

Datasheet for #sbcw21570 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.

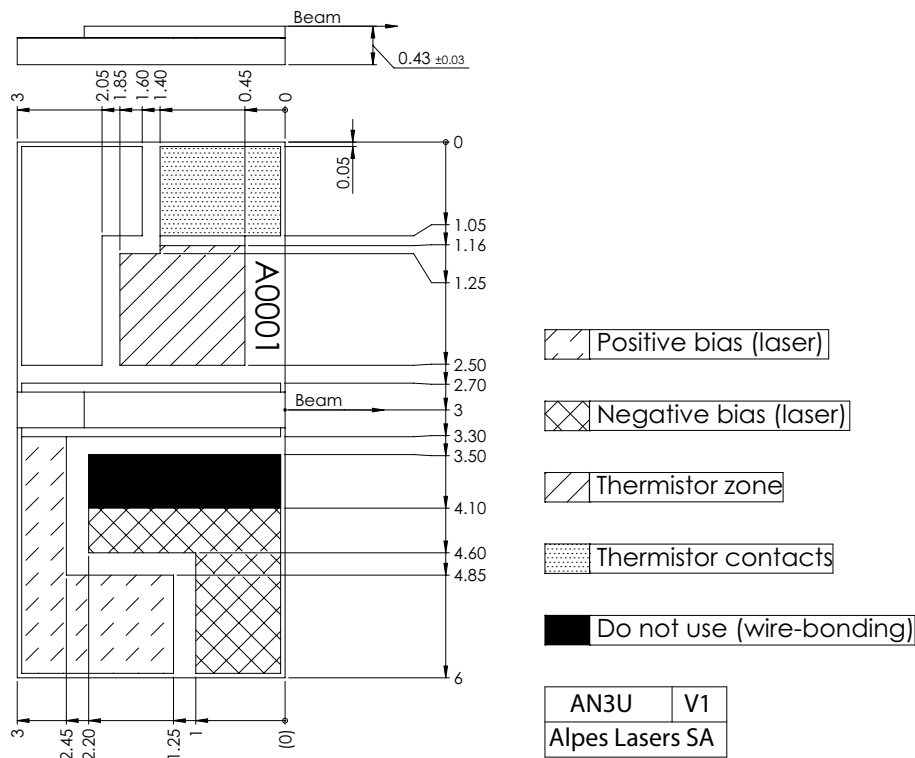


Figure 1: Mechanical and electrical interface for #sbcw21570 DN (please note that AlN submount numbering is A0TDA)

