

Datasheet for #sbcw19826 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 #sbcw19826 DN (please note that AlN submount numbering is A0MNG)

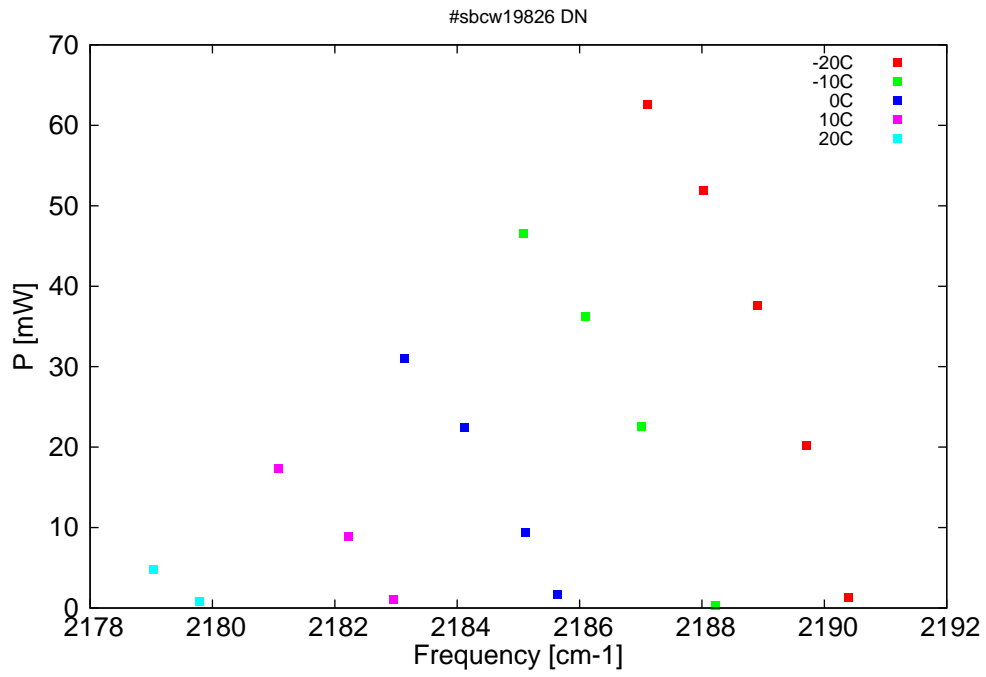


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

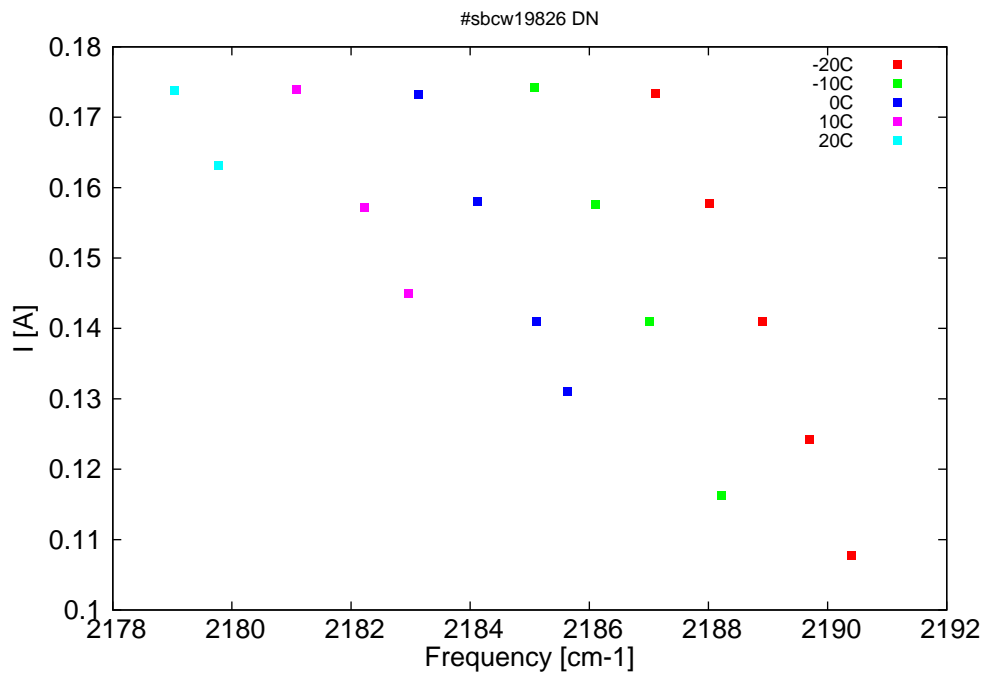


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4565.4	2190.4	1.3	-20	8.94	0.108
4566.8	2189.7	20.2	-20	9.15	0.124
4568.5	2188.9	37.6	-20	9.37	0.141
4570.3	2188	51.9	-20	9.61	0.158
4572.2	2187.1	62.5	-20	9.82	0.173
4569.9	2188.2	0.3	-10	9.02	0.116
4572.4	2187	22.6	-10	9.34	0.141
4574.4	2186.1	36.2	-10	9.57	0.158
