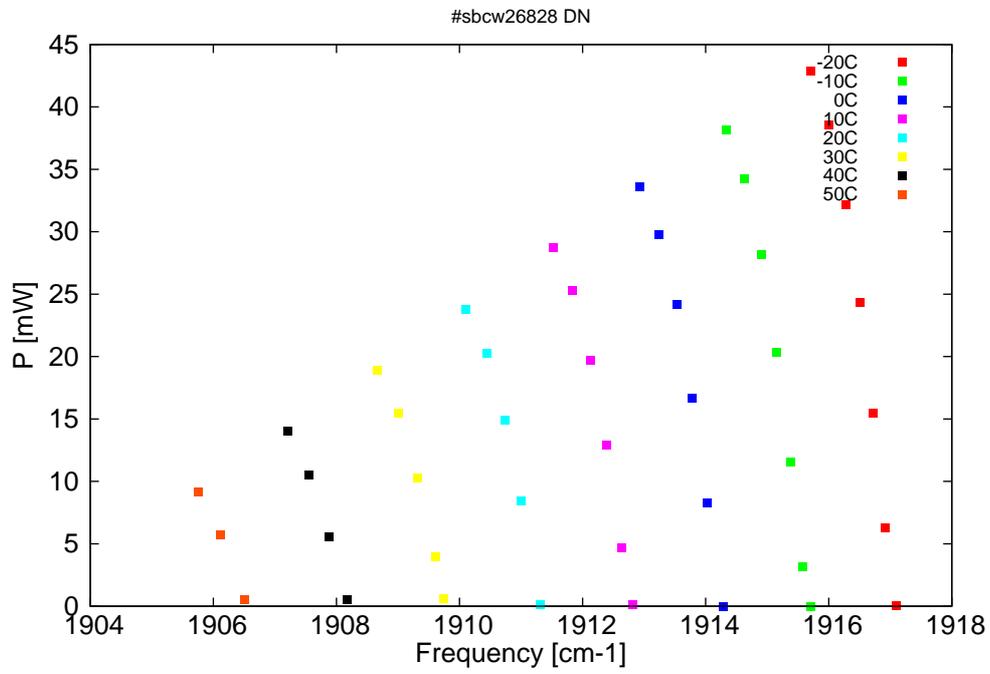


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

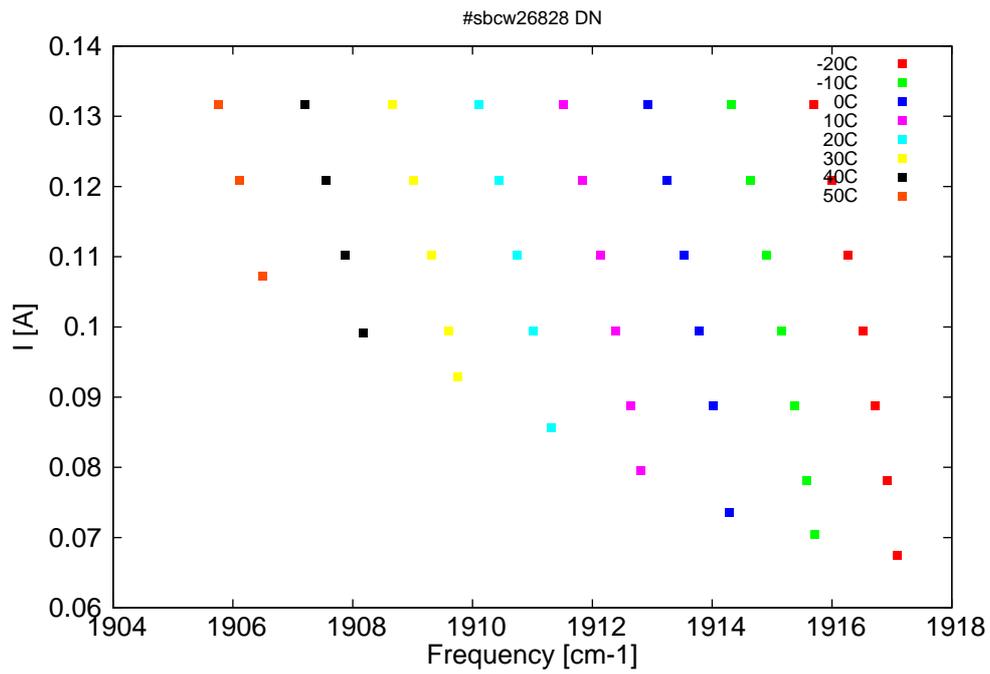


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5216.2	1917.1	0	-20	8	0.067
5216.7	1916.9	6.2	-20	8.21	0.078
5217.2	1916.7	15.5	-20	8.42	0.089
5217.8	1916.5	24.4	-20	8.65	0.1
5218.5	1916.3	32.1	-20	8.89	0.11
5219.2	1916	38.5	-20	9.15	0.121
5220	1915.7	42.9	-20	9.43	0.132
5220	1915.7	0	-10	8.02	0.07
5220.3	1915.6	3.2	-10	8.17	0.078
5220.9	1915.4	11.6	-10	8.38	0.089
5221.5	1915.2	20.4	-10	8.61	0.1
5222.2	1914.9	28.2	-10	8.85	0.11
5222.9	1914.6	34.2	-10	9.11	0.121
5223.8	1914.3	38.1	-10	9.39	0.132
5223.9	1914.3	0	0	8.04	0.074
5224.6	1914	8.3	0	8.34	0.089
5225.2	1913.8	16.7	0	8.57	0.1
5225.9	1913.5	24.2	0	8.82	0.11
5226.7	1913.2	29.8	0	9.07	0.121
5227.6	1912.9	33.6	0	9.35	0.132
5227.9	1912.8	0.1	10	8.12	0.08
5228.4	1912.6	4.7	10	8.31	0.089
5229	1912.4	12.9	10	8.54	0.1
