

Datasheet for #sbcw23911 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 #sbcw23911 DN (please note that AlN submount numbering is A0YCR)

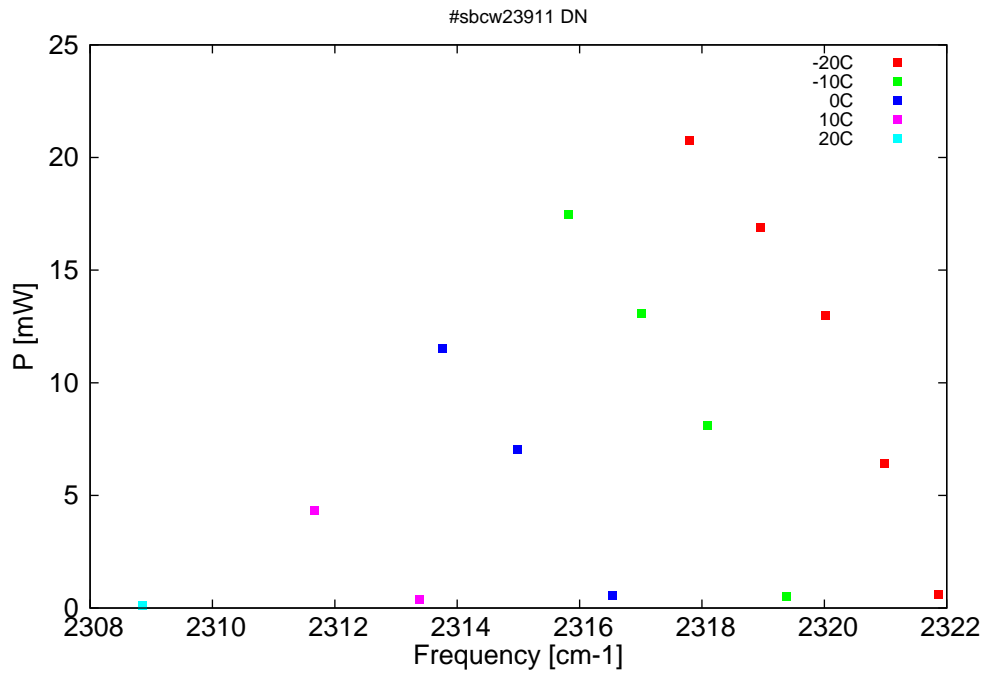


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

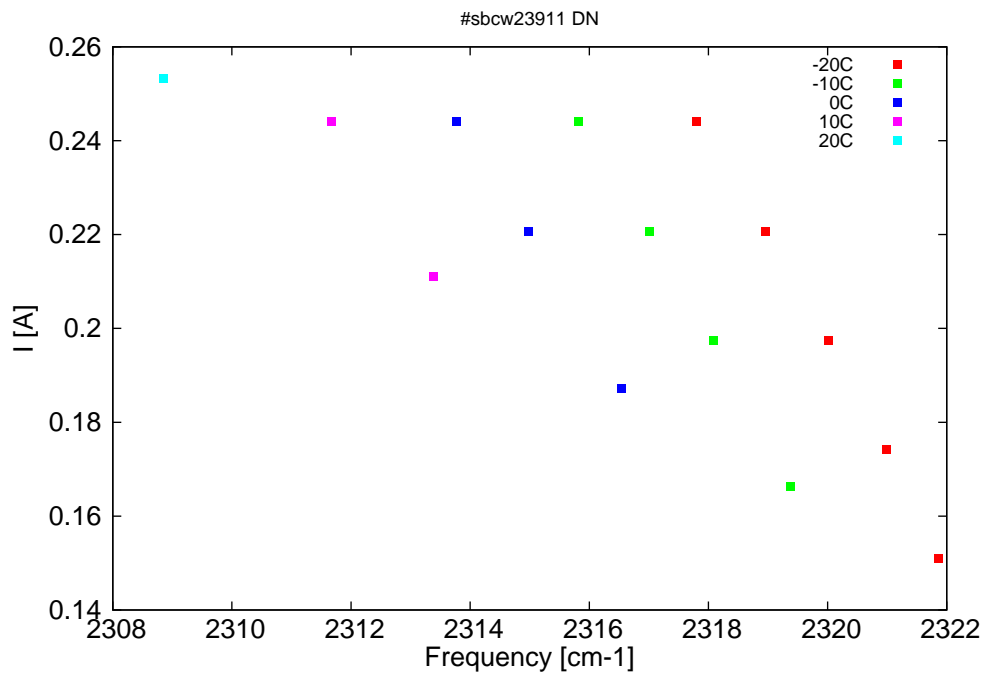


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4306.9	2321.9	0.6	-20	12.54	0.151
4308.5	2321	6.4	-20	12.78	0.174
4310.3	2320	13	-20	13.04	0.198
4312.3	2319	16.9	-20	13.3	0.221
4314.4	2317.8	20.7	-20	13.57	0.244
4311.5	2319.4	0.5	-10	12.62	0.166
