

Datasheet for #sbcw26492 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 #sbcw26492 DN (please note that AlN submount numbering is A0VLN)

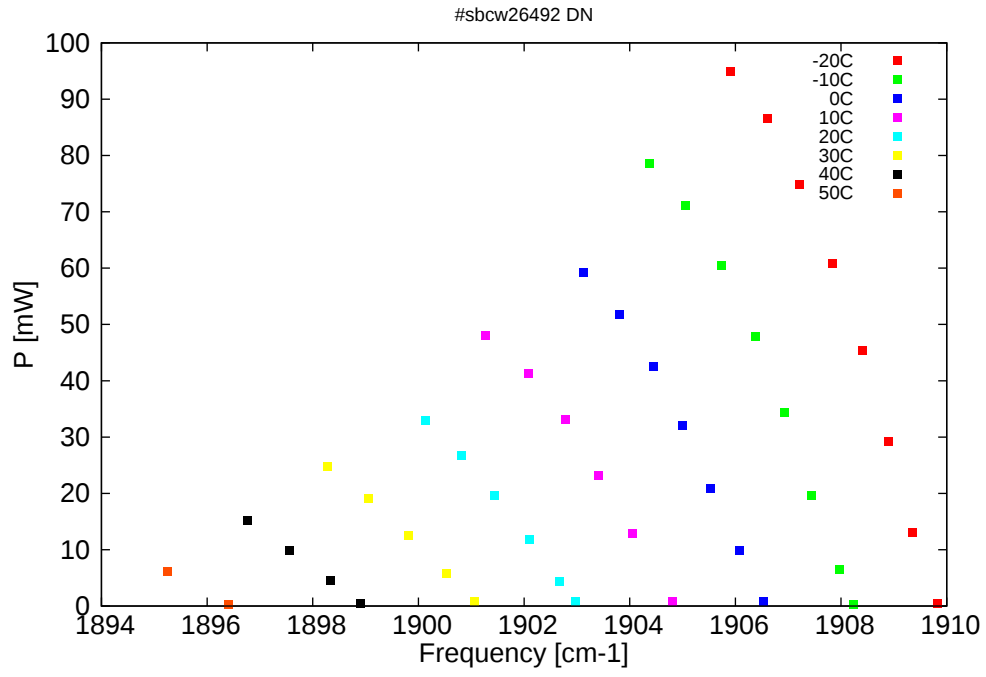


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

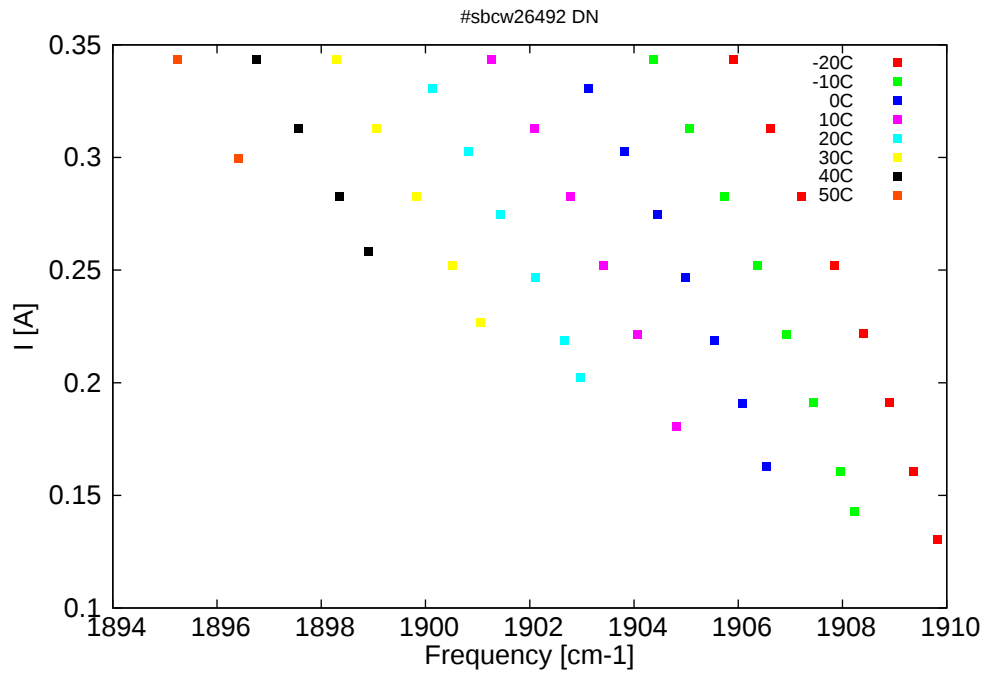


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5236.1	1909.8	0.5	-20	7.47	0.13
5237.4	1909.4	13.1	-20	7.68	0.161
5238.6	1908.9	29.2	-20	7.89	0.191
5240	1908.4	45.4	-20	8.11	0.222
5241.5	1907.8	60.9	-20	8.33	0.252
5243.2	1907.2	74.9	-20	8.55	0.283
5244.9	1906.6	86.5	-20	8.78	0.313
5246.8	1905.9	94.9	-20	9.01	0.344
5240.4	1908.2	0.4	-10	7.5	0.143
5241.2	1908	6.5	-10	7.61	0.161
5242.6	1907.4	19.7	-10	7.83	0.191
5244	1906.9	34.3	-10	8.04	0.222
5245.6	1906.4	47.9	-10	8.26	0.252
5247.3	1905.7	60.5	-10	8.48	0.283
5249.2	1905.1	71.2	-10	8.71	0.313
5251.1	1904.4	78.5	-10	8.94	0.344
5245.1	1906.5	0.8	0	7.58	0.163
5246.4	1906.1	9.8	0	7.77	0.191
5247.9	1905.5	20.8	0	7.98	0.219
5249.4	1905	32	0	8.18	0.247
5250.9	1904.5	42.5	0	8.38	0.275
5252.6	1903.8	51.7	0	8.59	0.303
