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Datasheet for #sbcw26812 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.

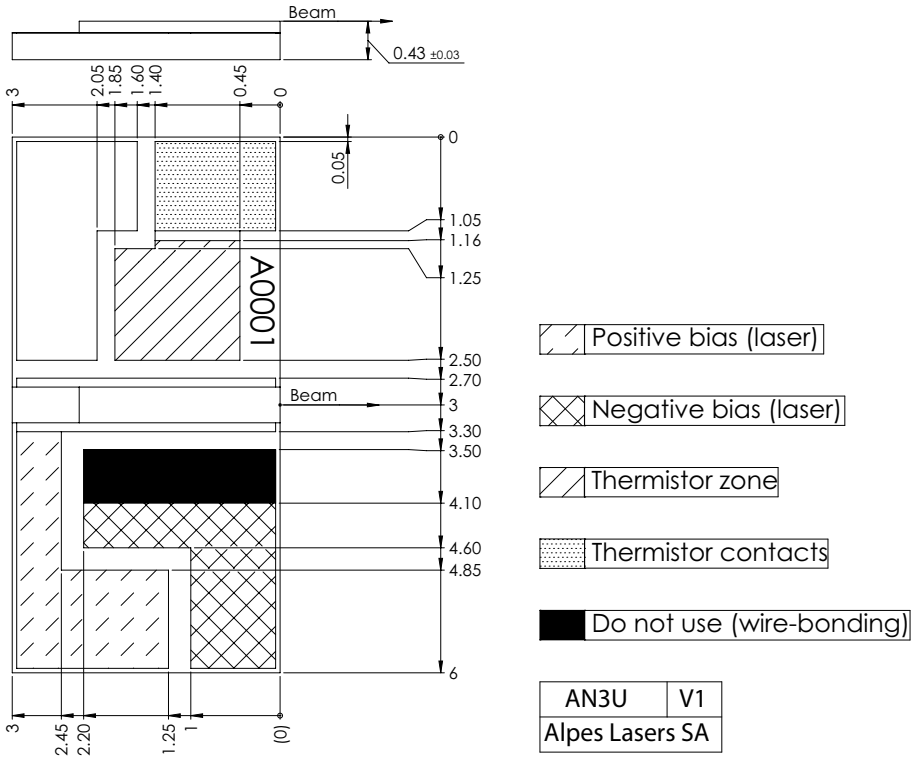

Figure 1: Mechanical and electrical interface for #sbcw26812 DN (please note that AlN submount numbering is A0UWD)

