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Datasheet for #sbcw25611 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.

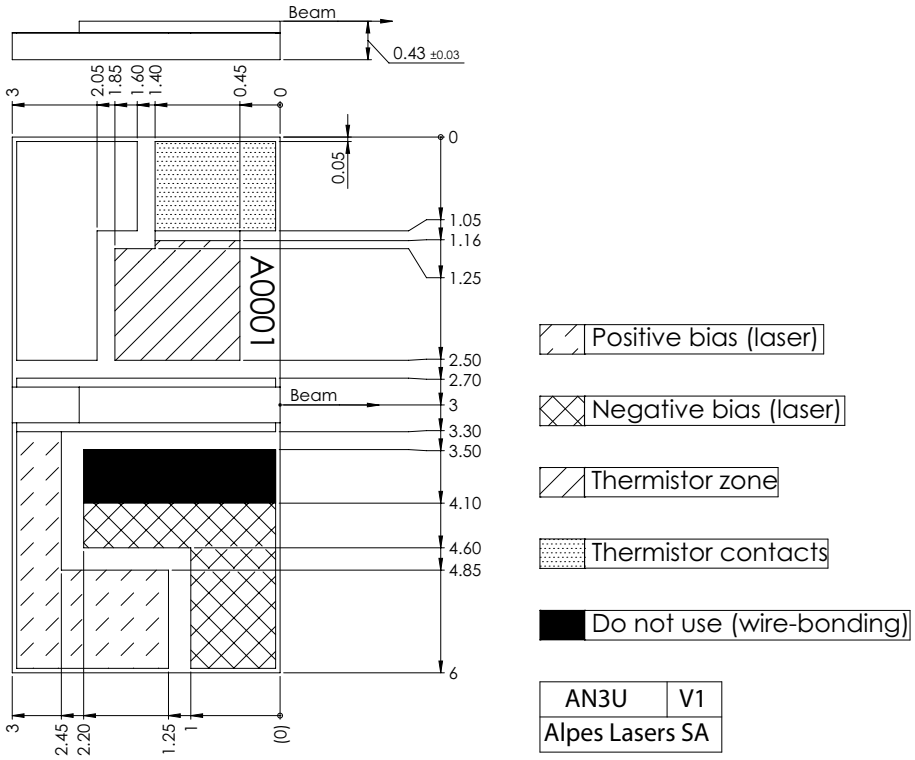

Figure 1: Mechanical and electrical interface for #sbcw25611 DN (please note that AlN submount numbering is A0ZFM)

