

Datasheet for #sbcw21591 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 #sbcw21591 DN (please note that AlN submount numbering is A0NLU)

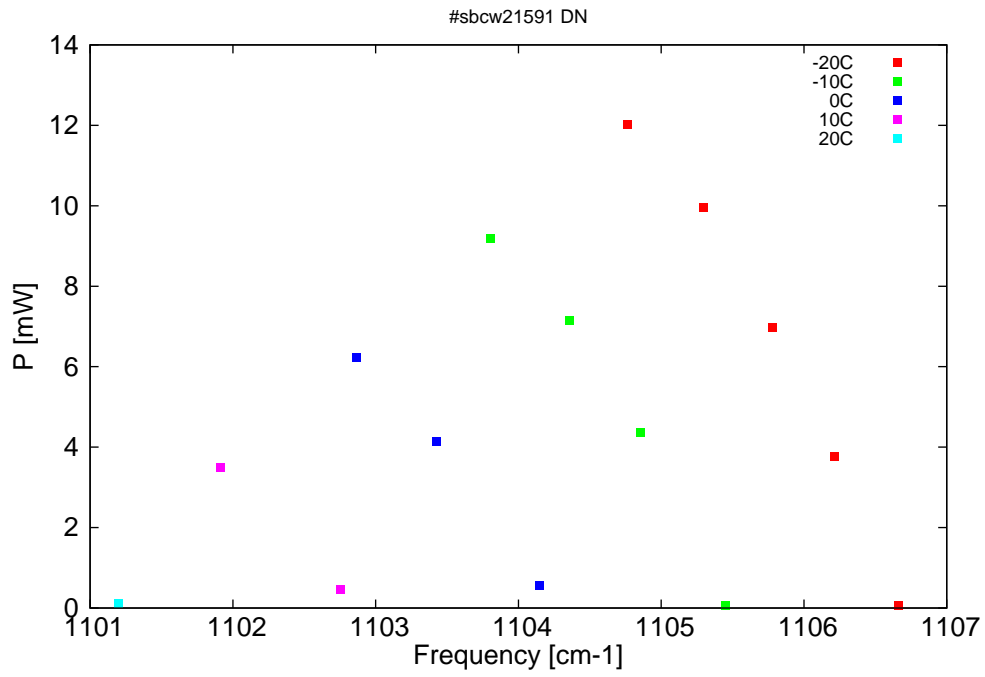


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

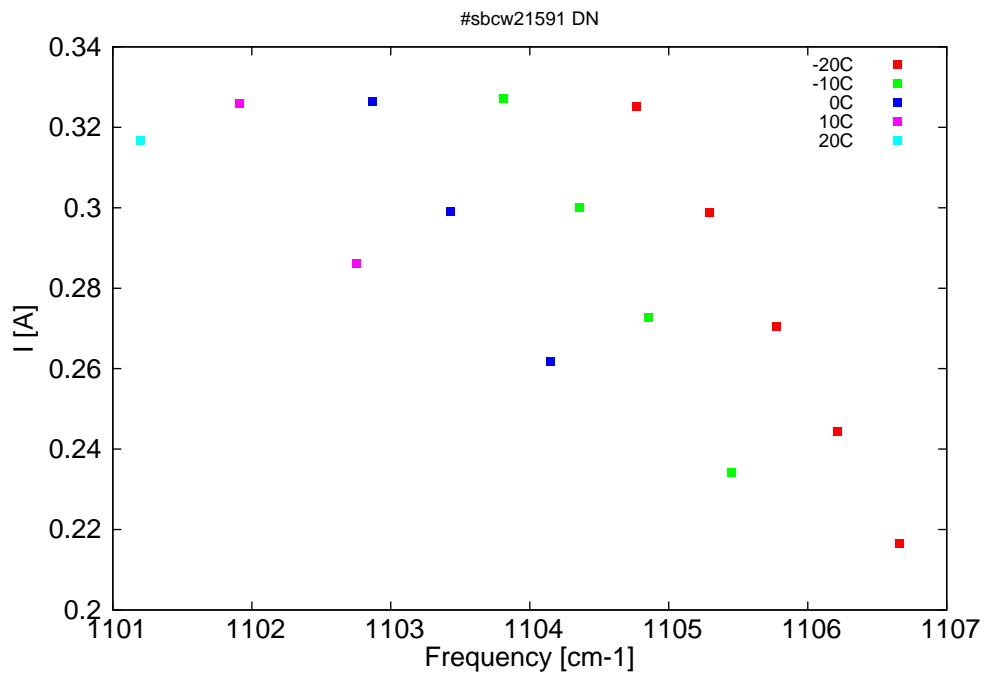


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9036.2	1106.7	0.1	-20	10.4	0.216
9039.9	1106.2	3.8	-20	10.78	0.244
9043.4	1105.8	7	-20	11.13	0.271
9047.4	1105.3	10	-20	11.5	0.299
9051.7	1104.8	12	-20	11.89	0.325
9046.1	1105.5	0.1	-10	10.63	0.234
9051	1104.9	4.4	-10	11.08	0.273