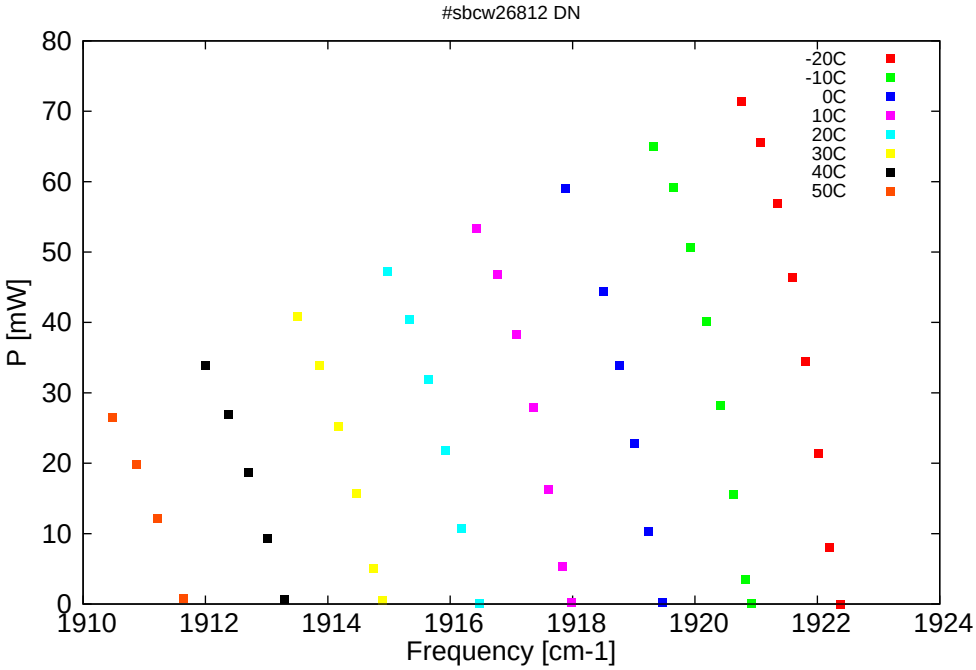

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

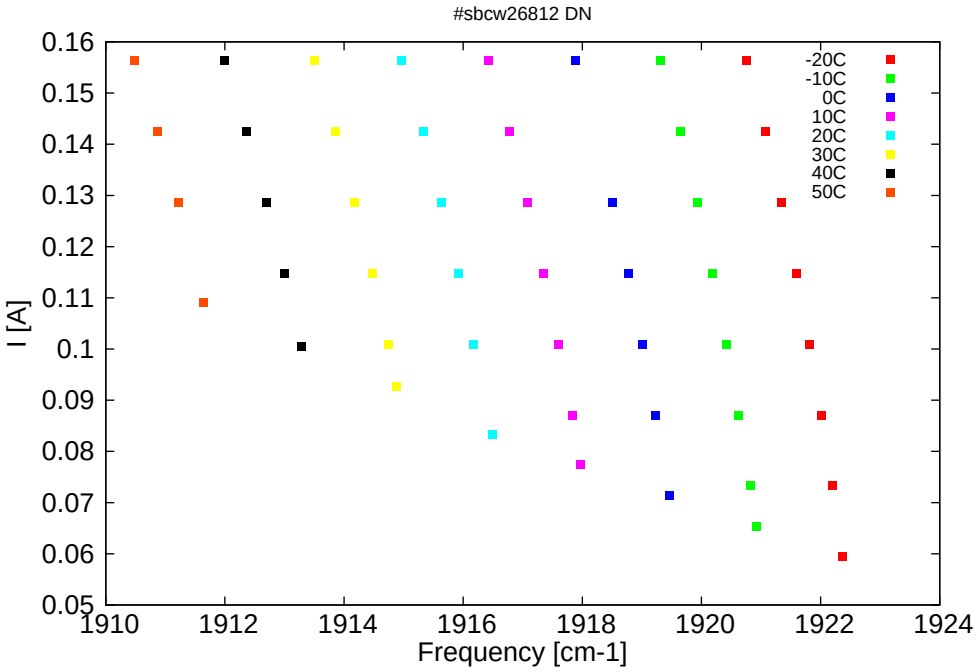

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
5201.9	1922.4	0	-20	7.47	0.059
5202.4	1922.2	8.1	-20	7.67	0.073
5202.9	1922	21.4	-20	7.88	0.087
5203.4	1921.8	34.4	-20	8.1	0.101
5204	1921.6	46.4	-20	8.31	0.115
5204.7	1921.3	57	-20	8.53	0.129
5205.4	1921.1	65.5	-20	8.79	0.142
5206.3	1920.8	71.4	-20	9.06	0.156
5205.8	1920.9	0.1	-10	7.53	0.065
5206.1	1920.8	3.5	-10	7.64	0.073
5206.6	1920.6	15.6	-10	7.85	0.087
5207.2	1920.4	28.2	-10	8.07	0.101
5207.8	1920.2	40.1	-10	8.28	0.115
5208.5	1919.9	50.7	-10	8.51	0.129
5209.3	1919.6	59.2	-10	8.77	0.142
5210.2	1919.3	64.9	-10	9.04	0.156
5209.8	1919.5	0.2	0	7.59	0.071
5210.4	1919.2	10.3	0	7.82	0.087
5211	1919	22.8	0	8.04	0.101
5211.7	1918.8	33.9	0	8.26	0.115
5212.4	1918.5	44.5	0	8.49	0.129
5214.1	1917.9	59	0	9.02	0.156
5213.8	1918	0.2	10	7.65	0.077
5214.2	1917.8	5.3	10	7.8	0.087
5214.9	1917.6	16.2	10	8.02	0.101
5215.5	1917.4	27.9	10	8.24	0.115
5216.3	1917.1	38.3	10	8.47	0.129