4576.5	2185.1	46.5	-10	9.81	0.174
4575.3	2185.6	1.7	0	9.18	0.131
4576.4	2185.1	9.4	0	9.31	0.141
4578.5	2184.1	22.4	0	9.55	0.158
4580.6	2183.1	31	0	9.77	0.173
4580.9	2183	1.1	10	9.35	0.145
4582.5	2182.2	8.9	10	9.52	0.157
4584.9	2181.1	17.4	10	9.76	0.174
4587.6	2179.8	0.8	20	9.6	0.163
4589.2	2179	4.8	20	9.76	0.174

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

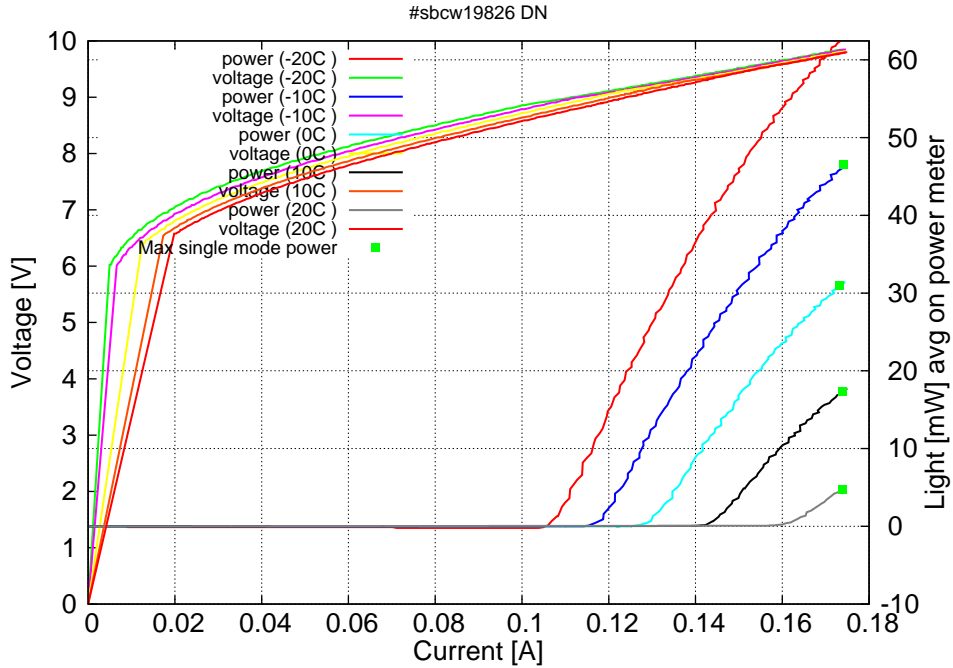


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.11A$ / $V_{th}=8.9V$ (2-wires measurements). Maximum operation current: 0.175A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

