

Datasheet for #sbcw19792 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 #sbcw19792 DN (please note that AlN submount numbering is A0N9T)

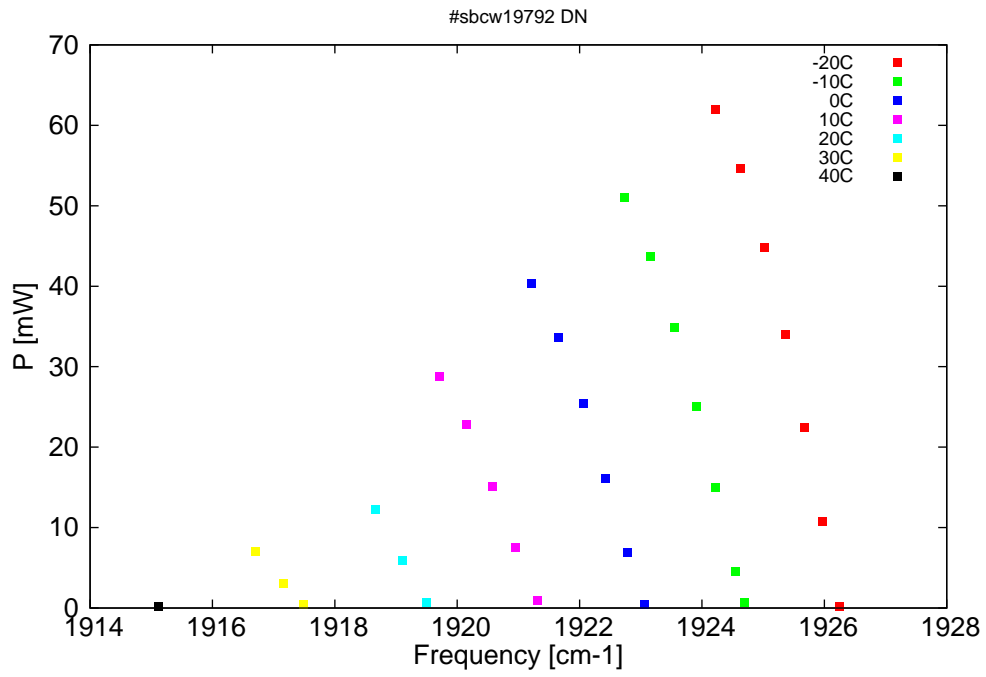


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

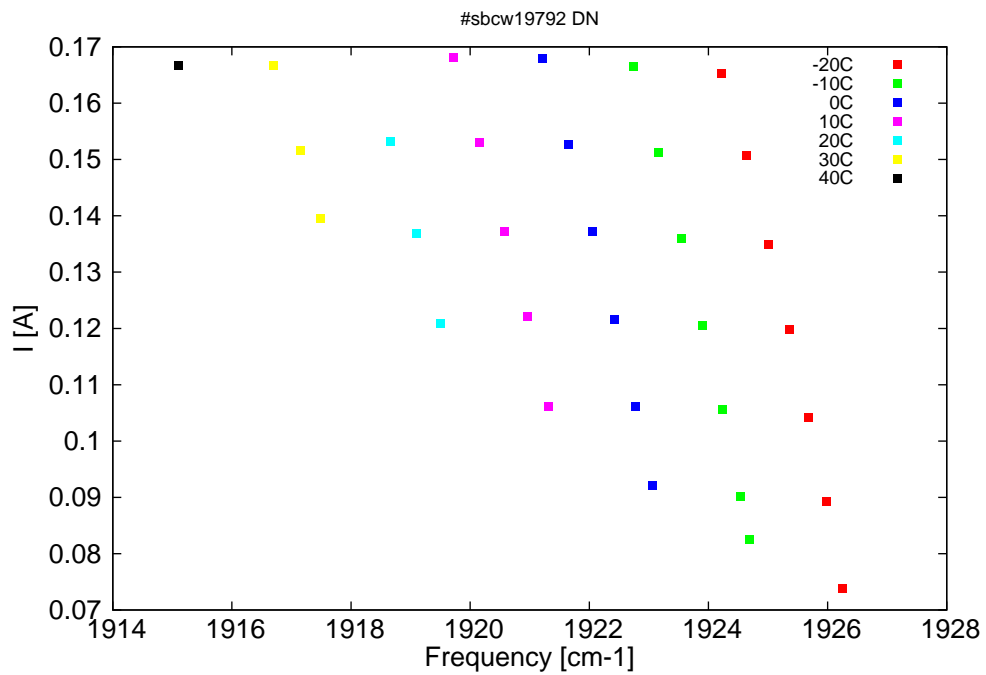


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5191.4	1926.2	0.2	-20	8.45	0.074
5192.2	1926	10.8	-20	8.68	0.089
5193	1925.7	22.5	-20	8.93	0.104
5193.8	1925.4	34	-20	9.18	0.12
5194.8	1925	44.9	-20	9.43	0.135
5195.8	1924.6	54.7	-20	9.7	0.151
5196.9	1924.2	62	-20	9.97	0.165
5195.6	1924.7	0.7	-10	8.5	0.083
5196	1924.5	4.6	-10	8.62	0.09
5196.9	1924.2	15	-10	8.86	0.106
5197.8	1923.9	25	-10	9.11	0.121
5198.7	1923.5	34.9	-10	9.36	0.136
5199.8	1923.2	43.7	-10	9.62	0.151
5200.9	1922.7	51	-10	9.9	0.166
