

Datasheet for #sbcw26482 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.

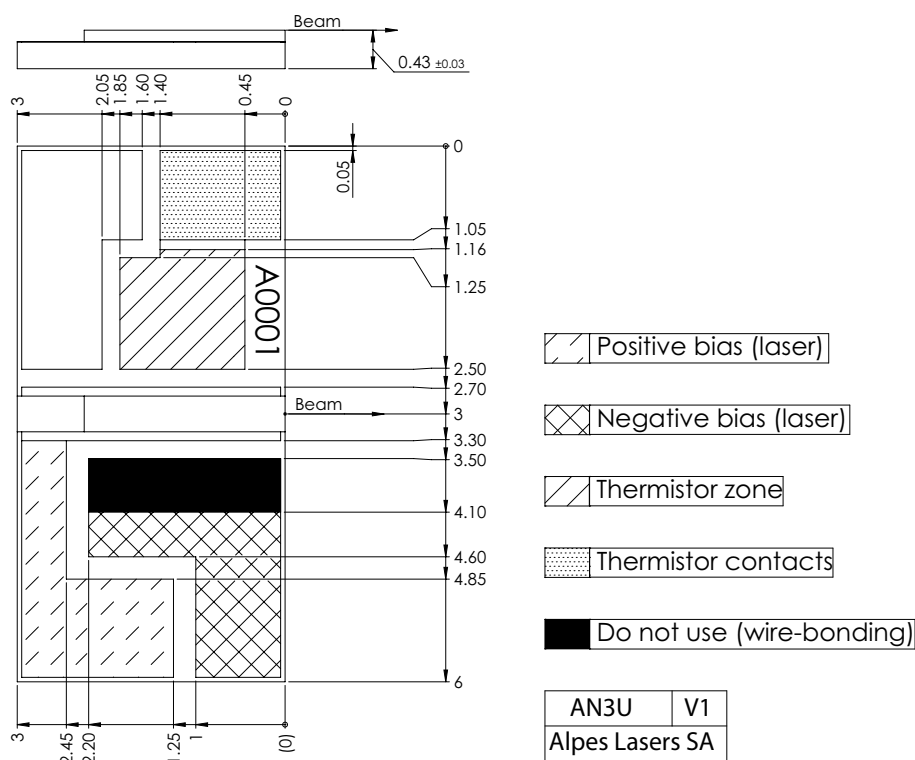


Figure 1: Mechanical and electrical interface for #sbcw26482 DN (please note that AlN submount numbering is A0V9C)

