

Datasheet for #sbcw19743 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 #sbcw19743 DN (please note that AlN submount numbering is A0RMV)

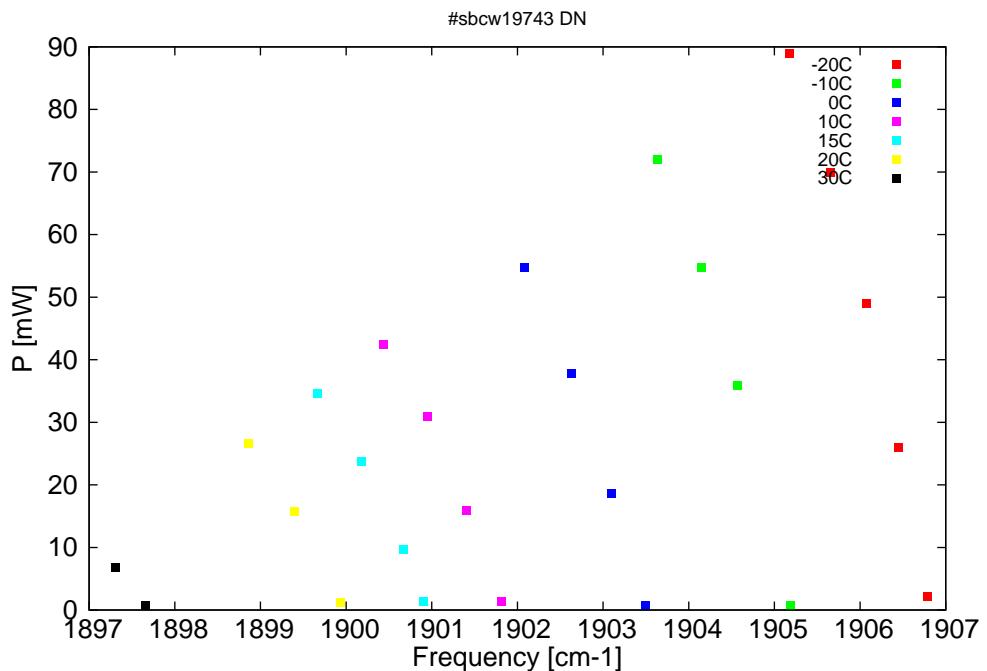


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

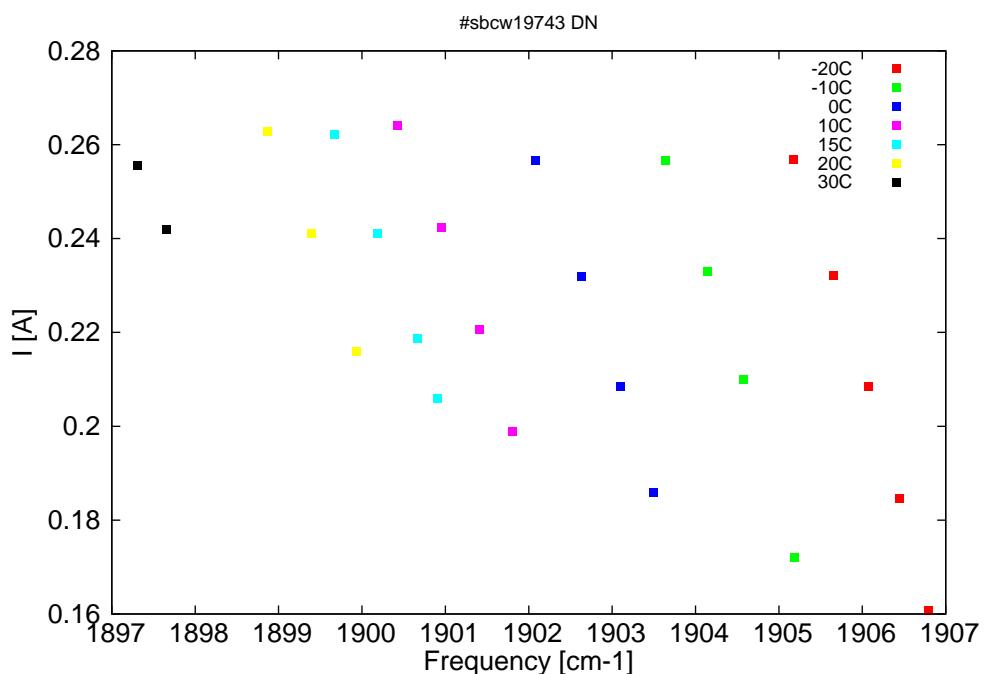


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm $^{-1}$]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5244.4	1906.8	2.2	-20	8.02	0.161
5245.3	1906.5	25.9	-20	8.24	0.185
5246.4	1906.1	49	-20	8.46	0.208
5247.5	1905.7	70	-20	8.7	0.232
5248.9	1905.2	88.9	-20	8.97	0.257
5248.8	1905.2	0.8	-10	8.03	0.172
5250.5	1904.6	35.8	-10	8.37	0.21
5251.7	1904.1	54.8	-10	8.6	0.233
5253.1	1903.6	72	-10	8.87	0.257
5253.5	1903.5	0.7	0	8.08	0.186
5254.6	1903.1	18.7	0	8.29	0.209