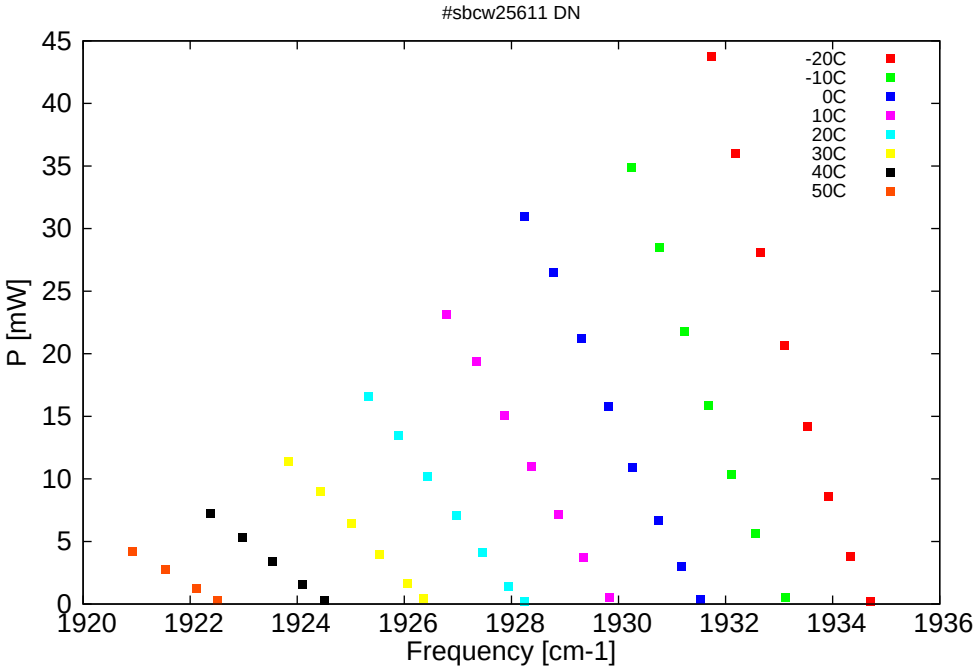

Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

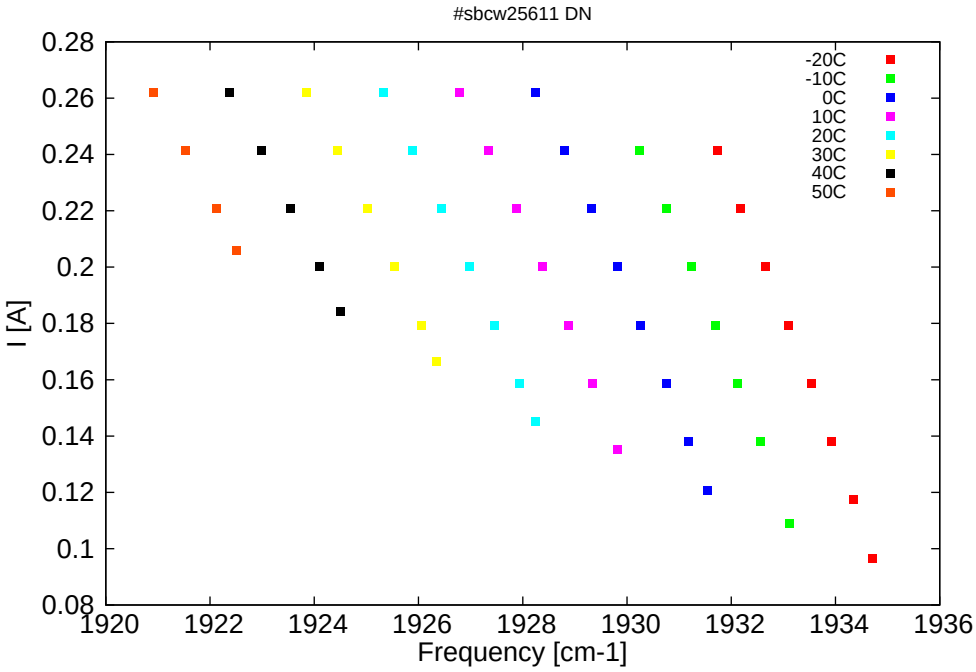

Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
5168.7	1934.7	0.2	-20	7.44	0.097
5169.7	1934.3	3.8	-20	7.64	0.117
5170.8	1933.9	8.6	-20	7.83	0.138
5171.9	1933.5	14.2	-20	8.02	0.159
5173	1933.1	20.7	-20	8.2	0.179
5174.2	1932.7	28.1	-20	8.39	0.2
5175.5	1932.2	36	-20	8.58	0.221
5176.7	1931.7	43.7	-20	8.78	0.241
5173	1933.1	0.5	-10	7.49	0.109
5174.5	1932.6	5.7	-10	7.76	0.138
5175.7	1932.1	10.3	-10	7.95	0.159
5176.8	1931.7	15.8	-10	8.14	0.179
5178	1931.2	21.7	-10	8.32	0.2
5179.3	1930.8	28.5	-10	8.51	0.221
5180.7	1930.2	34.9	-10	8.71	0.241
5177.2	1931.5	0.4	0	7.53	0.121
5178.2	1931.2	3	0	7.69	0.138
5179.3	1930.8	6.7	0	7.88	0.159
5180.7	1930.3	10.9	0	8.07	0.179
5181.8	1929.8	15.8	0	8.26	0.2
5183.2	1929.3	21.2	0	8.44	0.221
5184.6	1928.8	26.5	0	8.64	0.241
5186	1928.3	31	0	8.84	0.262
5181.8	1929.8	0.5	10	7.6	0.135
5183.1	1929.3	3.7	10	7.81	0.159
5184.3	1928.9	7.1	10	8	0.179
5185.7	1928.4	11	10	8.18	0.2
5187	1927.9	15.1	10	8.37	0.221