5229.7	1912.1	19.7	10	8.78	0.11
5230.6	1911.8	25.3	10	9.04	0.121
5231.4	1911.5	28.7	10	9.32	0.132
5232	1911.3	0.1	20	8.21	0.086
5232.8	1911	8.4	20	8.5	0.1
5233.6	1910.7	14.9	20	8.75	0.11
5234.4	1910.4	20.3	20	9.01	0.121
5235.3	1910.1	23.8	20	9.28	0.132
5236.3	1909.7	0.6	30	8.33	0.093
5236.7	1909.6	3.9	30	8.47	0.1
5237.5	1909.3	10.3	30	8.72	0.11
5238.3	1909	15.5	30	8.97	0.121
5239.3	1908.7	18.9	30	9.24	0.132
5240.6	1908.2	0.5	40	8.43	0.099
5241.4	1907.9	5.5	40	8.68	0.11
5242.3	1907.6	10.5	40	8.94	0.121
5243.3	1907.2	14	40	9.2	0.132
5245.2	1906.5	0.5	50	8.58	0.107
5246.3	1906.1	5.7	50	8.9	0.121
5247.3	1905.7	9.2	50	9.16	0.132

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

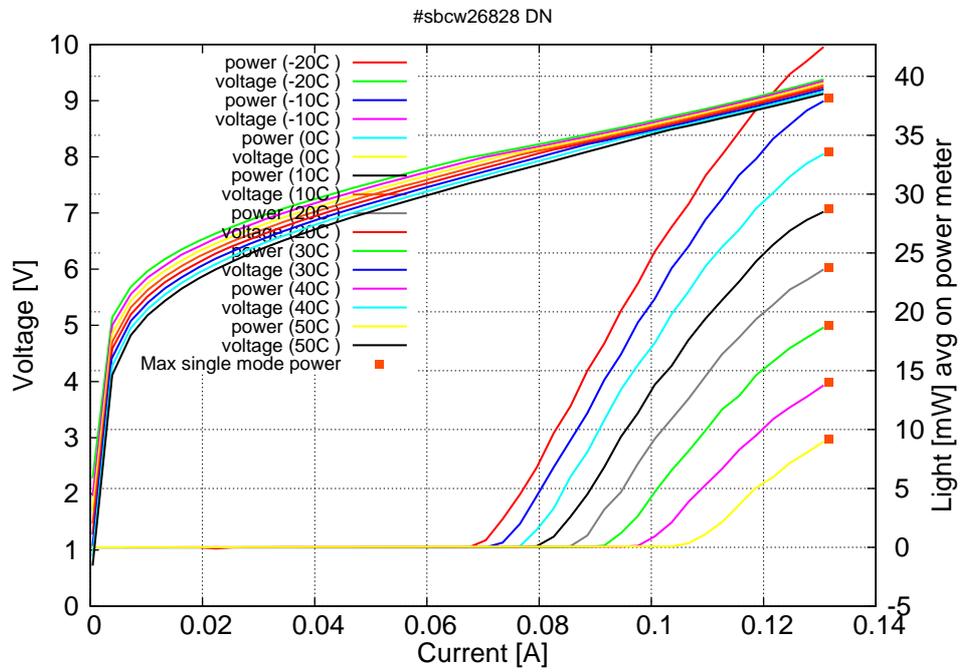


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.07A$  /  $V_{th}=8.0V$  (2-wires measurements). Maximum operation current: 0.132A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

