

Datasheet for #sbcw18238 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 #sbcw18238 DN (please note that AlN submount numbering is A0LGJ)

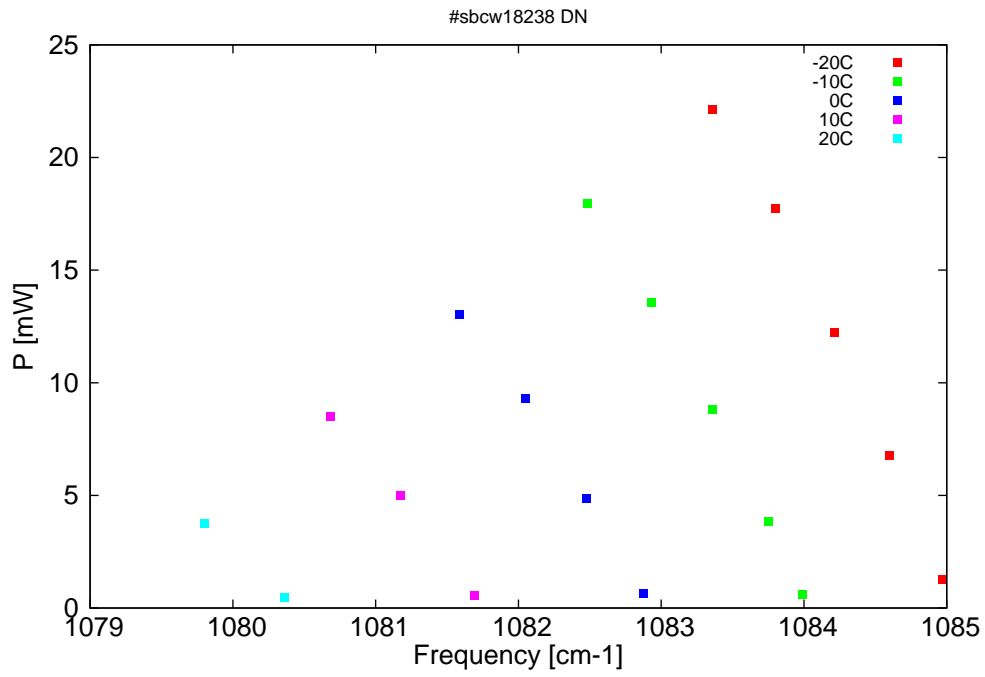


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

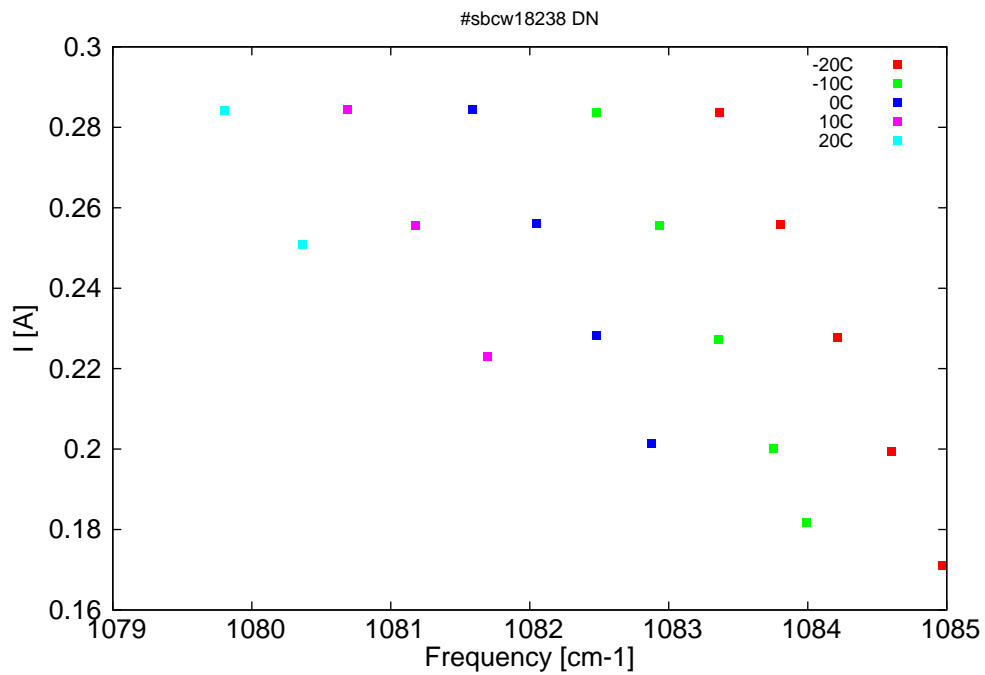


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9216.8	1085	1.3	-20	10.79	0.171
9220	1084.6	6.8	-20	11.25	0.199
9223.3	1084.2	12.2	-20	11.67	0.228
9226.8	1083.8	17.7	-20	12.08	0.256
9230.5	1083.4	22.1	-20	12.48	0.284
9225.2	1084	0.6	-10	10.85	0.182
9227.2	1083.8	3.8	-10	11.15	0.2
9230.5	1083.4	8.8	-10	11.56	0.227
9234.2	1082.9	13.6	-10	11.97	0.256