5254.5	1903.1	59.2	0	8.81	0.331
5249.9	1904.8	0.8	10	7.64	0.181
5251.9	1904.1	12.9	10	7.92	0.222
5253.7	1903.4	23.2	10	8.15	0.252
5255.5	1902.8	33	10	8.36	0.283
5257.4	1902.1	41.3	10	8.59	0.313
5259.6	1901.3	48	10	8.82	0.344
5254.9	1903	0.8	20	7.75	0.202
5255.8	1902.7	4.3	20	7.85	0.219
5257.3	1902.1	11.8	20	8.05	0.247
5259.2	1901.4	19.6	20	8.26	0.275
5260.9	1900.8	26.8	20	8.46	0.303
5262.8	1900.1	32.9	20	8.68	0.331
5260.2	1901.1	0.7	30	7.82	0.227
5261.7	1900.5	5.8	30	8	0.252
5263.7	1899.8	12.5	30	8.21	0.283
5265.8	1899.1	19.1	30	8.43	0.313
5267.9	1898.3	24.7	30	8.67	0.344
5266.2	1898.9	0.5	40	8	0.258
5267.7	1898.3	4.5	40	8.16	0.283
5269.9	1897.6	9.9	40	8.38	0.313
5272.2	1896.8	15.1	40	8.61	0.344
5273.1	1896.4	0.3	50	8.25	0.3
5276.4	1895.2	6.2	50	8.55	0.344

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

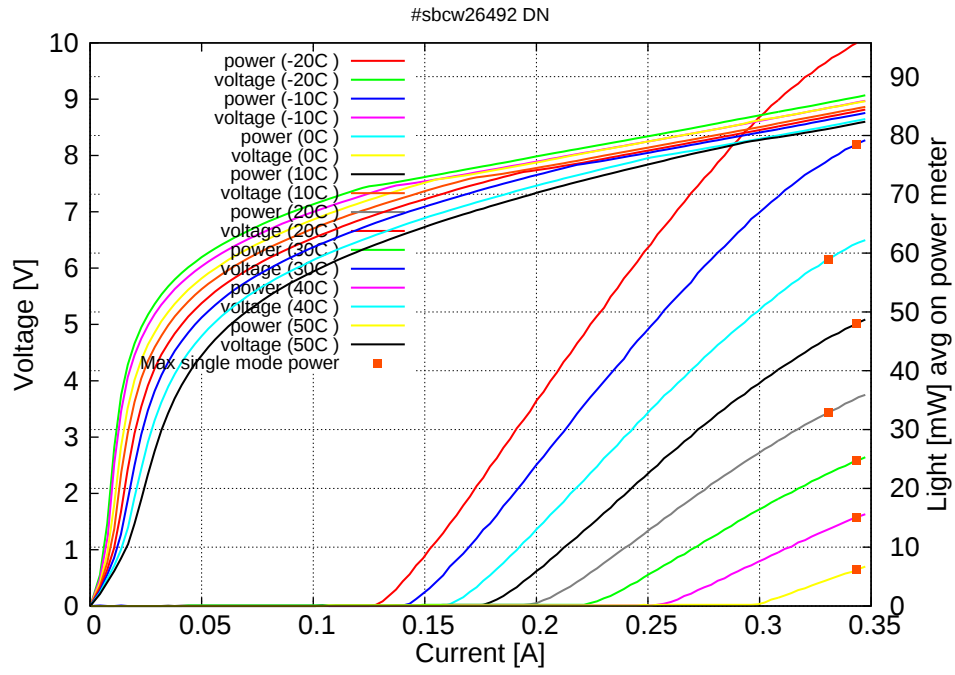


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=7.5V$ (2-wires measurements). Maximum operation current: 0.345A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