4313.9	2318.1	8.1	-10	12.94	0.198
4315.9	2317	13.1	-10	13.19	0.221
4318.1	2315.8	17.5	-10	13.45	0.244
4316.8	2316.5	0.5	0	12.77	0.187
4319.7	2315	7	0	13.1	0.221
4322	2313.8	11.5	0	13.36	0.244
4322.7	2313.4	0.4	10	12.96	0.211
4325.9	2311.7	4.3	10	13.29	0.244
4331.2	2308.9	0.1	20	13.41	0.253

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

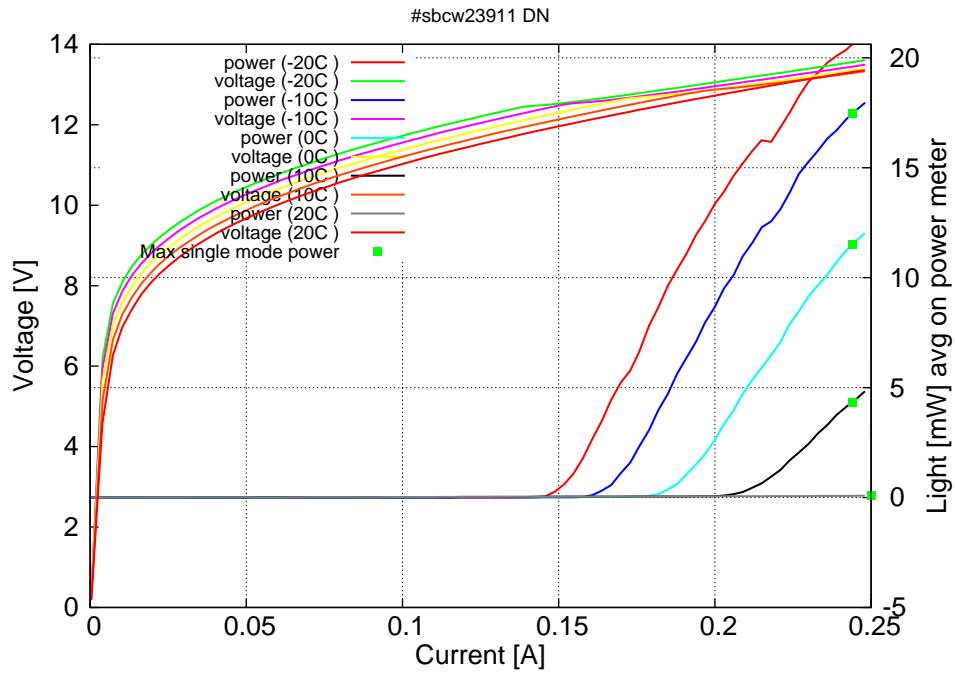


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=12.5V$ (2-wires measurements). Maximum operation current: 0.250A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