5188.5	1927.3	19.4	10	8.56	0.241
5190	1926.8	23.1	10	8.76	0.262
5186.1	1928.2	0.2	20	7.63	0.145
5186.9	1927.9	1.4	20	7.74	0.159
5188.2	1927.5	4.1	20	7.92	0.179
5189.5	1927	7	20	8.11	0.2
5190.9	1926.4	10.2	20	8.29	0.221
5192.4	1925.9	13.5	20	8.48	0.241
5193.9	1925.3	16.6	20	8.68	0.262
5191.2	1926.4	0.5	30	7.74	0.166
5192	1926.1	1.7	30	7.85	0.179
5193.4	1925.5	3.9	30	8.03	0.2
5194.8	1925	6.4	30	8.21	0.221
5196.3	1924.4	9	30	8.4	0.241
5197.9	1923.8	11.3	30	8.59	0.262
5196.2	1924.5	0.3	40	7.82	0.184
5197.2	1924.1	1.5	40	7.96	0.2
5198.7	1923.5	3.4	40	8.13	0.221
5200.3	1923	5.3	40	8.32	0.241
5201.9	1922.4	7.2	40	8.5	0.262
5201.5	1922.5	0.3	50	8.19	0.206

continued on next page

λ[nm]	ν[cm^{-1}]	P[mW]	Temp[°C]	U$_{LASER}$[V]	I[A]
5202.6	1922.1	1.2	50	8.32	0.221
5204.2	1921.5	2.7	50	8.52	0.241
5205.8	1920.9	4.2	50	8.72	0.262

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

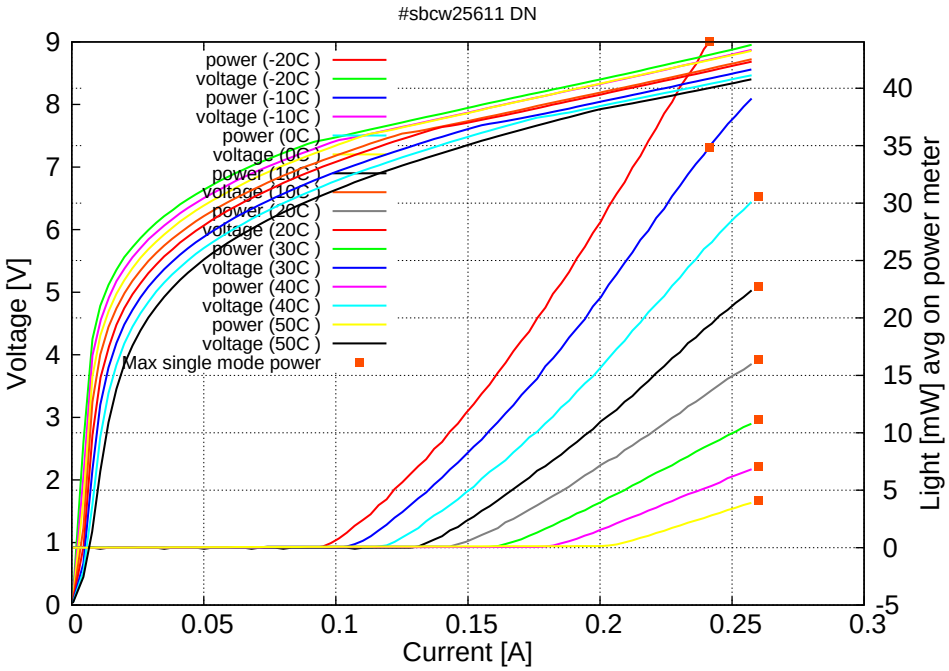

Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: Ith=0.10A / Vth=7.4V (2-wires measurements). Maximum operation current: 0.24A between -20C and -10C, 0.26A between 0C and 50C.

