

Datasheet for #sbcw21262 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.

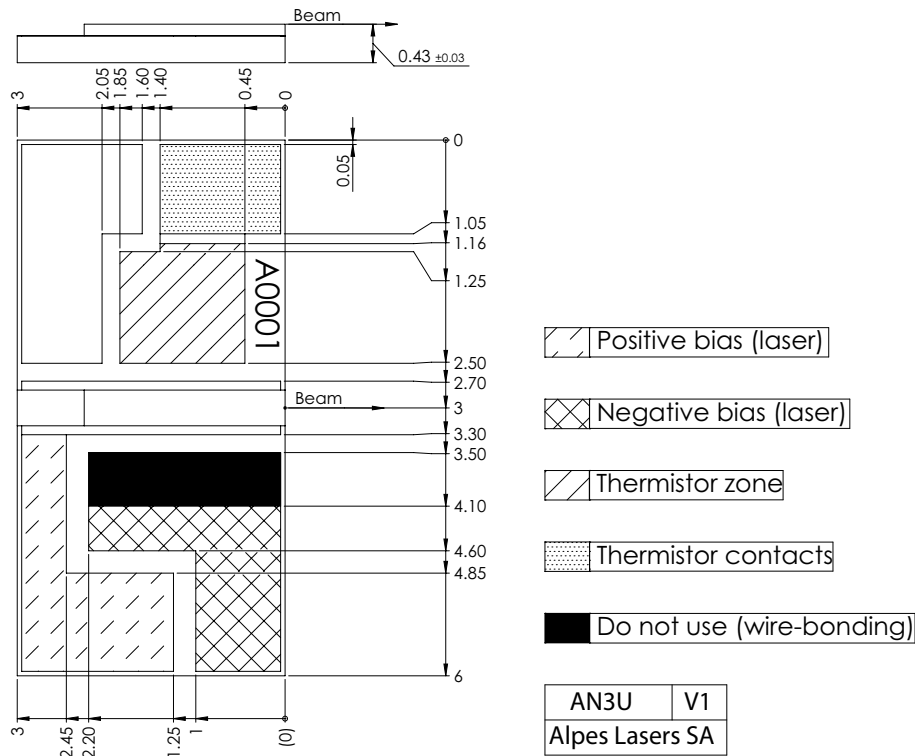


Figure 1: Mechanical and electrical interface for #sbcw21262 DN (please note that AlN submount numbering is A0NKL)

