

**Datasheet for #sbcw24792 DN**

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

**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 #sbcw24792 DN (please note that AlN submount numbering is A12U7)

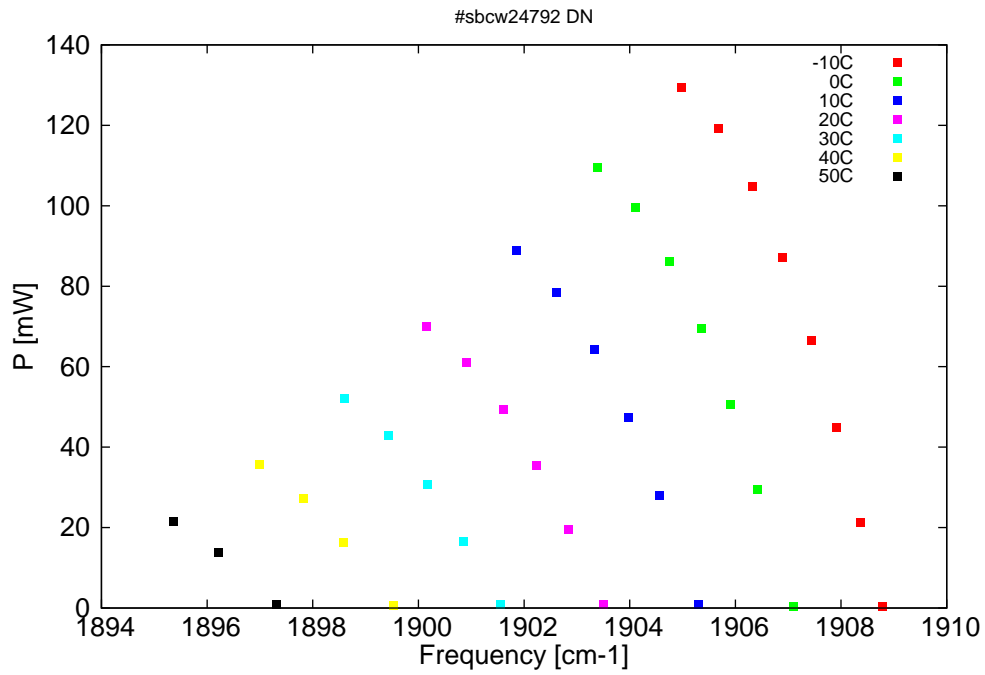


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

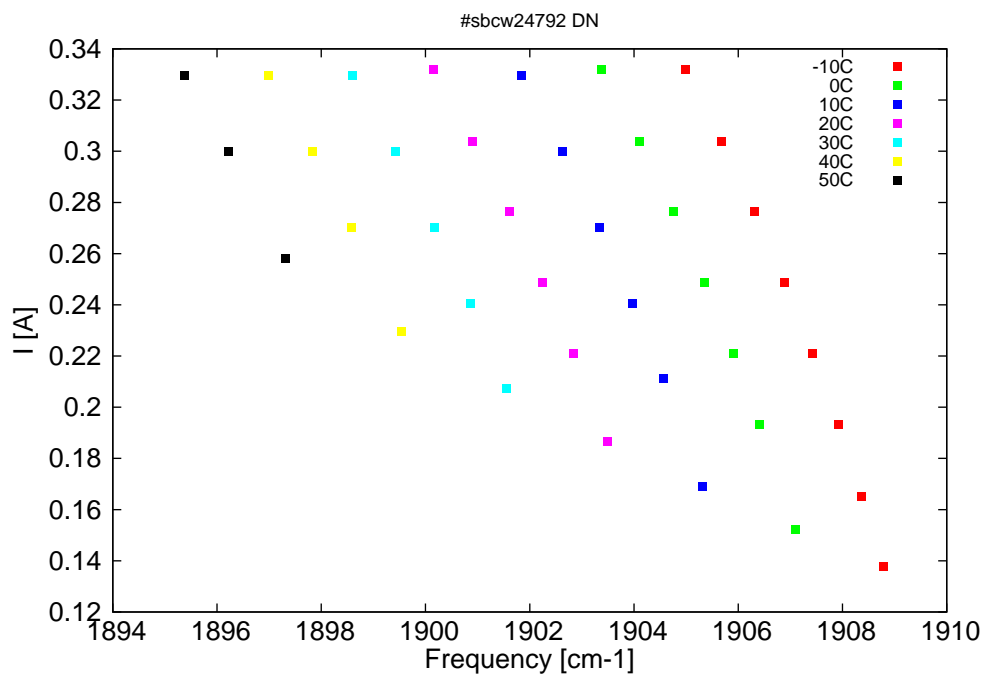


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5238.9	1908.8	0.3	-10	7.63	0.138
5240.1	1908.4	21.1	-10	7.82	0.165
5241.3	1907.9	44.8	-10	8.02	0.193
5242.6	1907.4	66.5	-10	8.22	0.221
5244.1	1906.9	87.1	-10	8.42	0.249
5245.7	1906.3	104.7	-10	8.63	0.276
5247.5	1905.7	119.3	-10	8.85	0.304
5249.4	1905	129.5	-10	9.07	0.332
5243.6	1907.1	0.5	0	7.68	0.152
5245.4	1906.4	29.6	0	7.96	0.193
5246.8	1905.9	50.7	0	8.16	0.221
5248.4	1905.4	69.6	0	8.37	0.249
5250	1904.8	86.1	0	8.57	0.276
5251.8	1904.1	99.6	0	8.79	0.304
5253.8	1903.4	109.5	0	9.01	0.332
5248.5	1905.3	1	10	7.74	0.169
5250.6	1904.6	27.9	10	8.03	0.211
