

Datasheet for #sbcw26491 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.

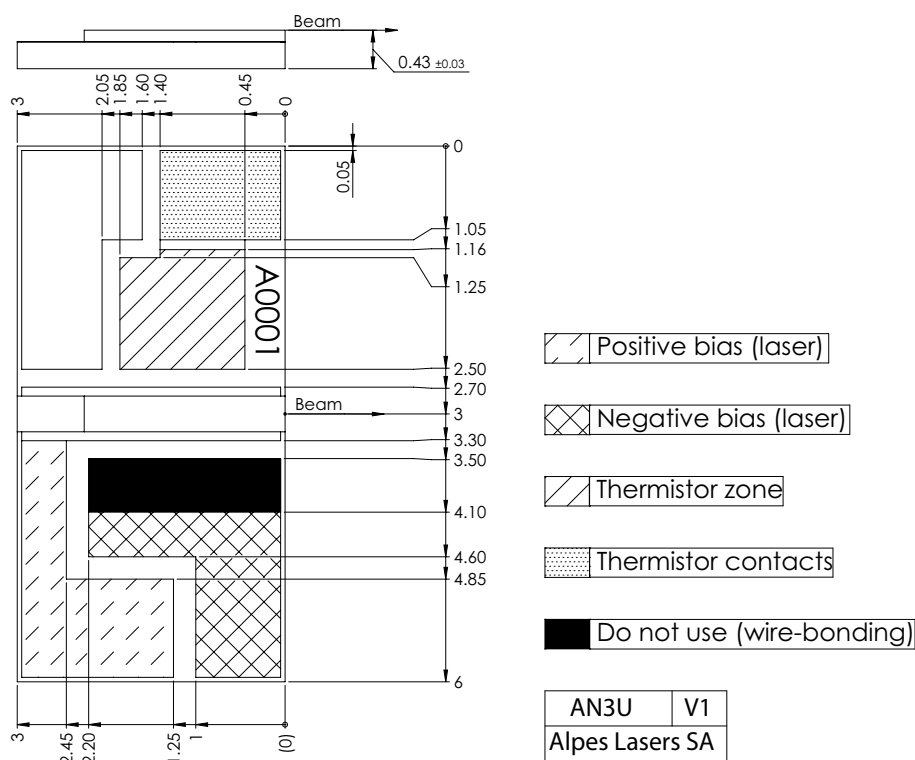


Figure 1: Mechanical and electrical interface for #sbcw26491 DN (please note that AlN submount numbering is A0VMC)

