

Datasheet for #sbcw21209 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.

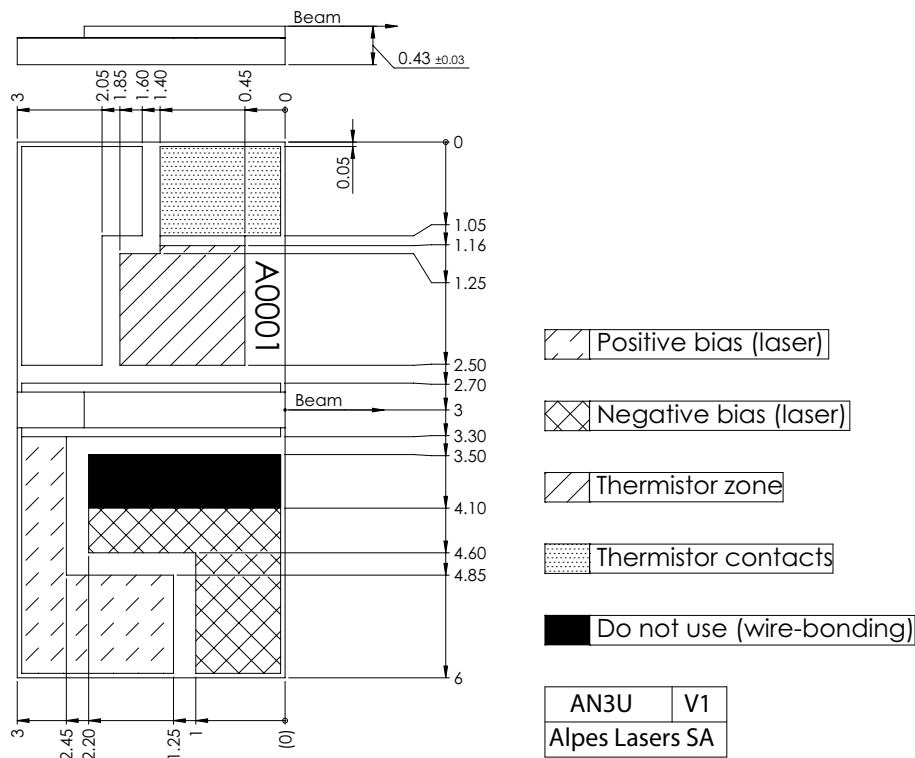


Figure 1: Mechanical and electrical interface for #sbcw21209 DN (please note that AlN submount numbering is A0T04)