9238	1082.5	18	-10	12.37	0.284
9234.7	1082.9	0.6	0	11.02	0.201
9238	1082.5	4.9	0	11.43	0.228
9241.7	1082	9.3	0	11.84	0.256
9245.7	1081.6	13	0	12.22	0.284
9244.8	1081.7	0.5	10	11.24	0.223
9249.2	1081.2	5	10	11.72	0.256
9253.4	1080.7	8.5	10	12.11	0.285
9256.1	1080.4	0.5	20	11.54	0.251
9261	1079.8	3.8	20	11.99	0.284

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

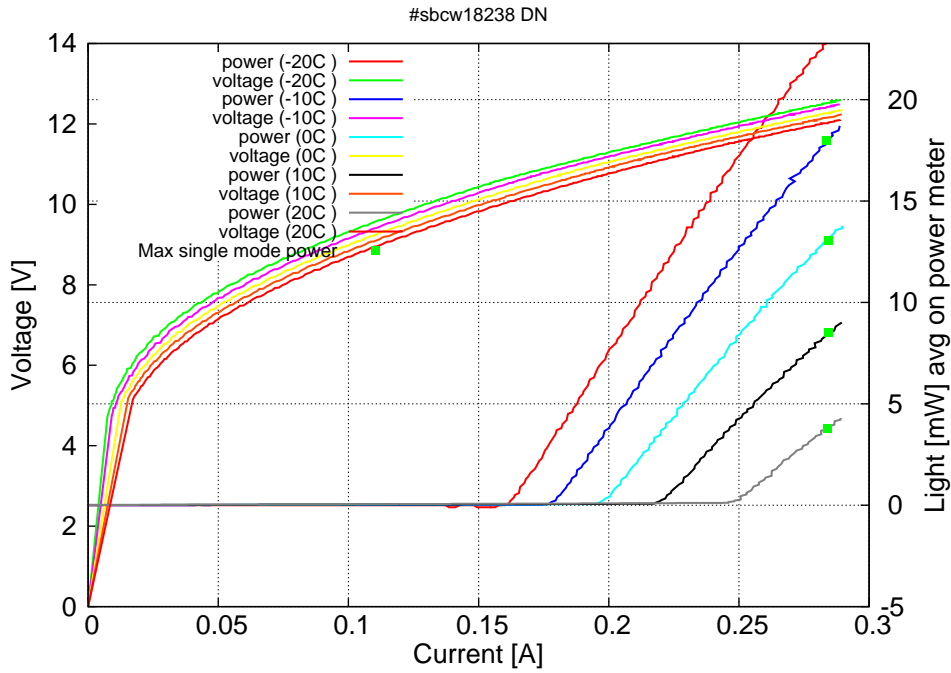


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20°C: $I_{th}=0.16A$ / $V_{th}=10.6V$ (2-wires measurements). Maximum operation current: 0.29A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