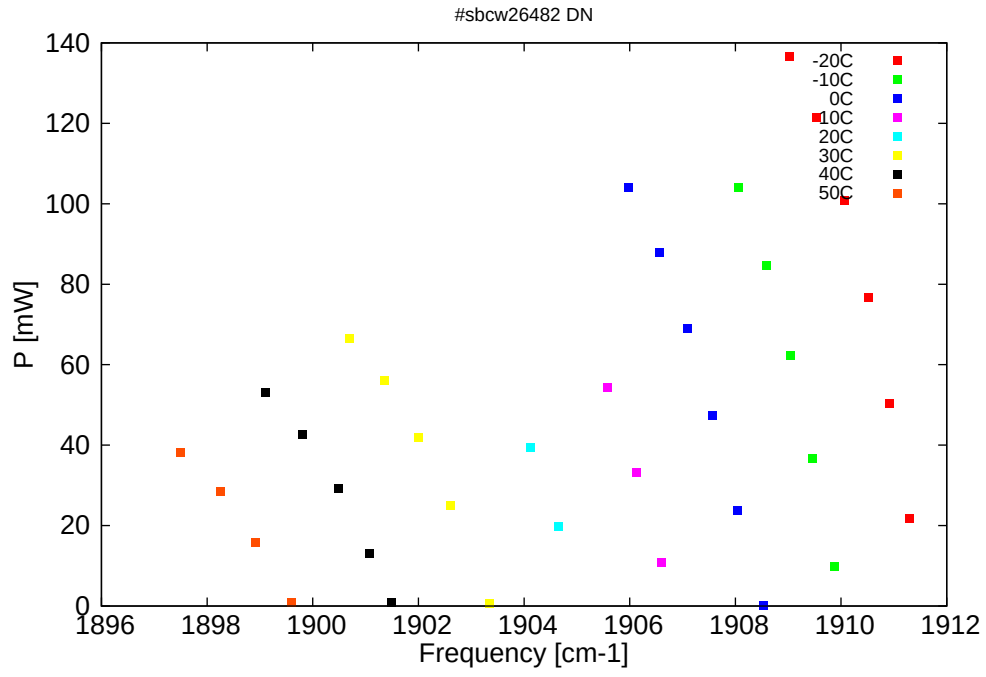


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

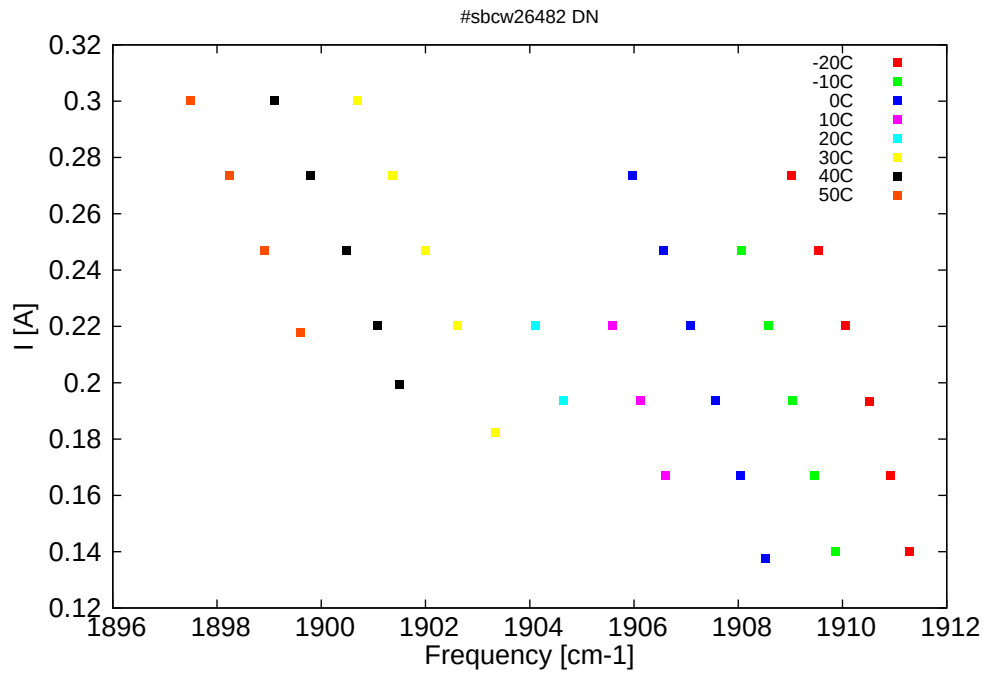


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5232.1	1911.3	21.7	-20	7.77	0.14
5233.1	1910.9	50.3	-20	7.97	0.167
5234.2	1910.5	76.6	-20	8.16	0.193
5235.4	1910.1	100.9	-20	8.36	0.22
5236.9	1909.5	121.3	-20	8.56	0.247
5238.3	1909	136.6	-20	8.79	0.274
5236	1909.9	9.8	-10	7.72	0.14
5237.1	1909.5	36.8	-10	7.91	0.167
5238.2	1909	62.4	-10	8.12	0.194
5239.5	1908.6	84.8	-10	8.31	0.22
5240.9	1908.1	104.1	-10	8.52	0.247
5239.7	1908.5	0.2	0	7.66	0.138
5241	1908	23.8	0	7.87	0.167
5242.3	1907.6	47.3	0	8.08	0.194
5243.6	1907.1	69.1	0	8.28	0.22
5245	1906.6	88	0	8.48	0.247
5246.7	1906	104.1	0	8.71	0.274
5244.9	1906.6	10.9	10	7.82	0.167
5246.3	1906.1	33.2	10	8.03	0.194
5247.7	1905.6	54.2	10	8.24	0.22
5250.3	1904.6	19.8	20	8	0.194
5251.8	1904.1	39.5	20	8.2	0.22
5253.9	1903.3	0.6	30	7.88	0.183
5255.9	1902.6	25	30	8.17	0.22
5257.6	1902	41.9	30	8.37	0.247
5259.4	1901.4	56	30	8.59	0.274
5261.2	1900.7	66.5	30	8.81	0.3
5259	1901.5	0.8	40	7.99	0.199
5260.2	1901.1	13.1	40	8.13	0.22
5261.8	1900.5	29.2	40	8.32	0.247
5263.7	1899.8	42.7	40	8.53	0.274
5265.7	1899.1	53	40	8.73	0.3
5264.3	1899.6	0.8	50	8.07	0.218
5266.2	1898.9	15.8	50	8.27	0.247
5268	1898.2	28.4	50	8.48	0.274
5270.1	1897.5	38.3	50	8.68	0.3

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

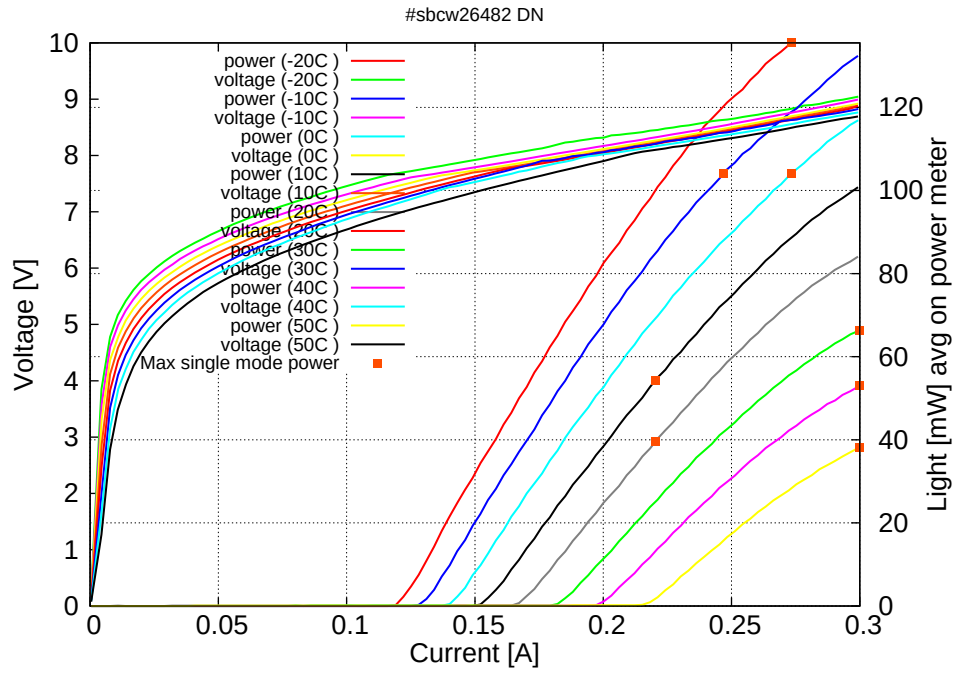


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.12A$ / $V_{th}=7.6V$ (2-wires measurements). Maximum operation current: 0.275A between -20C and 0C, 0.30A between 10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