5217.1	1916.8	46.8	10	8.73	0.142
5218	1916.4	53.4	10	9.01	0.156
5217.9	1916.5	0.1	20	7.73	0.083
5218.7	1916.2	10.7	20	8	0.101
5219.4	1915.9	21.8	20	8.23	0.115
5220.2	1915.6	31.9	20	8.47	0.129
5221	1915.3	40.5	20	8.73	0.142
5222	1915	47.3	20	9.01	0.156
5222.2	1914.9	0.4	30	7.86	0.093
5222.6	1914.7	5	30	8	0.101
5223.4	1914.5	15.7	30	8.23	0.115
5224.2	1914.2	25.2	30	8.48	0.129
5225.1	1913.9	33.8	30	8.74	0.142
5226	1913.5	40.9	30	9.02	0.156
5226.6	1913.3	0.7	40	7.97	0.1
5227.4	1913	9.3	40	8.21	0.115
5228.2	1912.7	18.7	40	8.45	0.129
5229.1	1912.4	26.9	40	8.72	0.143
5230.1	1912	33.8	40	9	0.156
5231.1	1911.6	0.8	50	8.11	0.109
5232.3	1911.2	12.1	50	8.45	0.129
5233.2	1910.9	19.9	50	8.72	0.143

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#sbcw26812 DN

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
5234.3	1910.5	26.5	50	9.01	0.156

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

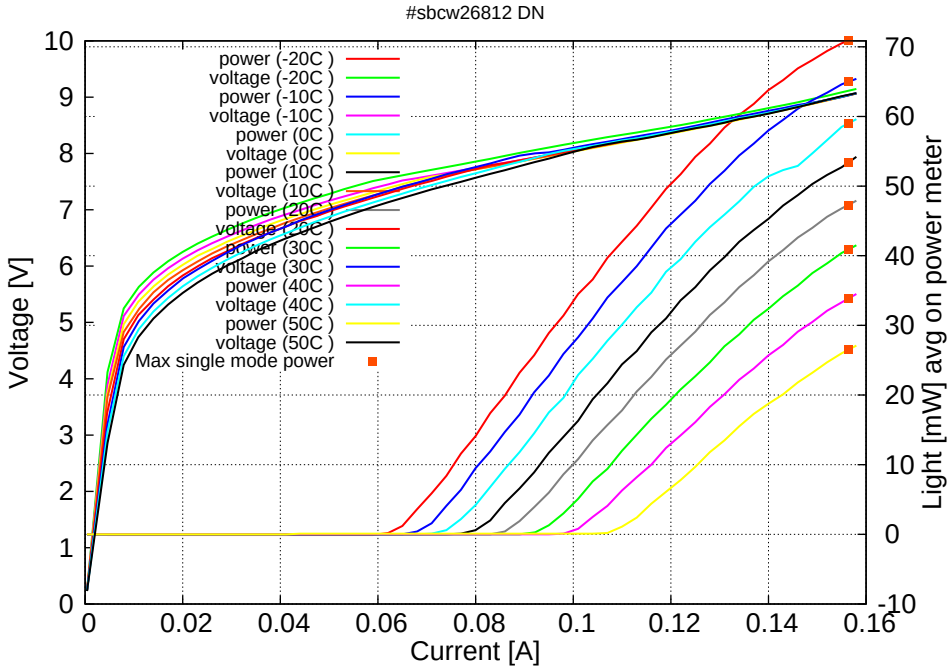

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.06A / Vth=7.6V (2-wires measurements). Maximum operation current: 0.16A for all temperatures.

