

Datasheet for #sbcw26524 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.

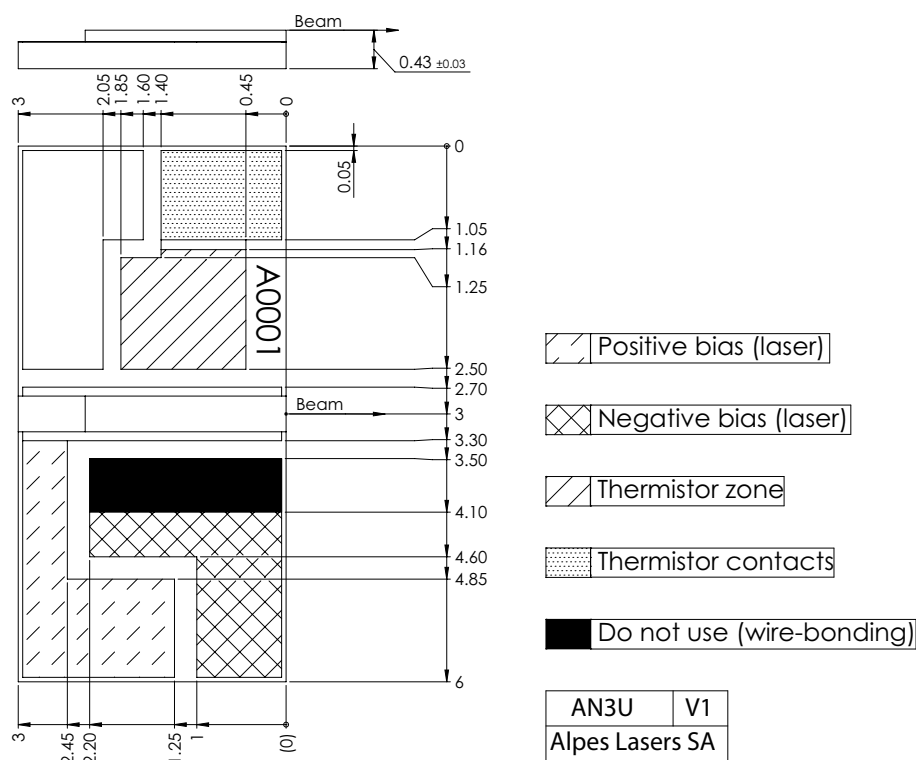


Figure 1: Mechanical and electrical interface for #sbcw26524 DN (please note that AlN submount numbering is A0YM7)