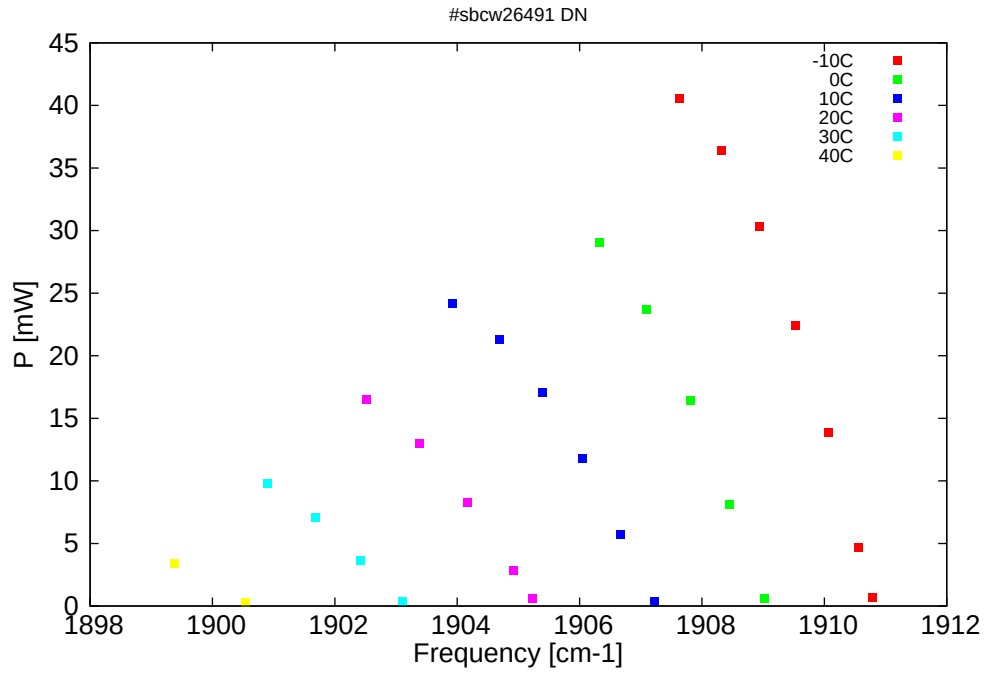


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

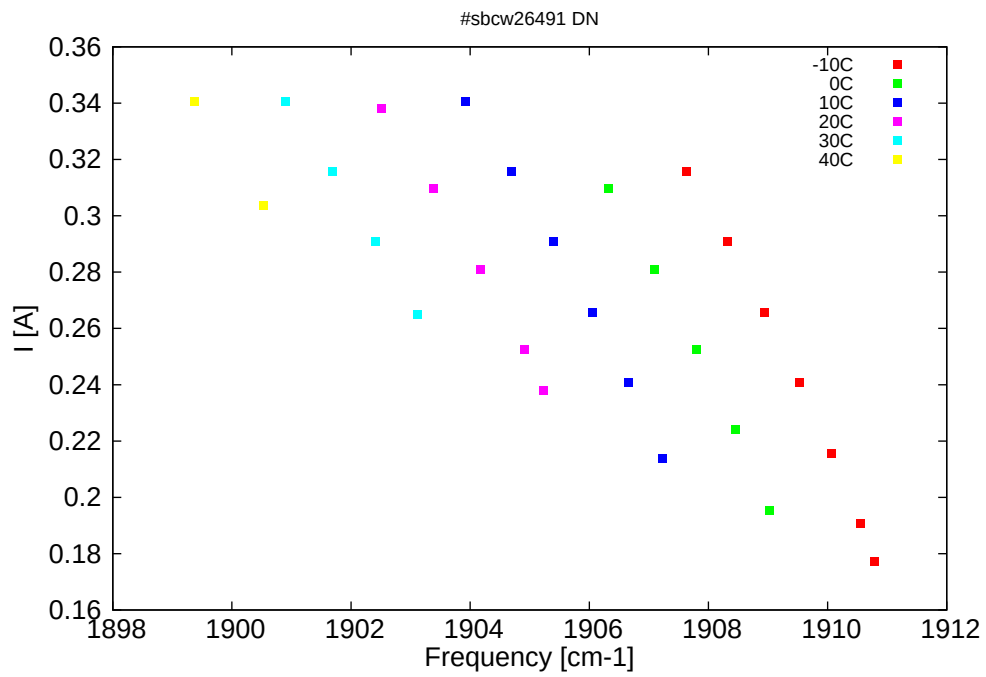


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5233.4	1910.8	0.7	-10	8.13	0.177
5234.1	1910.6	4.7	-10	8.21	0.191
5235.4	1910.1	13.8	-10	8.4	0.216
5236.9	1909.5	22.5	-10	8.6	0.241
5238.5	1908.9	30.3	-10	8.8	0.266
5240.2	1908.3	36.4	-10	9.01	0.291
5242.1	1907.6	40.5	-10	9.23	0.316
5238.3	1909	0.6	0	8.18	0.196
5239.9	1908.4	8.2	0	8.38	0.224
5241.6	1907.8	16.4	0	8.6	0.253
5243.6	1907.1	23.7	0	8.83	0.281
5245.7	1906.3	29.1	0	9.07	0.31
5243.2	1907.2	0.4	10	8.23	0.214
5244.8	1906.7	5.8	10	8.41	0.241
5246.5	1906	11.8	10	8.6	0.266
5248.2	1905.4	17.1	10	8.8	0.291
5250.2	1904.7	21.3	10	9.01	0.316
5252.3	1903.9	24.2	10	9.22	0.341
5248.7	1905.2	0.6	20	8.32	0.238
5249.6	1904.9	2.8	20	8.42	0.253
5251.6	1904.2	8.3	20	8.63	0.281
5253.8	1903.4	13	20	8.85	0.31
5256.2	1902.5	16.5	20	9.09	0.338
5254.6	1903.1	0.4	30	8.43	0.265
5256.5	1902.4	3.6	30	8.6	0.291
5258.5	1901.7	7.1	30	8.79	0.316
5260.7	1900.9	9.8	30	8.99	0.341
5261.7	1900.5	0.3	40	8.61	0.304
5264.9	1899.4	3.4	40	8.88	0.341

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

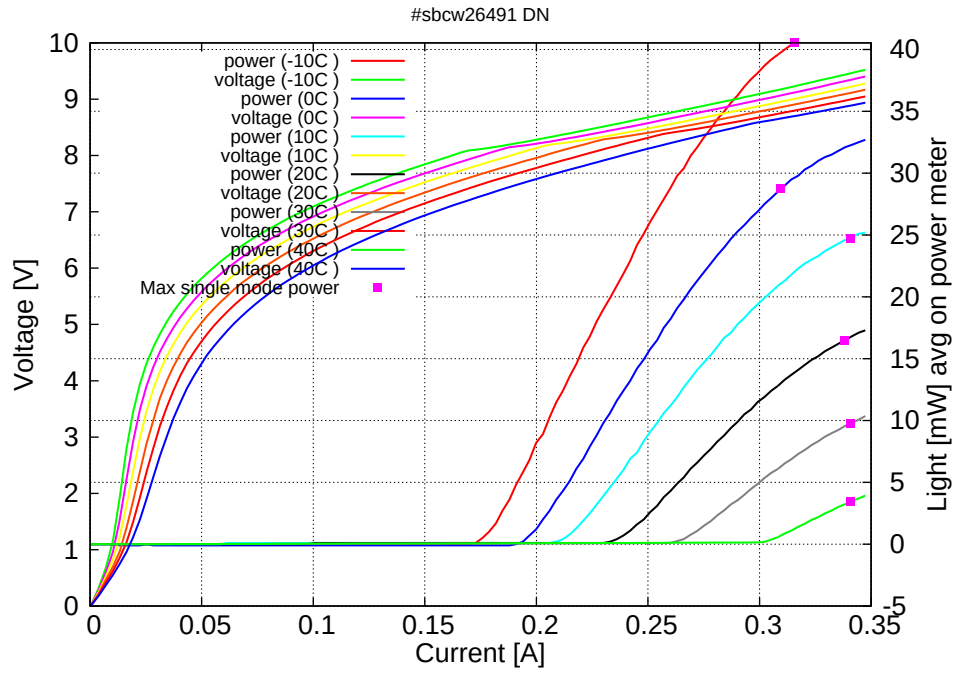


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.18A$ / $V_{th}=8.1V$ (2-wires measurements). Maximum operation current: 0.32A between -10C and 0C, 0.34A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