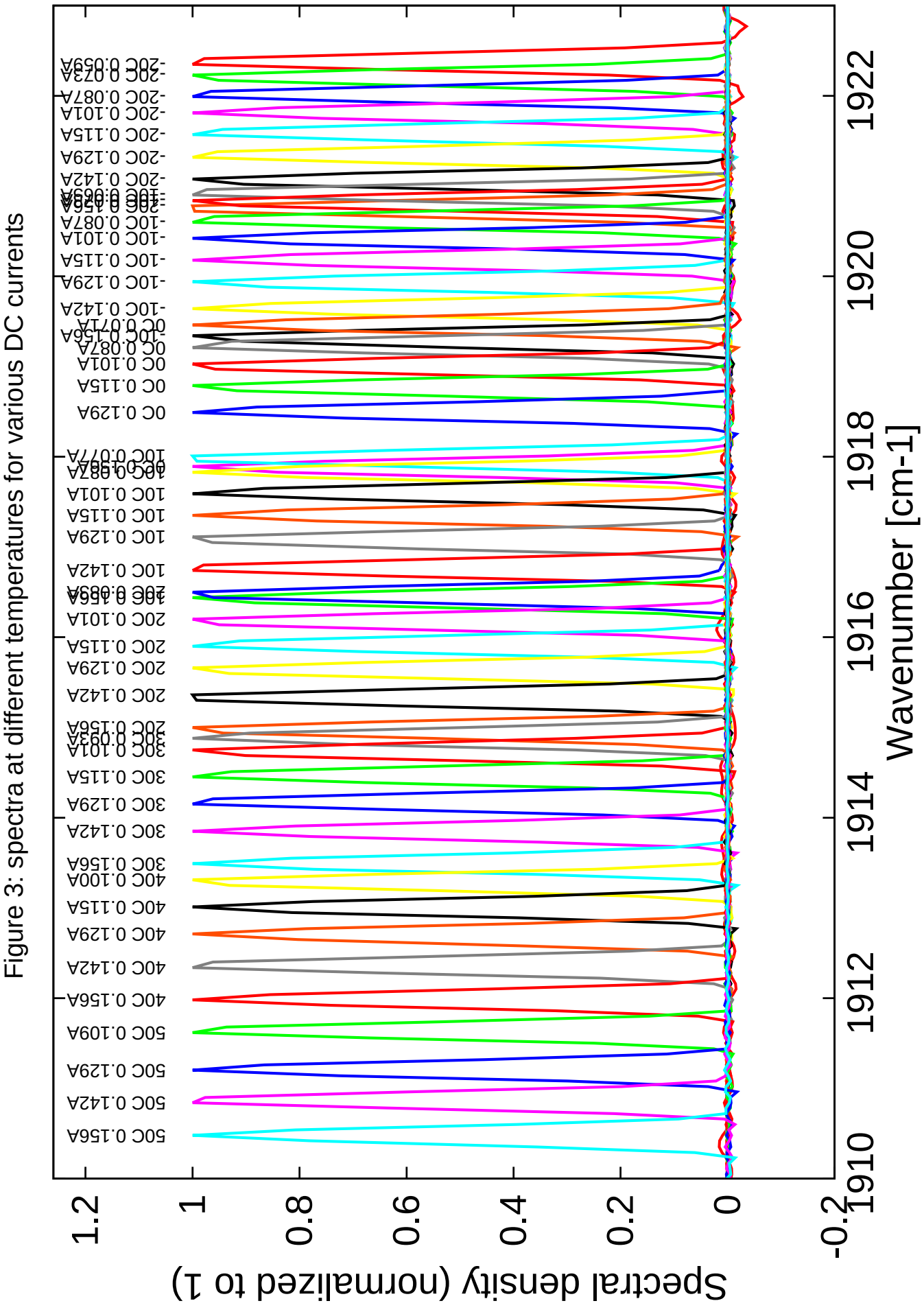

Figure 3: spectra at different temperatures for various DC currents