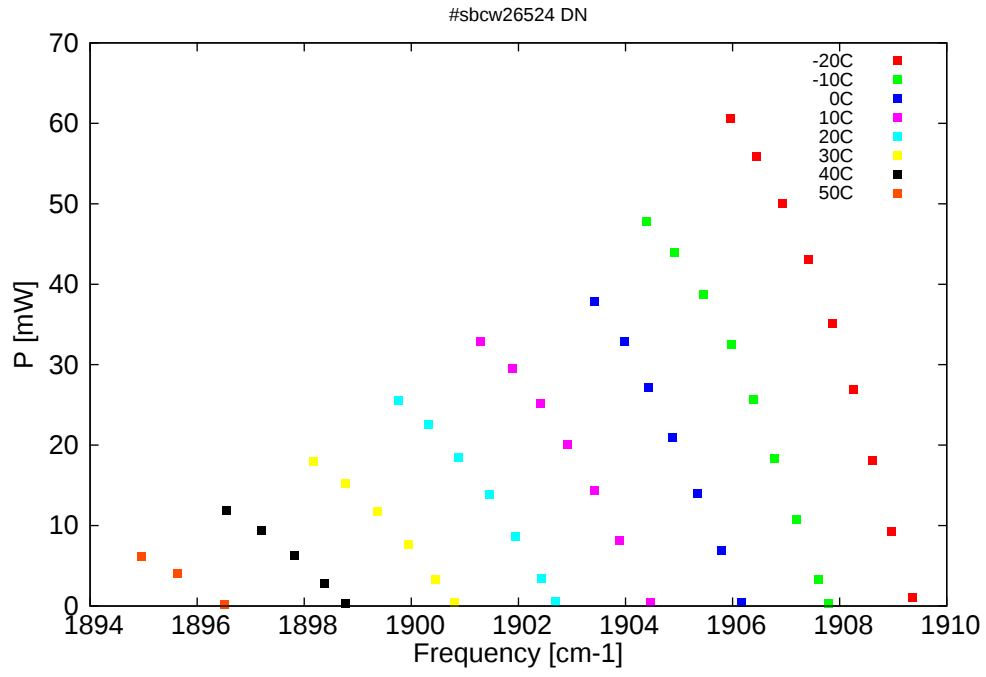


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

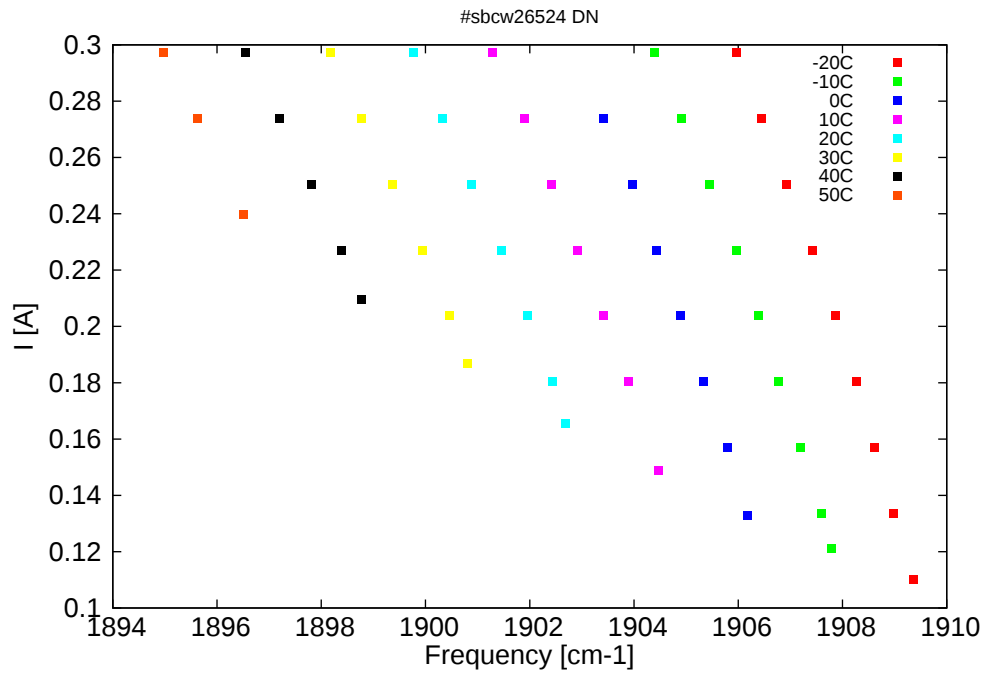


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5237.4	1909.4	1	-20	7.37	0.11
5238.4	1909	9.2	-20	7.53	0.134
5239.4	1908.6	18.1	-20	7.68	0.157
5240.4	1908.3	26.9	-20	7.84	0.18
5241.4	1907.9	35.1	-20	8	0.204
5242.7	1907.4	43	-20	8.16	0.227
5244	1906.9	50.1	-20	8.32	0.251
5245.3	1906.5	55.9	-20	8.5	0.274
5246.7	1906	60.6	-20	8.69	0.297
5241.6	1907.8	0.3	-10	7.4	0.121
5242.2	1907.6	3.3	-10	7.48	0.134
5243.3	1907.2	10.8	-10	7.63	0.157
5244.5	1906.8	18.4	-10	7.79	0.18
5245.5	1906.4	25.7	-10	7.95	0.204
5246.7	1906	32.5	-10	8.12	0.227
5248.1	1905.5	38.7	-10	8.28	0.251
5249.6	1904.9	43.9	-10	8.45	0.274
5251	1904.4	47.9	-10	8.64	0.297
5246.1	1906.2	0.5	0	7.43	0.133
5247.2	1905.8	7	0	7.59	0.157
5248.4	1905.3	13.9	0	7.75	0.18
5249.7	1904.9	20.9	0	7.9	0.204
5250.9	1904.4	27.2	0	8.07	0.227
5252.2	1904	32.9	0	8.24	0.251
5253.7	1903.4	37.9	0	8.41	0.274
5250.8	1904.5	0.4	10	7.49	0.149
5252.4	1903.9	8.2	10	7.7	0.18
5253.7	1903.4	14.4	10	7.86	0.204
5255.1	1902.9	20.1	10	8.03	0.227
5256.5	1902.4	25.2	10	8.19	0.251
