

Datasheet for #sbcw26126 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.

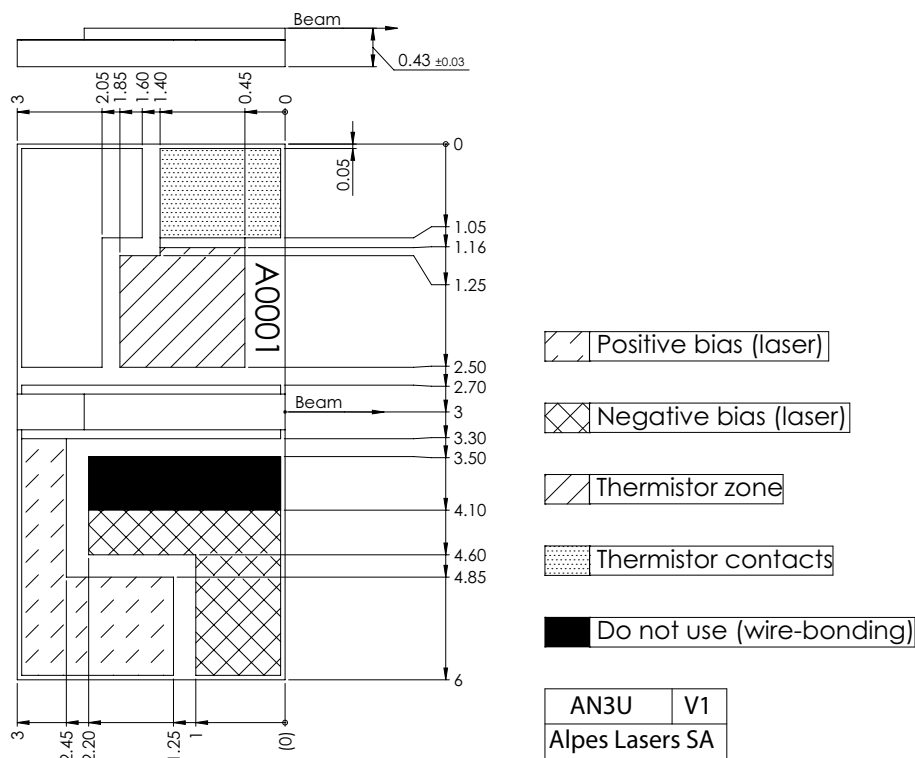


Figure 1: Mechanical and electrical interface for #sbcw26126 DN (please note that AlN submount numbering is A0YD4)