5255.9	1902.6	37.8	0	8.52	0.232
5257.4	1902.1	54.7	0	8.79	0.257
5258.1	1901.8	1.3	10	8.19	0.199
5259.3	1901.4	15.9	10	8.4	0.221
5260.5	1901	31	10	8.63	0.242
5262	1900.4	42.4	10	8.88	0.264
5260.7	1900.9	1.3	15	8.24	0.206
5261.3	1900.7	9.8	15	8.37	0.219
5262.6	1900.2	23.7	15	8.61	0.241
5264.1	1899.7	34.6	15	8.85	0.262
5263.3	1899.9	1.2	20	8.33	0.216
5264.8	1899.4	15.7	20	8.6	0.241
5266.3	1898.9	26.6	20	8.85	0.263
5269.7	1897.7	0.6	30	8.58	0.242
5270.6	1897.3	6.8	30	8.72	0.255

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

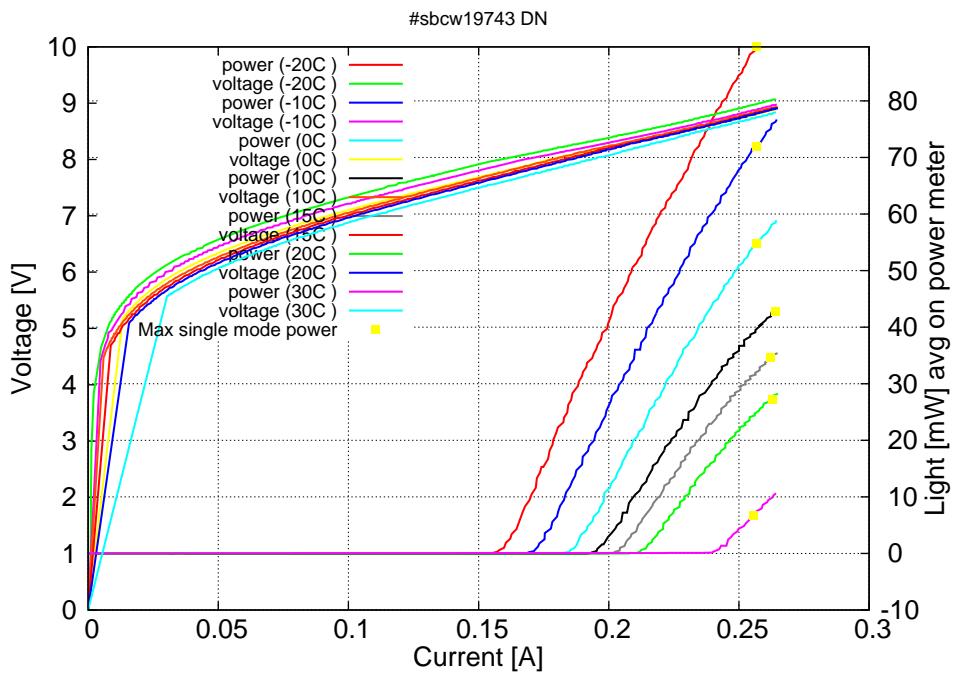


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.16A$ / $V_{th}=8.0V$ (2-wires measurements). Maximum operation current: 0.265A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

