

Datasheet for #sbcw18245 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.

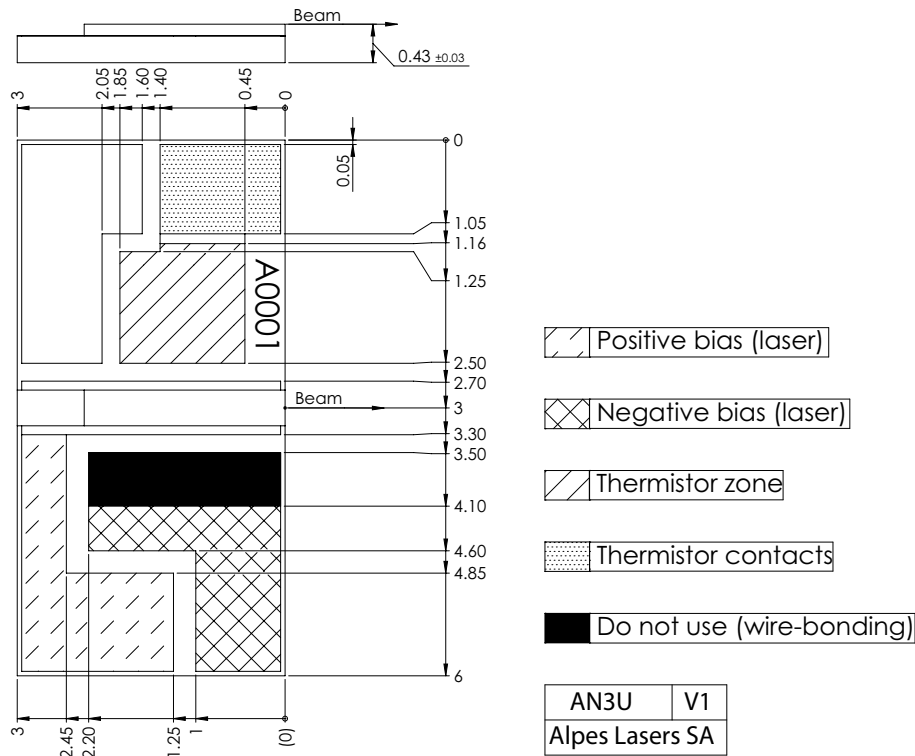


Figure 1: Mechanical and electrical interface for #sbcw18245 DN (please note that AlN submount numbering is A0L1D)