5252.2	1904	47.3	10	8.25	0.241
5253.9	1903.3	64.4	10	8.47	0.27
5255.9	1902.6	78.4	10	8.7	0.3
5258	1901.8	88.9	10	8.93	0.33
5253.5	1903.5	0.8	20	7.81	0.187
5255.3	1902.8	19.4	20	8.05	0.221
5256.9	1902.2	35.6	20	8.25	0.249
5258.7	1901.6	49.4	20	8.45	0.276
5260.6	1900.9	61	20	8.67	0.304
5262.7	1900.2	70	20	8.88	0.332
5258.8	1901.6	1	30	7.89	0.207
5260.8	1900.9	16.5	30	8.12	0.241
5262.7	1900.2	30.8	30	8.33	0.27
5264.7	1899.4	42.8	30	8.55	0.3
5267	1898.6	52	30	8.78	0.33
5264.4	1899.5	0.5	40	8	0.23
5267.1	1898.6	16.2	40	8.27	0.27
5269.2	1897.8	27.2	40	8.48	0.3
5271.5	1897	35.7	40	8.71	0.33
5270.6	1897.3	0.9	50	8.12	0.258
5273.7	1896.2	13.8	50	8.41	0.3
5276	1895.4	21.6	50	8.63	0.33

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

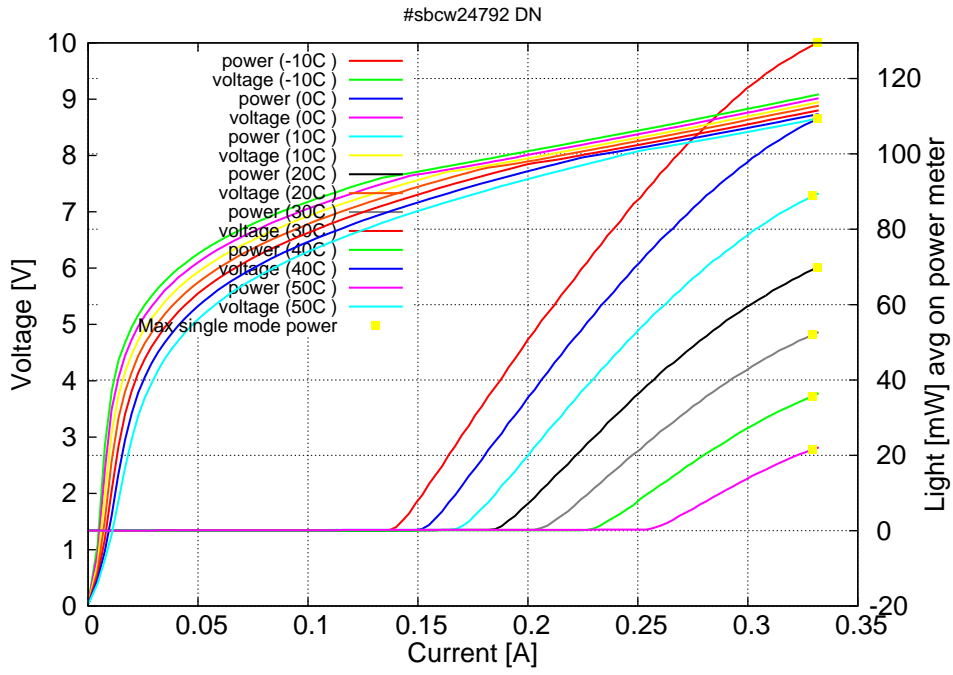


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C:  $I_{th}=0.137A$  /  $V_{th}=7.6V$  (2-wires measurements). Maximum operation current: 0.335A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

