

Datasheet for #sbcw24691 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 #sbcw24691 DN (please note that AlN submount numbering is A11TV)

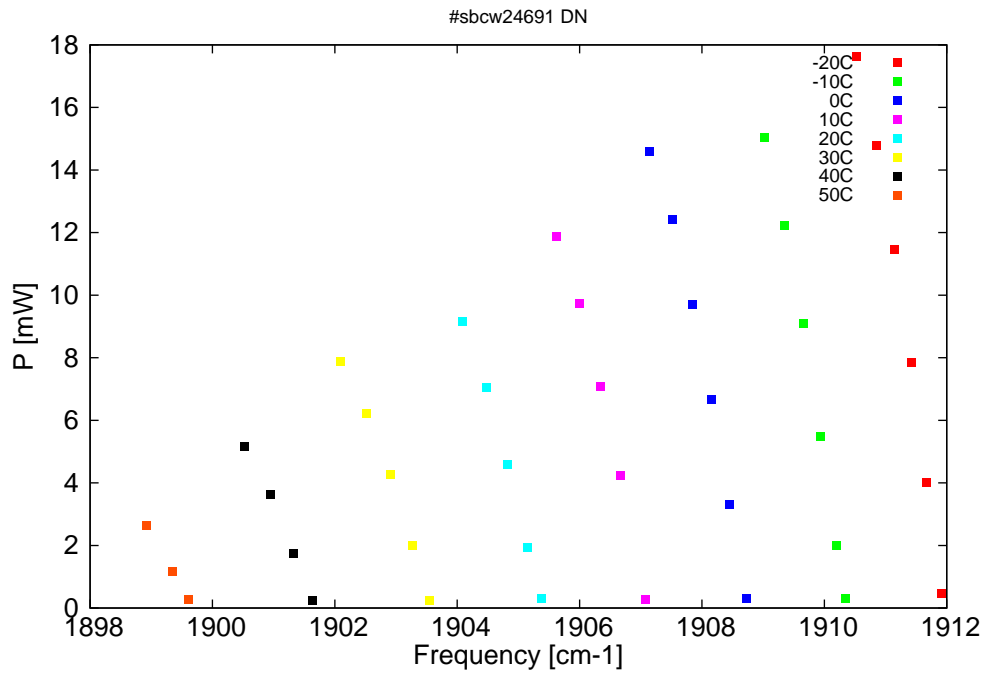


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

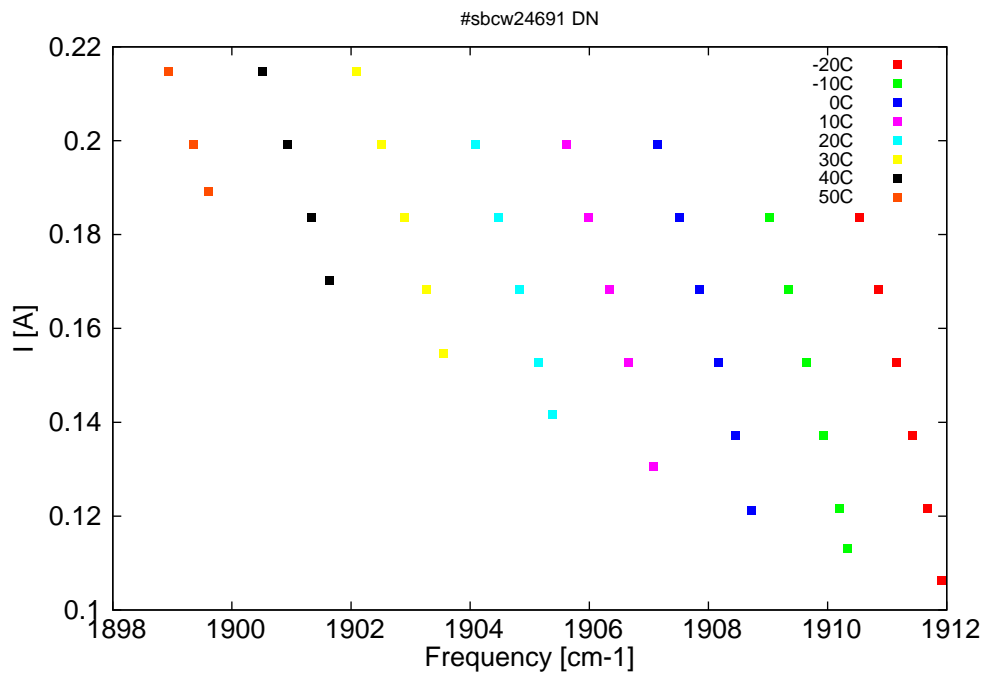


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5230.4	1911.9	0.5	-20	8.03	0.106
5231	1911.7	4	-20	8.2	0.122
5231.7	1911.4	7.9	-20	8.37	0.137
5232.4	1911.2	11.5	-20	8.56	0.153
5233.2	1910.9	14.8	-20	8.76	0.168
5234.1	1910.5	17.6	-20	8.98	0.184
5234.7	1910.3	0.3	-10	8.04	0.113
5235.1	1910.2	2	-10	8.14	0.122
5235.8	1909.9	5.5	-10	8.31	0.137
5236.6	1909.7	9.1	-10	8.5	0.153
5237.4	1909.4	12.2	-10	8.7	0.168
5238.3	1909	15.1	-10	8.9	0.184
5239.1	1908.7	0.3	0	8.06	0.121
5239.8	1908.5	3.3	0	8.24	0.137
5240.6	1908.2	6.7	0	8.42	0.153
5241.5	1907.8	9.7	0	8.61	0.168
5242.4	1907.5	12.4	0	8.81	0.184
5243.4	1907.1	14.6	0	9.02	0.199
5243.6	1907.1	0.3	10	8.11	0.131
5244.8	1906.7	4.2	10	8.35	0.153