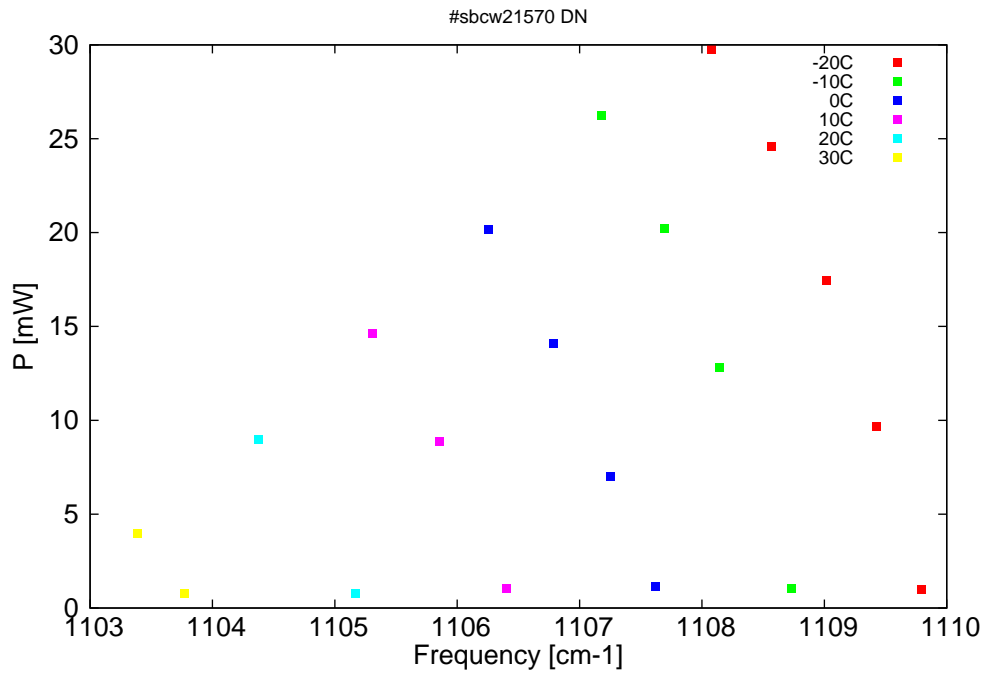


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

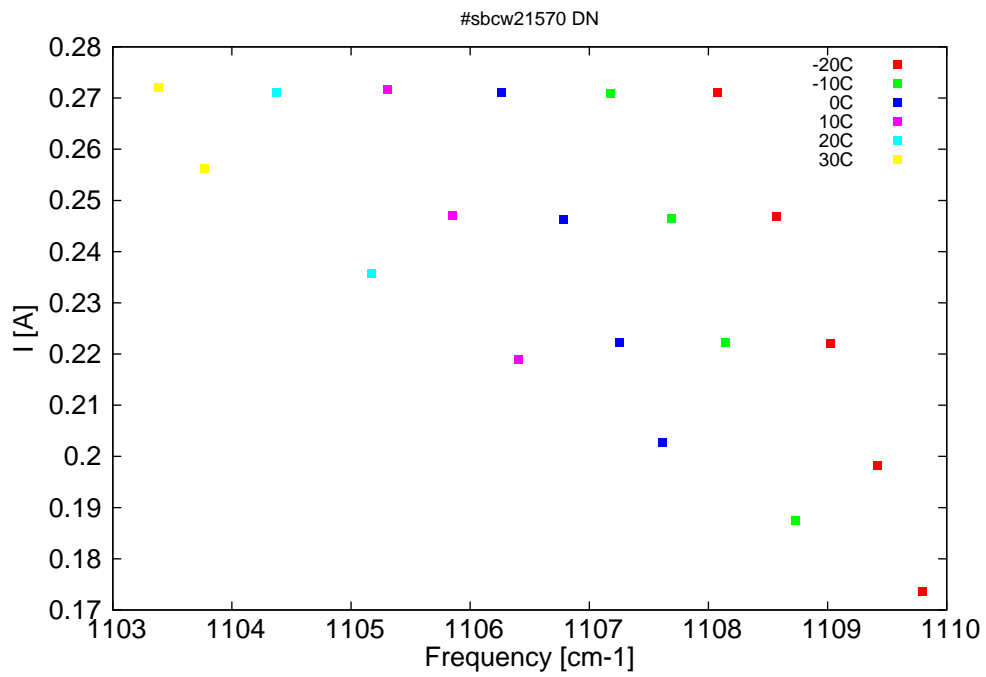


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9010.7	1109.8	1	-20	10.22	0.174
9013.7	1109.4	9.7	-20	10.62	0.198
9017	1109	17.4	-20	11.01	0.222
9020.6	1108.6	24.6	-20	11.41	0.247
9024.6	1108.1	29.8	-20	11.83	0.271
9019.3	1108.7	1.1	-10	10.36	0.187
9024.1	1108.1	12.8	-10	10.92	0.222
9027.8	1107.7	20.2	-10	11.32	0.247
9032	1107.2	26.2	-10	11.74	0.271
9028.4	1107.6	1.1	0	10.52	0.203
9031.3	1107.3	7	0	10.84	0.222
9035.2	1106.8	14.1	0	11.24	0.246
9039.5	1106.3	20.2	0	11.66	0.271
9038.3	1106.4	1.1	10	10.73	0.219
9042.8	1105.9	8.8	10	11.19	0.247
9047.3	1105.3	14.6	10	11.61	0.272
9048.4	1105.2	0.8	20	10.94	0.236
9054.9	1104.4	9	20	11.54	0.271
9059.9	1103.8	0.8	30	11.22	0.256
9063	1103.4	3.9	30	11.48	0.272

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

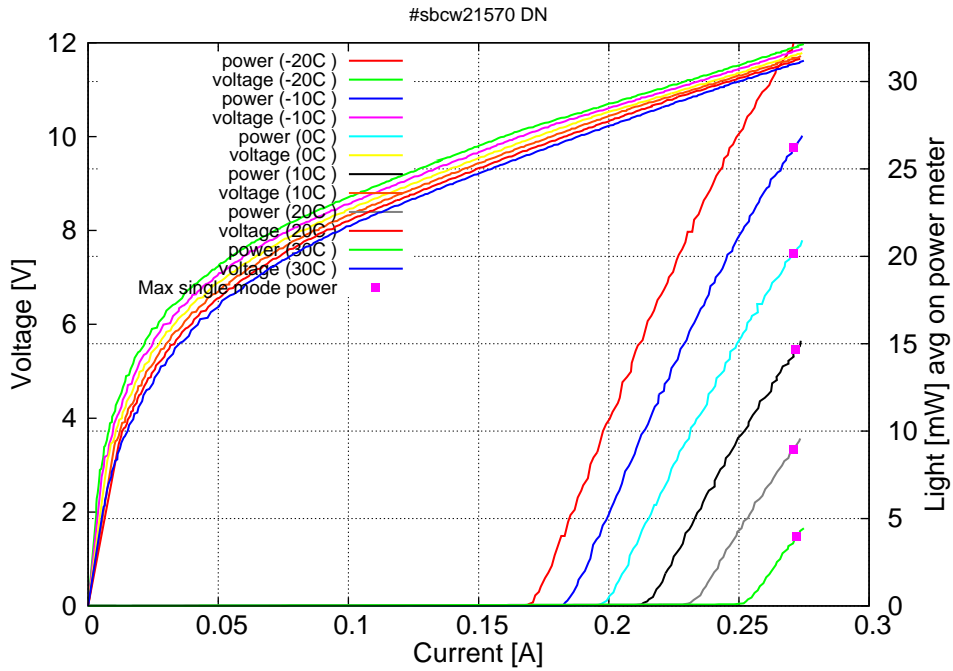


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=10.3V$ (2-wires measurements). Maximum operation current: 0.275A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