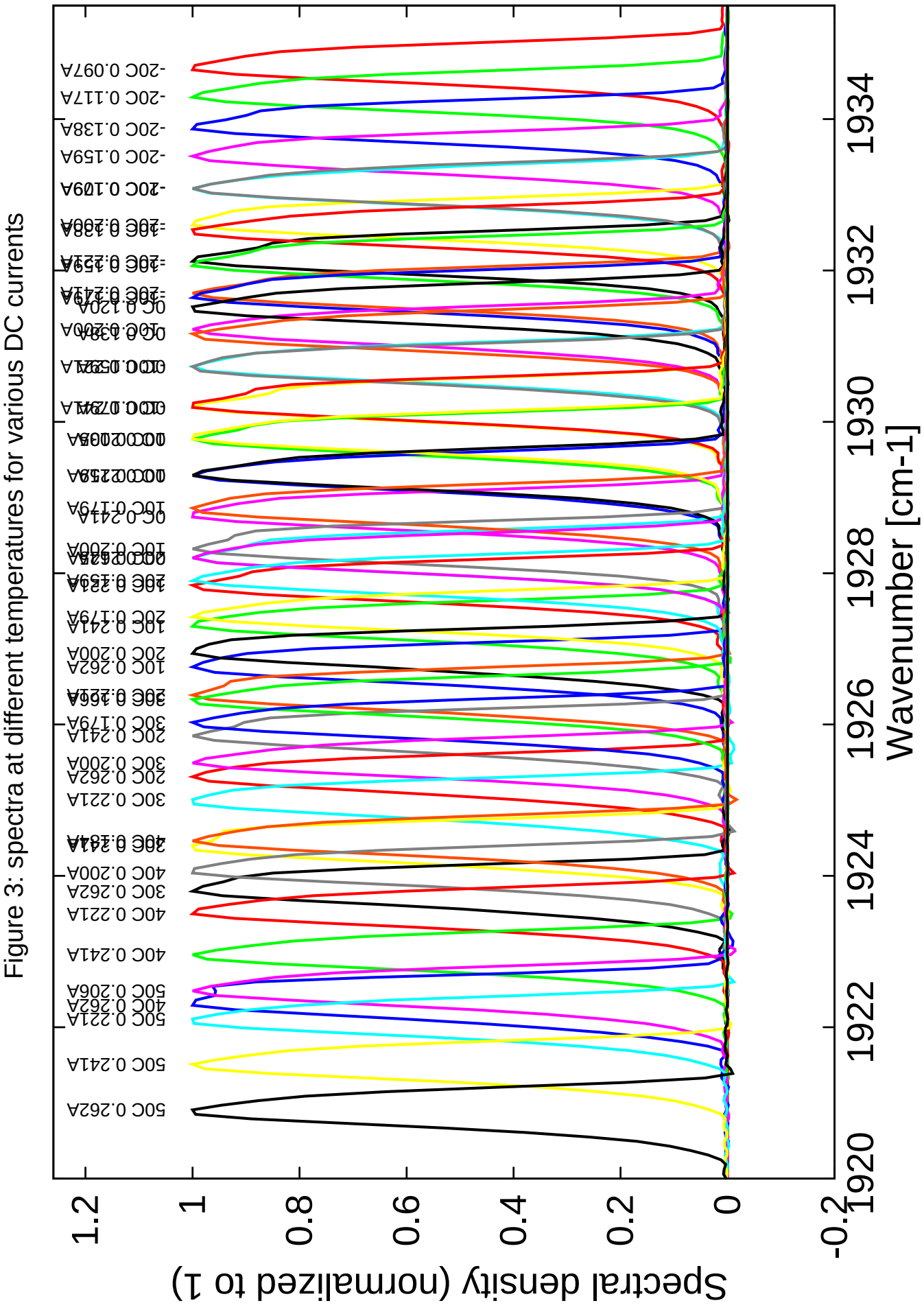

Figure 3: spectra at different temperatures for various DC currents