5200	1923.1	0.4	0	8.6	0.092
5200.8	1922.8	6.9	0	8.8	0.106
5201.8	1922.4	16.2	0	9.04	0.122
5202.8	1922.1	25.4	0	9.3	0.137
5203.9	1921.7	33.6	0	9.55	0.153
5205	1921.2	40.3	0	9.82	0.168
5204.8	1921.3	1	10	8.74	0.106
5205.7	1921	7.6	10	8.97	0.122
5206.8	1920.6	15.1	10	9.21	0.137
5207.9	1920.2	22.8	10	9.47	0.153
5209.1	1919.7	28.8	10	9.73	0.168
5209.7	1919.5	0.7	20	8.91	0.121
5210.8	1919.1	5.9	20	9.14	0.137
5212	1918.7	12.2	20	9.39	0.153
5215.2	1917.5	0.5	30	9.14	0.14
5216.1	1917.2	3.1	30	9.3	0.152
5217.3	1916.7	7	30	9.53	0.167
5221.6	1915.1	0.2	40	9.51	0.167

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

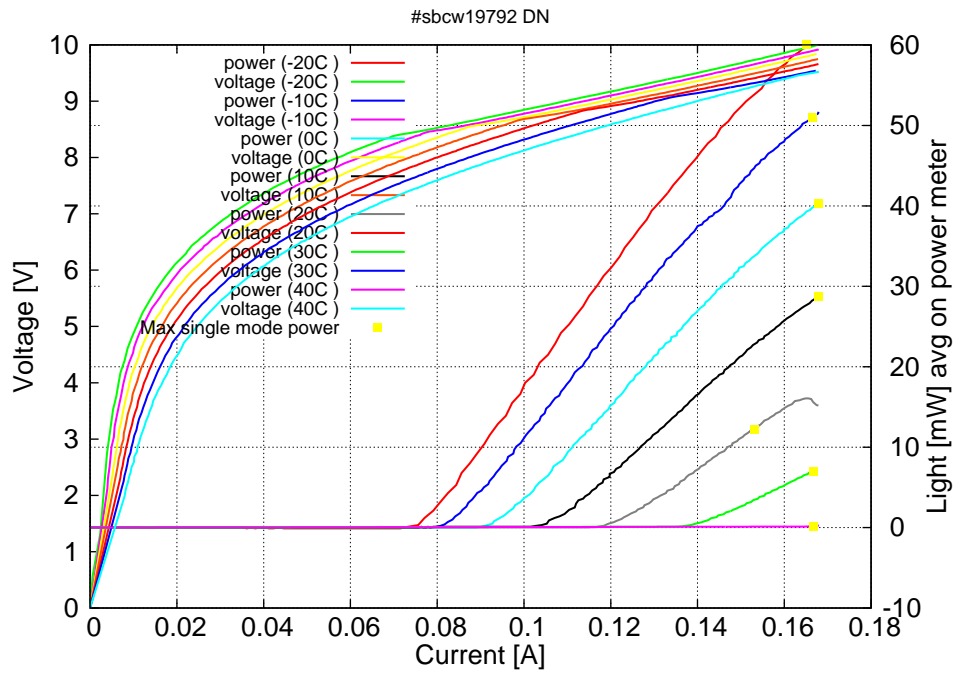


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=8.4V$ (2-wires measurements). Maximum operation current: 0.168A for all temperatures.