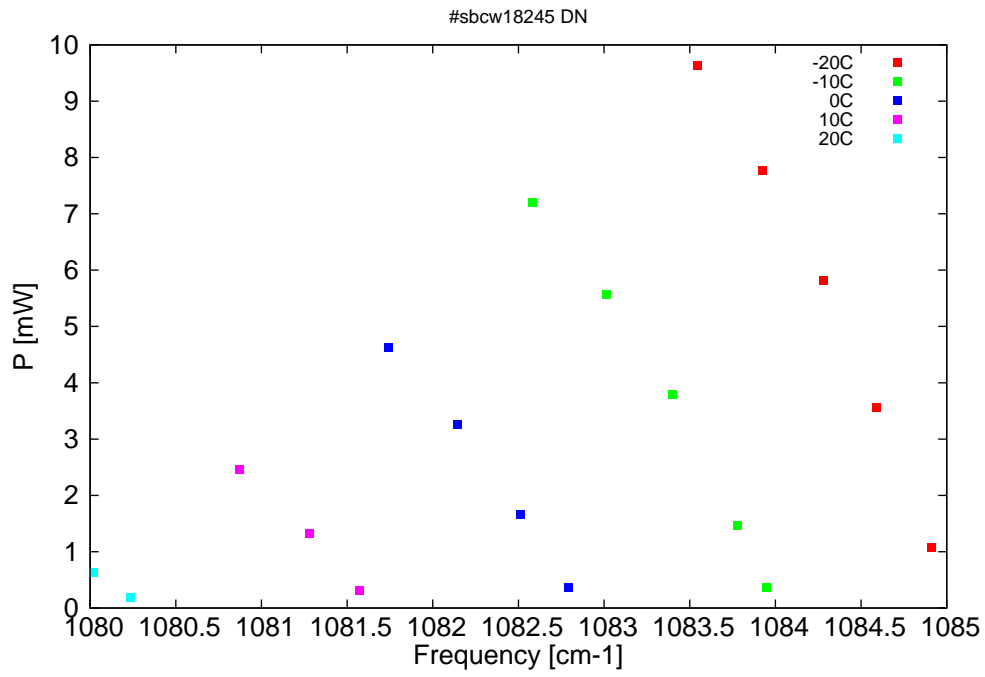


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

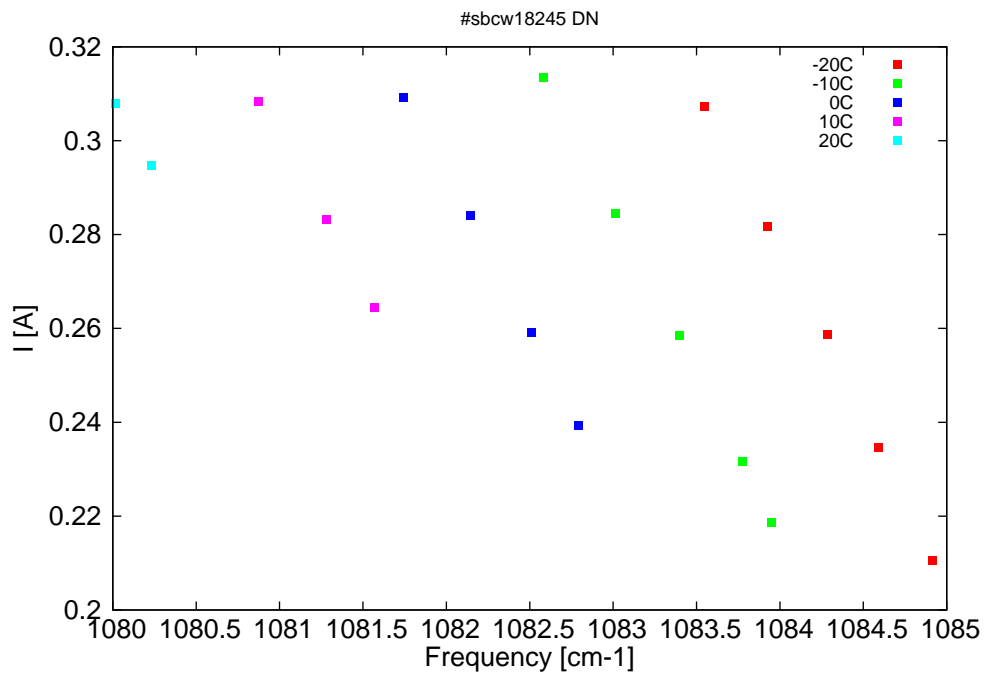


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9217.3	1084.9	1.1	-20	11.03	0.21
9220.1	1084.6	3.6	-20	11.38	0.235
9222.7	1084.3	5.8	-20	11.72	0.259
9225.8	1083.9	7.8	-20	12.04	0.282
9229	1083.5	9.6	-20	12.36	0.307
9225.5	1083.9	0.4	-10	11.03	0.219
9227	1083.8	1.5	-10	11.22	0.232
9230.2	1083.4	3.8	-10	11.57	0.258
9233.5	1083	5.6	-10	11.9	0.284
9237.2	1082.6	7.2	-10	12.17	0.314
9235.4	1082.8	0.4	0	11.13	0.239
9237.8	1082.5	1.7	0	11.39	0.259
9240.9	1082.1	3.3	0	11.69	0.284
9244.3	1081.7	4.6	0	11.98	0.309
9245.8	1081.6	0.3	10	11.25	0.264
9248.3	1081.3	1.3	10	11.48	0.283
9251.8	1080.9	2.5	10	11.77	0.308
9257.2	1080.2	0.2	20	11.43	0.295
9259.1	1080	0.6	20	11.58	0.308

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

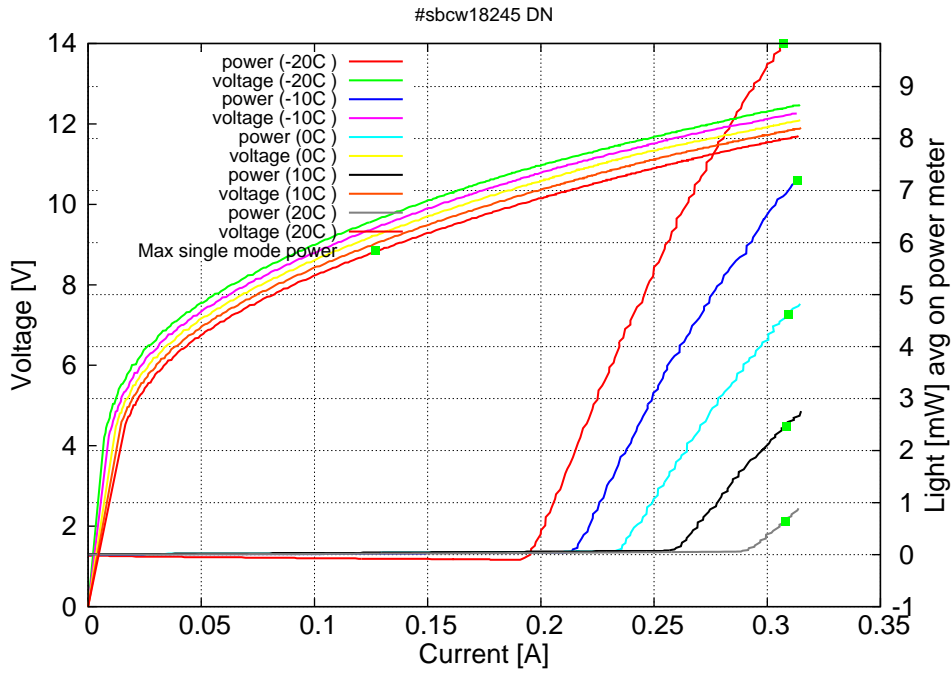


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20°C: $I_{th}=0.19A$ / $V_{th}=10.9V$ (2-wires measurements). Maximum operation current: 0.315A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