5257.9	1901.9	29.6	10	8.36	0.274
5259.6	1901.3	32.8	10	8.55	0.297
5255.7	1902.7	0.5	20	7.56	0.166
5256.4	1902.4	3.4	20	7.66	0.18
5257.7	1902	8.7	20	7.82	0.204
5259.1	1901.5	13.9	20	7.99	0.227
5260.7	1900.9	18.5	20	8.15	0.251
5262.3	1900.3	22.5	20	8.32	0.274
5263.8	1899.8	25.6	20	8.5	0.297
5260.9	1900.8	0.4	30	7.67	0.187
5261.9	1900.5	3.3	30	7.78	0.204
5263.3	1899.9	7.6	30	7.94	0.227
5264.9	1899.4	11.7	30	8.11	0.251
5266.6	1898.8	15.2	30	8.28	0.274
5268.2	1898.2	18	30	8.46	0.297
5266.6	1898.8	0.3	40	7.78	0.21
5267.6	1898.4	2.8	40	7.9	0.227
5269.2	1897.8	6.2	40	8.07	0.251
5270.9	1897.2	9.4	40	8.24	0.274

continued on next page

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5272.8	1896.5	11.9	40	8.41	0.297
5272.8	1896.5	0.2	50	7.96	0.24
5275.3	1895.6	4	50	8.19	0.274
5277.1	1895	6.2	50	8.34	0.297

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

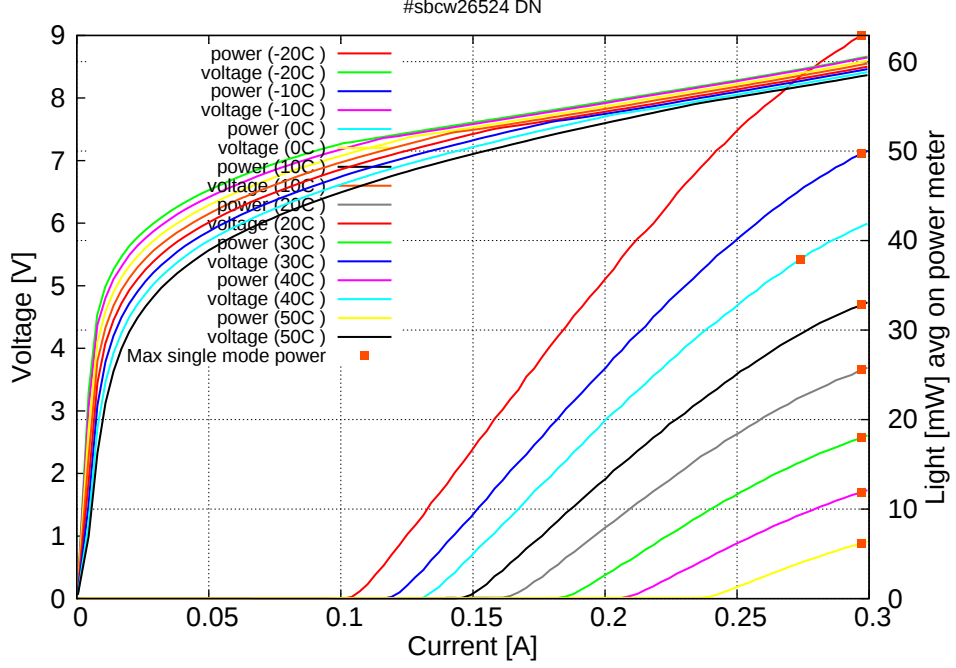


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20°C: $I_{th}=0.11\text{A}$ / $V_{th}=7.4\text{V}$ (2-wires measurements). Maximum operation current: 0.30A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