9055	1104.4	7.1	-10	11.45	0.3
9059.5	1103.8	9.2	-10	11.84	0.327
9056.7	1104.2	0.6	0	10.85	0.262
9062.7	1103.4	4.1	0	11.36	0.299
9067.3	1102.9	6.2	0	11.75	0.326
9068.2	1102.8	0.5	10	11.13	0.286
9075.1	1101.9	3.5	10	11.69	0.326
9081	1101.2	0.1	20	11.46	0.317

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

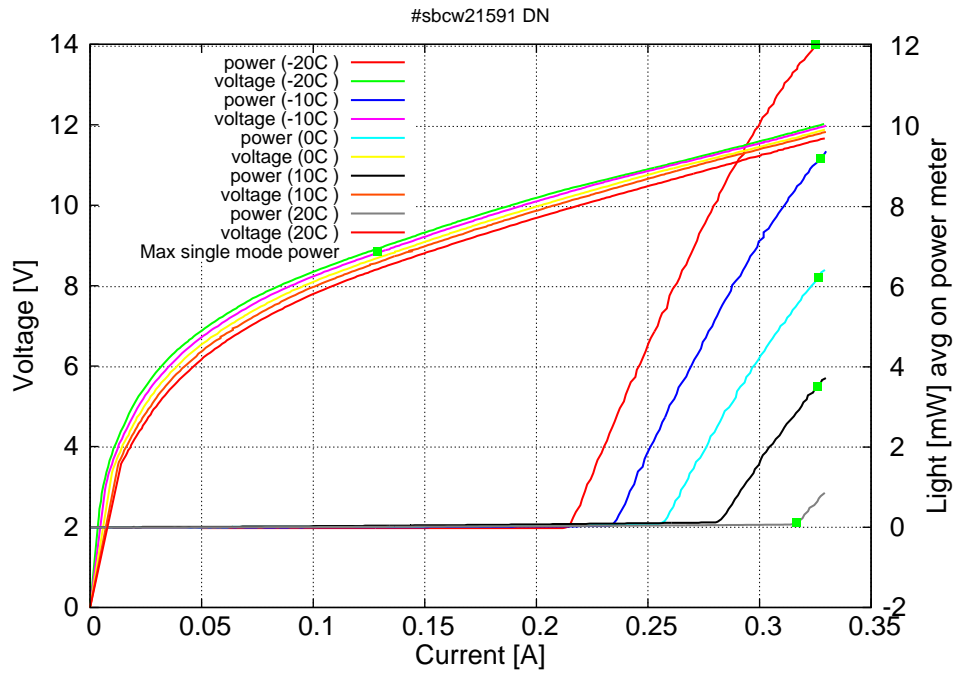


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.21A$ / $V_{th}=10.4V$ (2-wires measurements). Maximum operation current: 0.33A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