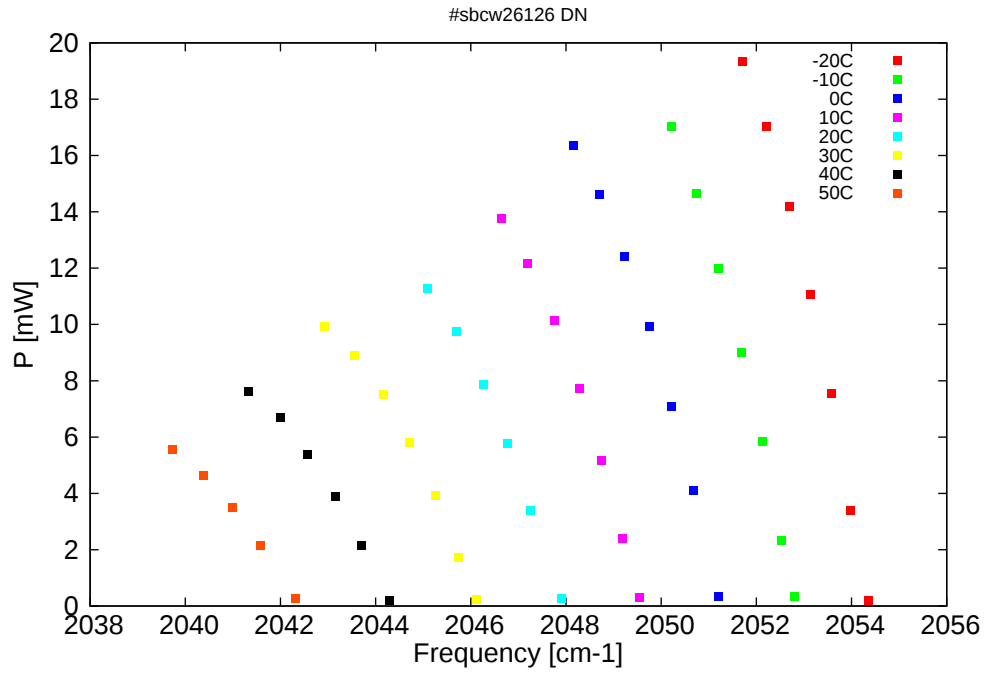


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

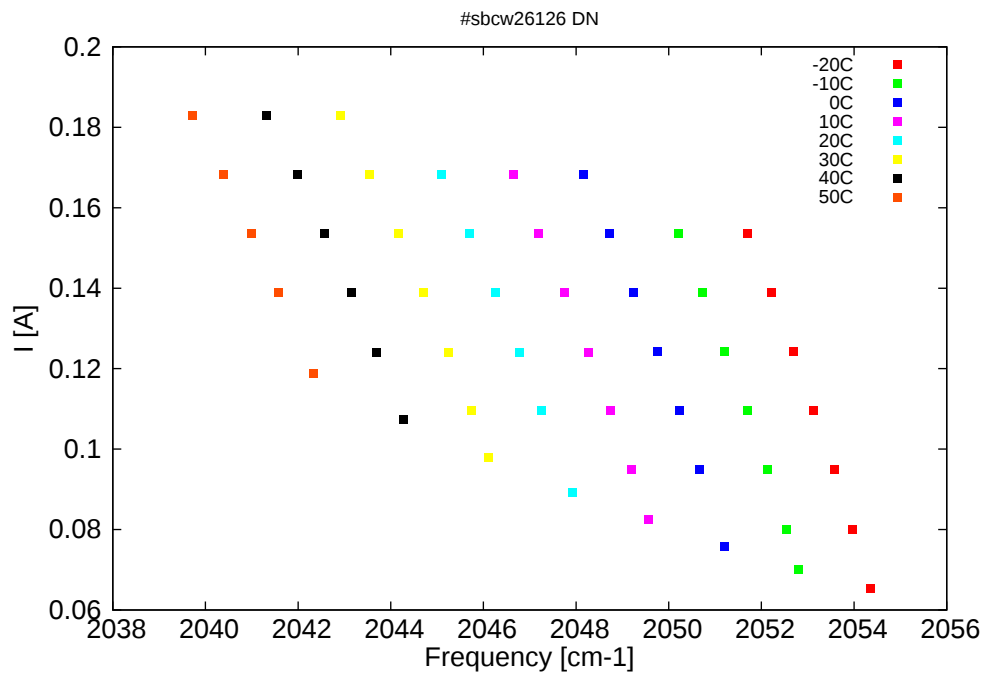


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4867.7	2054.4	0.2	-20	11.17	0.065
4868.6	2054	3.4	-20	11.51	0.08
4869.6	2053.6	7.5	-20	11.83	0.095
4870.6	2053.1	11.1	-20	12.14	0.11
4871.7	2052.7	14.2	-20	12.45	0.124
4872.8	2052.2	17	-20	12.76	0.139
4874	2051.7	19.3	-20	13.09	0.154
4871.4	2052.8	0.3	-10	11.15	0.07
4872	2052.5	2.3	-10	11.37	0.08
4873	2052.1	5.8	-10	11.69	0.095
4874	2051.7	9	-10	11.99	0.11
4875.2	2051.2	12	-10	12.29	0.124
4876.3	2050.7	14.6	-10	12.59	0.139
4877.5	2050.2	17	-10	12.89	0.154
4875.2	2051.2	0.3	0	11.16	0.076
4876.5	2050.7	4.1	0	11.55	0.095
4877.5	2050.2	7.1	0	11.85	0.11
4878.6	2049.7	9.9	0	12.14	0.124
4879.9	2049.2	12.4	0	12.43	0.139
4881.1	2048.7	14.6	0	12.72	0.154
4882.4	2048.2	16.4	0	13.03	0.168
4879.1	2049.6	0.3	10	11.2	0.083
4880	2049.2	2.4	10	11.44	0.095
4881	2048.7	5.2	10	11.73	0.11
4882.2	2048.3	7.7	10	12.01	0.124
4883.4	2047.8	10.2	10	12.3	0.139
4884.7	2047.2	12.2	10	12.58	0.154
4886.1	2046.6	13.8	10	12.87	0.168
4883	2047.9	0.3	20	11.24	0.089