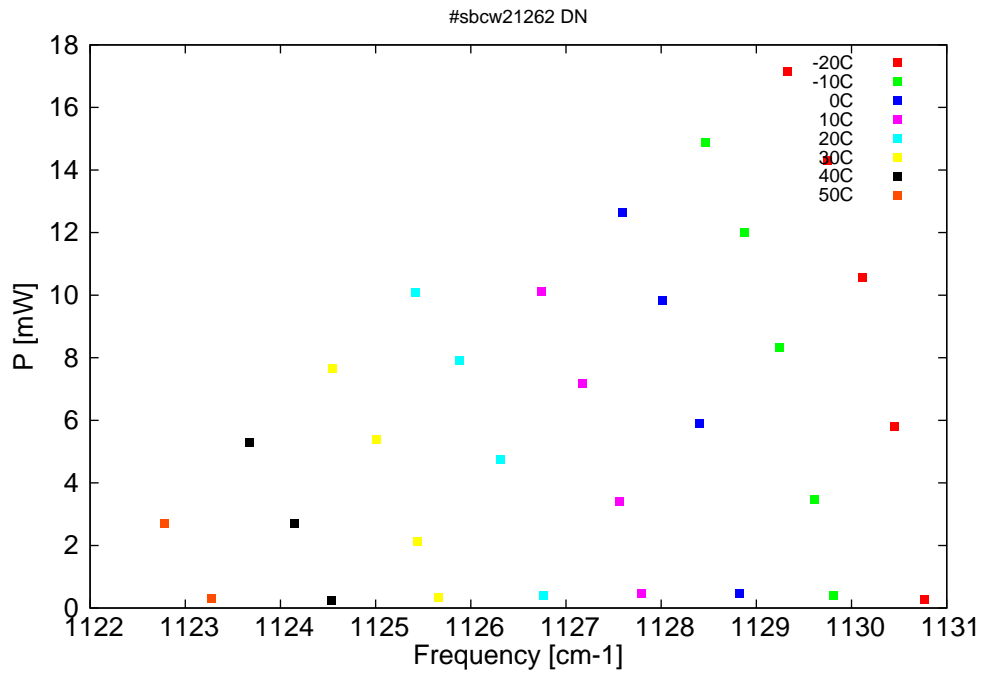


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

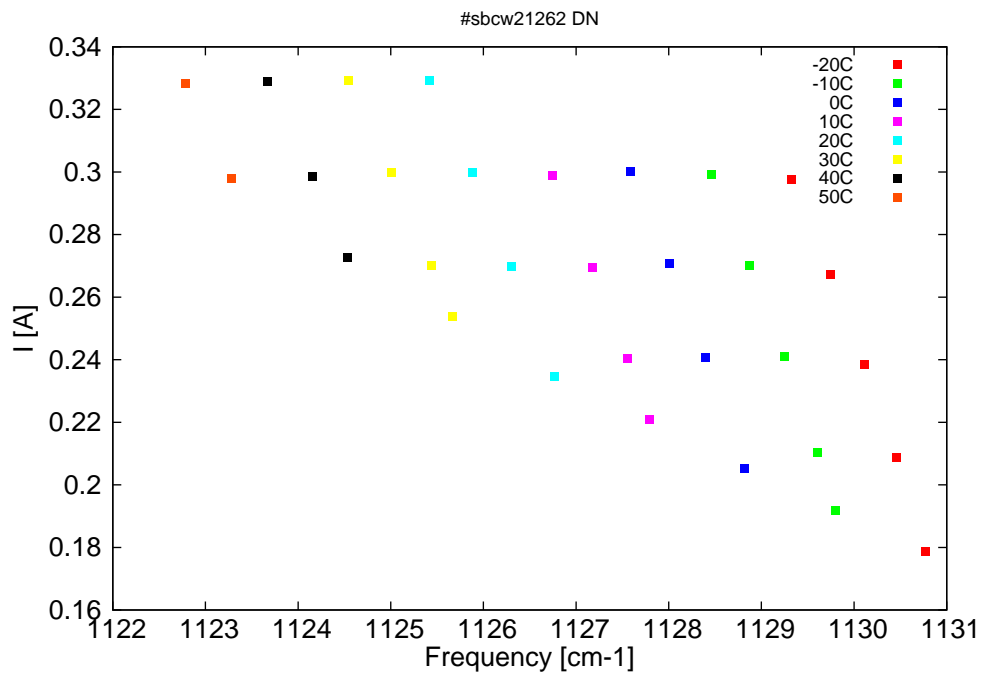


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
8843.5	1130.8	0.3	-20	8.81	0.179
8846	1130.5	5.8	-20	9.24	0.209
8848.7	1130.1	10.6	-20	9.68	0.238
8851.5	1129.7	14.3	-20	10.12	0.267
8854.8	1129.3	17.2	-20	10.57	0.298
8851.1	1129.8	0.4	-10	8.84	0.192
8852.6	1129.6	3.5	-10	9.09	0.21
8855.5	1129.2	8.3	-10	9.53	0.241
8858.4	1128.9	12	-10	9.95	0.27
8861.6	1128.5	14.9	-10	10.36	0.299
8858.8	1128.8	0.5	0	8.87	0.205
8862.1	1128.4	5.9	0	9.36	0.241
8865.2	1128	9.8	0	9.77	0.271
8868.5	1127.6	12.7	0	10.17	0.3
8866.9	1127.8	0.5	10	8.93	0.221
8868.7	1127.6	3.4	10	9.2	0.24
8871.8	1127.2	7.2	10	9.59	0.27
8875.1	1126.7	10.1	10	9.97	0.299
8874.9	1126.8	0.4	20	8.97	0.235
8878.6	1126.3	4.7	20	9.42	0.27
8882	1125.9	7.9	20	9.79	0.3
8885.6	1125.4	10.1	20	10.15	0.329
8883.6	1125.7	0.3	30	9.04	0.254
8885.4	1125.4	2.1	30	9.23	0.27
8888.8	1125	5.4	30	9.59	0.3
8892.5	1124.5	7.7	30	9.94	0.329
8892.6	1124.5	0.2	40	9.1	0.273
8895.6	1124.2	2.7	40	9.4	0.299
8899.4	1123.7	5.3	40	9.74	0.329
8902.5	1123.3	0.3	50	9.2	0.298
8906.4	1122.8	2.7	50	9.53	0.328

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

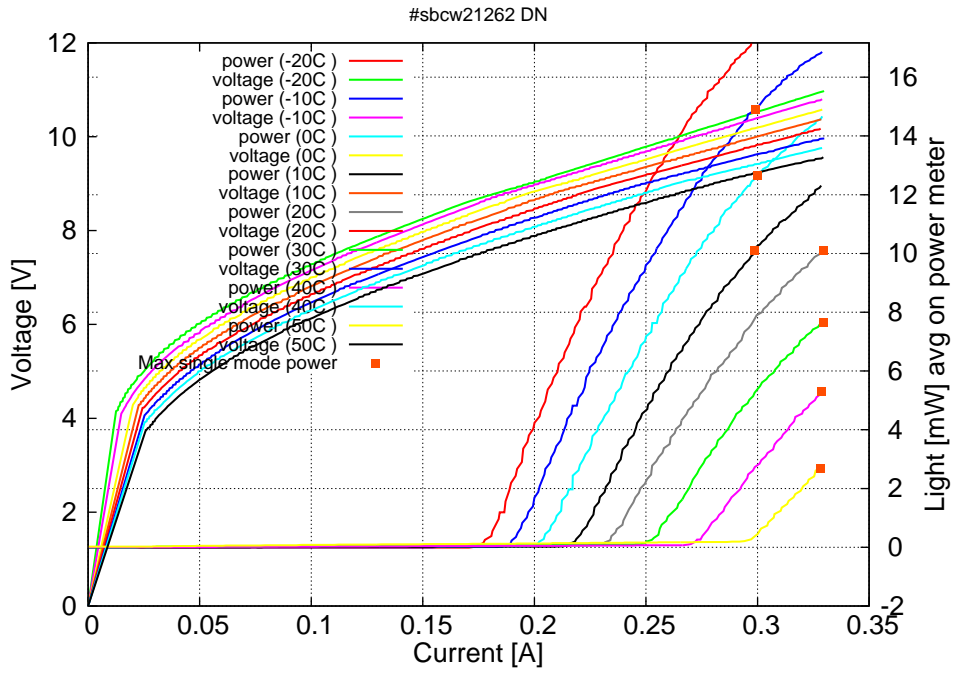


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.18A$ / $V_{th}=8.7V$ (2-wires measurements). Maximum operation current: 0.30A between -20C and 10C, 0.33A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