5245.6	1906.3	7.1	10	8.54	0.168
5246.6	1906	9.7	10	8.74	0.184
5247.6	1905.6	11.9	10	8.95	0.199
5248.3	1905.4	0.3	20	8.17	0.142
5248.9	1905.2	1.9	20	8.29	0.153
5249.8	1904.8	4.6	20	8.47	0.168
5250.8	1904.5	7	20	8.67	0.184
5251.9	1904.1	9.2	20	8.87	0.199
5253.3	1903.6	0.2	30	8.26	0.155
5254.1	1903.3	2	30	8.41	0.168
5255.1	1902.9	4.3	30	8.59	0.184
5256.2	1902.5	6.2	30	8.79	0.199
5257.4	1902.1	7.9	30	9	0.215
5258.6	1901.6	0.2	40	8.39	0.17
5259.5	1901.3	1.8	40	8.54	0.184
5260.6	1900.9	3.6	40	8.73	0.199
5261.7	1900.5	5.2	40	8.92	0.215
5264.2	1899.6	0.3	50	8.56	0.189
5265	1899.4	1.2	50	8.68	0.199
5266.1	1898.9	2.6	50	8.87	0.215

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

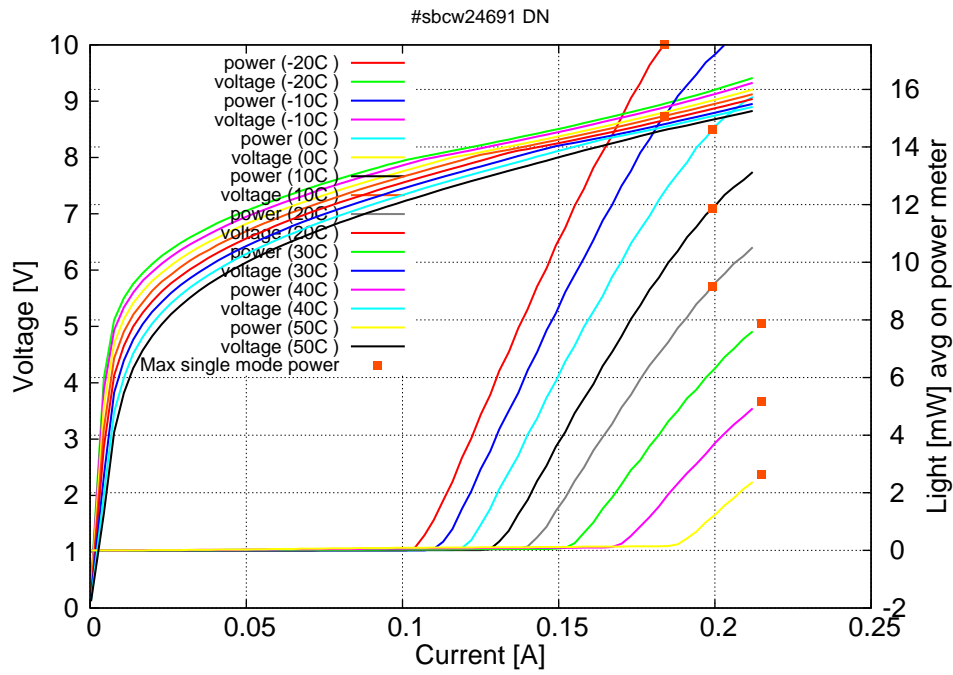


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=8.0V$ (2-wires measurements). Maximum operation current: 0.185A between -20C and -10C, 0.20A between 0C and 20C, 0.215A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