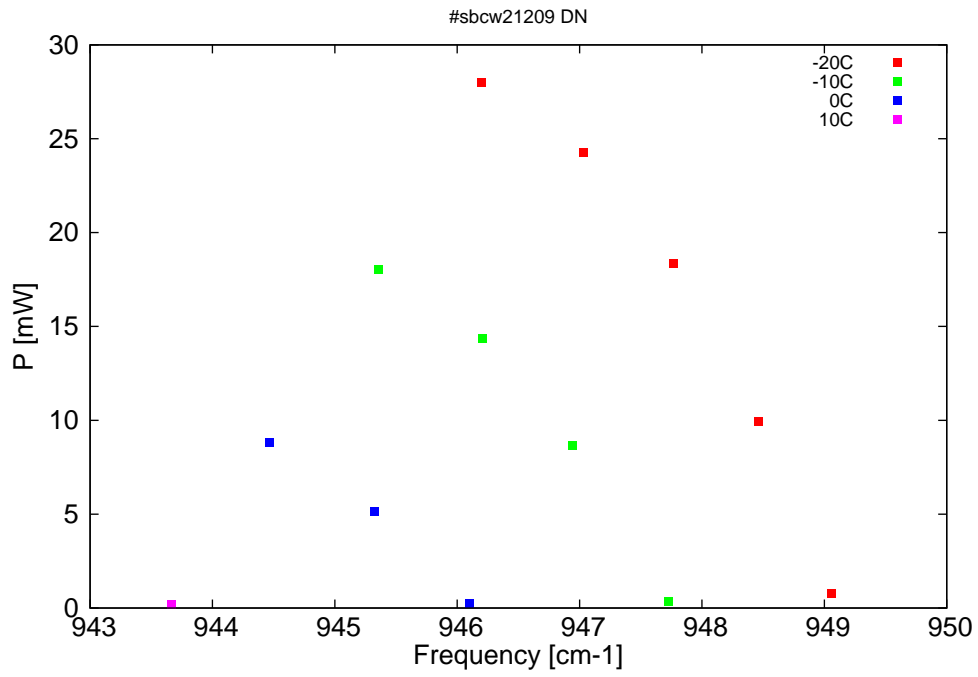


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

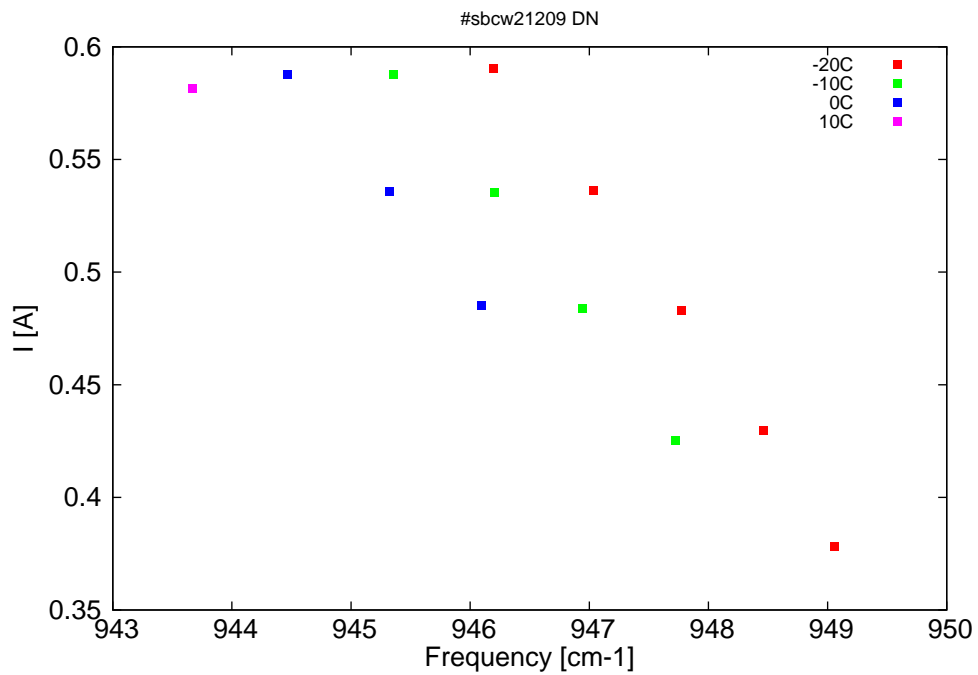


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10536.8	949.1	0.8	-20	8.97	0.378
10543.4	948.5	9.9	-20	9.27	0.43
10551.1	947.8	18.4	-20	9.57	0.483
10559.3	947	24.3	-20	9.87	0.536
10568.6	946.2	28	-20	10.17	0.59
10551.6	947.7	0.4	-10	9.16	0.425
10560.3	946.9	8.7	-10	9.49	0.484
10568.6	946.2	14.4	-10	9.78	0.535
10578	945.4	18.1	-10	10.09	0.588
10569.7	946.1	0.3	0	9.43	0.485
10578.4	945.3	5.2	0	9.72	0.536
10588	944.5	8.8	0	10.03	0.588
10597	943.7	0.2	10	9.94	0.582

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

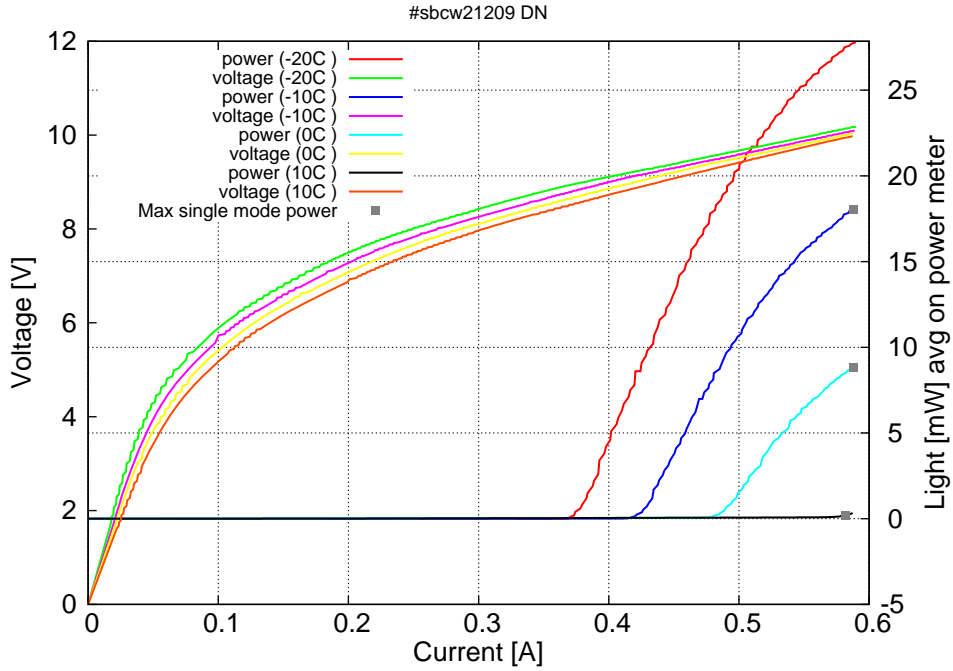


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.37A$ / $V_{th}=8.9V$ (2-wires measurements). Maximum operation current: 0.590A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

