

Datasheet for #sbcw26518 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.

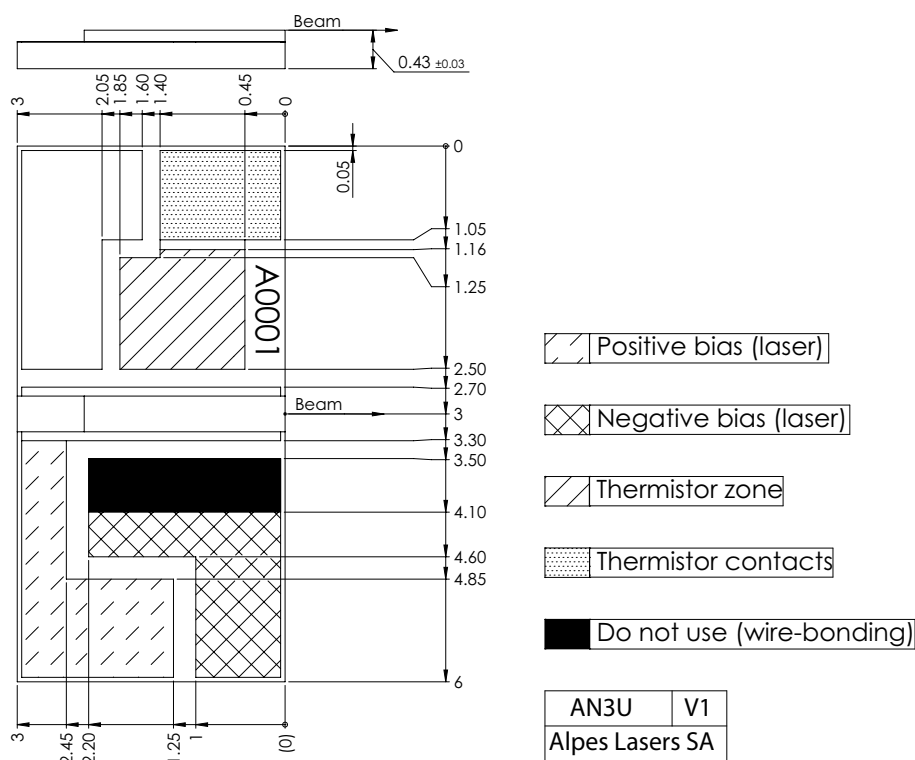


Figure 1: Mechanical and electrical interface for #sbcw26518 DN (please note that AlN submount numbering is A0V02)