4884.6	2047.3	3.4	20	11.62	0.11
4885.8	2046.8	5.8	20	11.9	0.124
4886.9	2046.3	7.9	20	12.17	0.139
4888.3	2045.7	9.8	20	12.45	0.154
4889.7	2045.1	11.3	20	12.73	0.168
4887.3	2046.1	0.2	30	11.34	0.098
4888.2	2045.7	1.7	30	11.54	0.11
4889.4	2045.2	3.9	30	11.82	0.124
4890.7	2044.7	5.8	30	12.09	0.139
4892	2044.2	7.5	30	12.37	0.154
4893.5	2043.5	8.9	30	12.64	0.168
4895	2042.9	9.9	30	12.92	0.183
4891.7	2044.3	0.2	40	11.46	0.107
4893.1	2043.7	2.2	40	11.76	0.124
4894.4	2043.2	3.9	40	12.03	0.139
4895.8	2042.6	5.4	40	12.31	0.154
4897.2	2042	6.7	40	12.57	0.168
4898.8	2041.3	7.6	40	12.85	0.183
4896.4	2042.3	0.3	50	11.59	0.119
4898.2	2041.6	2.1	50	11.94	0.139

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λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4899.6	2041	3.5	50	12.21	0.154
4901	2040.4	4.7	50	12.47	0.168
4902.6	2039.7	5.6	50	12.74	0.183

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

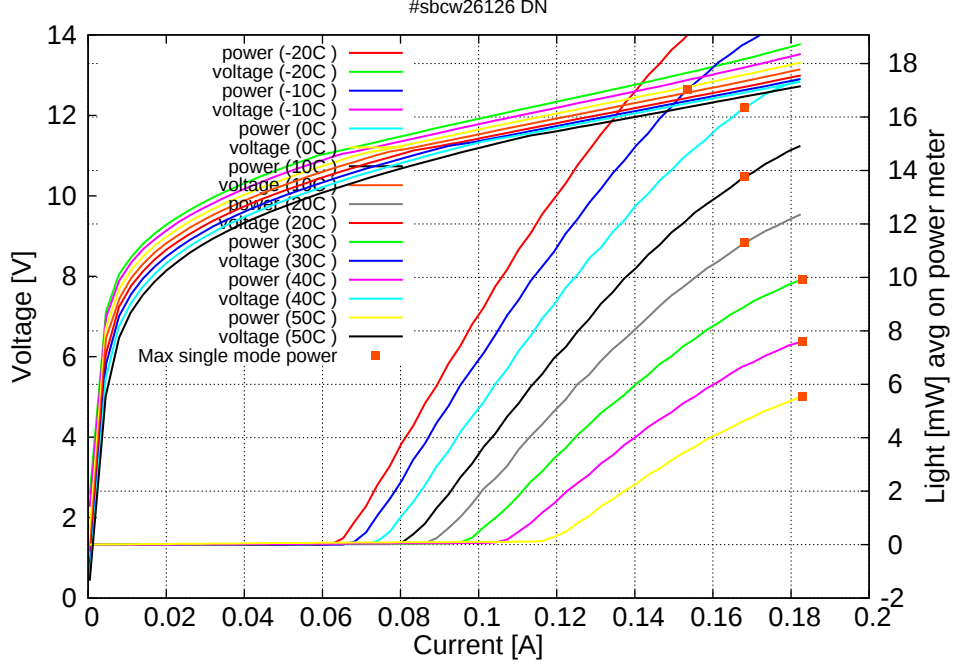


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=11.3V$ (2-wires measurements). Maximum operation current: 0.155A between -20C and -10C, 0.17A between 0C and 20C, 0.185A between 30C and 50C.