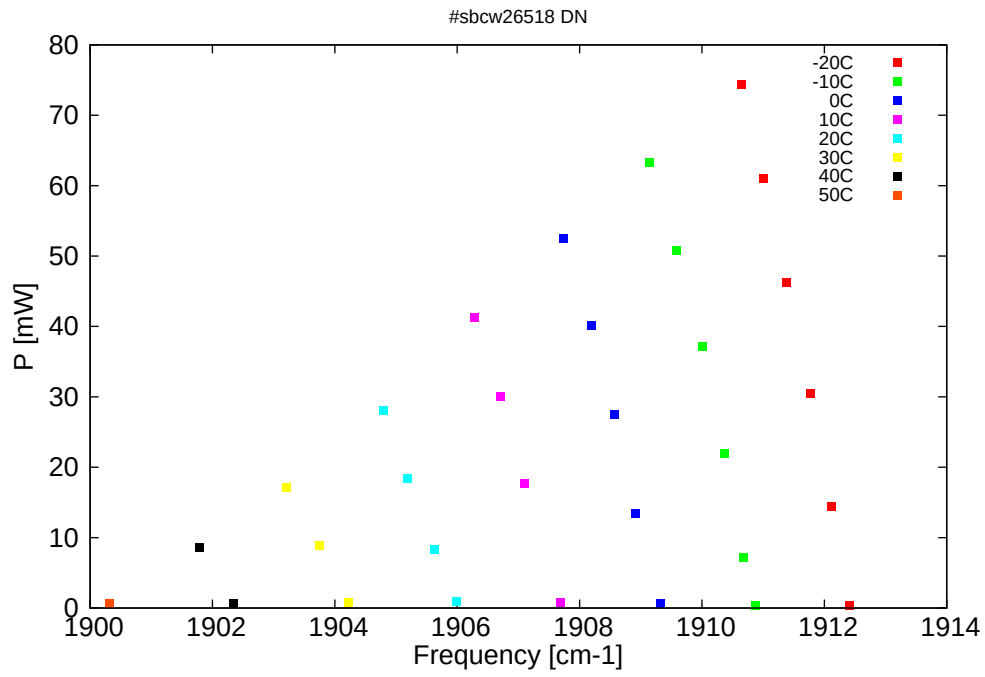


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

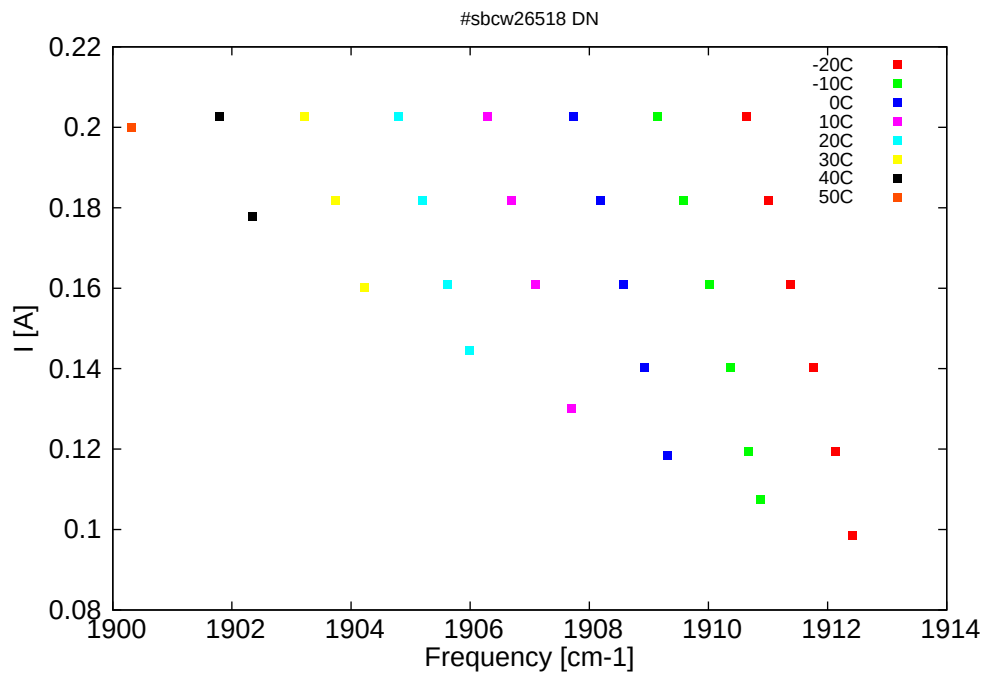


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5229	1912.4	0.3	-20	7.61	0.099
5229.8	1912.1	14.4	-20	7.79	0.119
5230.8	1911.8	30.5	-20	7.99	0.14
5231.8	1911.4	46.3	-20	8.18	0.161
5232.8	1911	61	-20	8.37	0.182
5233.8	1910.6	74.4	-20	8.57	0.203
5233.2	1910.9	0.4	-10	7.63	0.108
5233.7	1910.7	7.1	-10	7.74	0.119
5234.6	1910.4	22	-10	7.93	0.14
5235.6	1910	37.1	-10	8.12	0.161
5236.8	1909.6	50.8	-10	8.31	0.182
5238	1909.1	63.3	-10	8.51	0.203
5237.5	1909.3	0.7	0	7.69	0.119
5238.6	1908.9	13.4	0	7.88	0.14
5239.5	1908.6	27.5	0	8.08	0.161
5240.6	1908.2	40.2	0	8.27	0.182
5241.8	1907.7	52.5	0	8.46	0.203
5241.9	1907.7	0.8	10	7.74	0.13
5243.6	1907.1	17.7	10	8.01	0.161
5244.7	1906.7	30.1	10	8.2	0.182
5245.8	1906.3	41.3	10	8.39	0.203
5246.6	1906	0.9	20	7.8	0.145
5247.6	1905.6	8.3	20	7.95	0.161
5248.8	1905.2	18.4	20	8.13	0.182
5249.9	1904.8	28.1	20	8.32	0.203
5251.5	1904.2	0.8	30	7.9	0.16
5252.8	1903.7	8.8	30	8.09	0.182
5254.3	1903.2	17.1	30	8.27	0.203
5256.7	1902.4	0.7	40	8.02	0.178
5258.2	1901.8	8.6	40	8.23	0.203
5262.3	1900.3	0.6	50	8.17	0.2

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

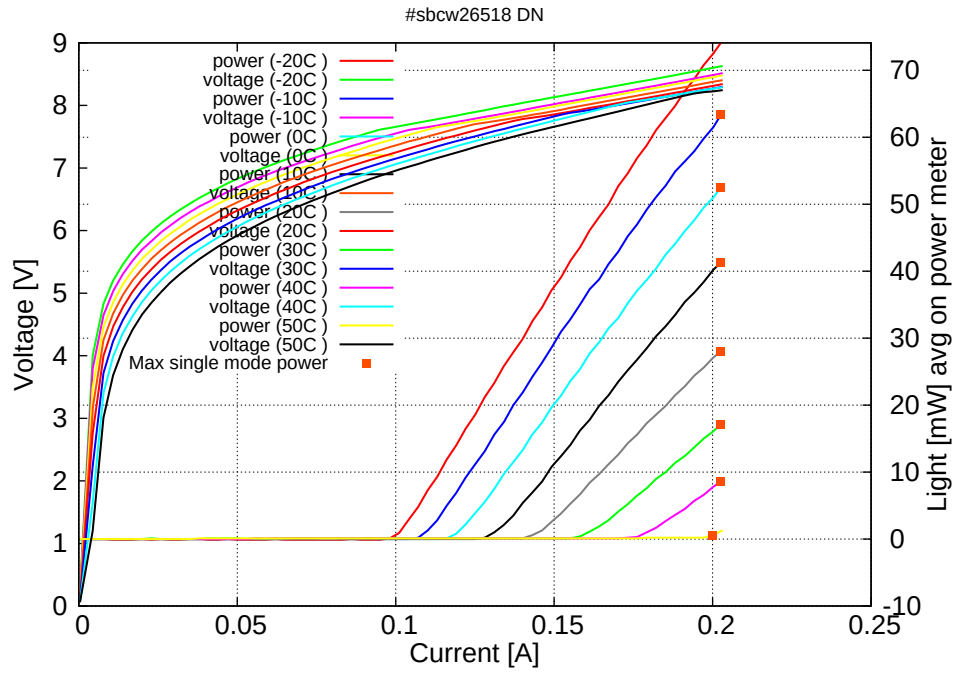


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=7.6V$ (2-wires measurements). Maximum operation current: 0.205A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

