

Datasheet for #sbcw21215 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.

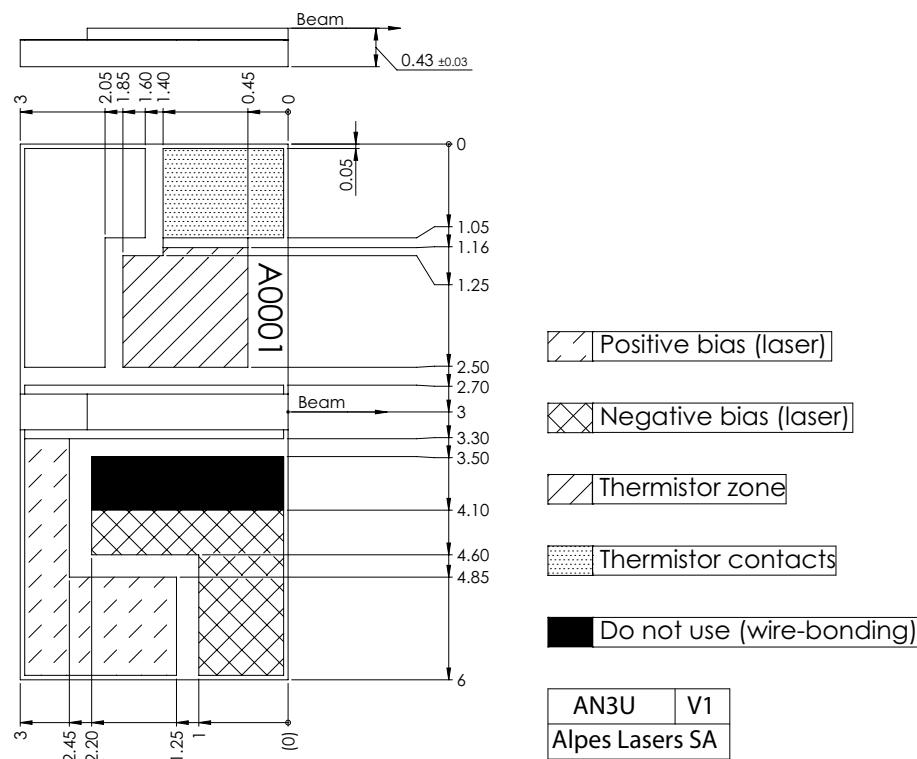


Figure 1: Mechanical and electrical interface for #sbcw21215 DN (please note that AlN submount numbering is A0MKX)

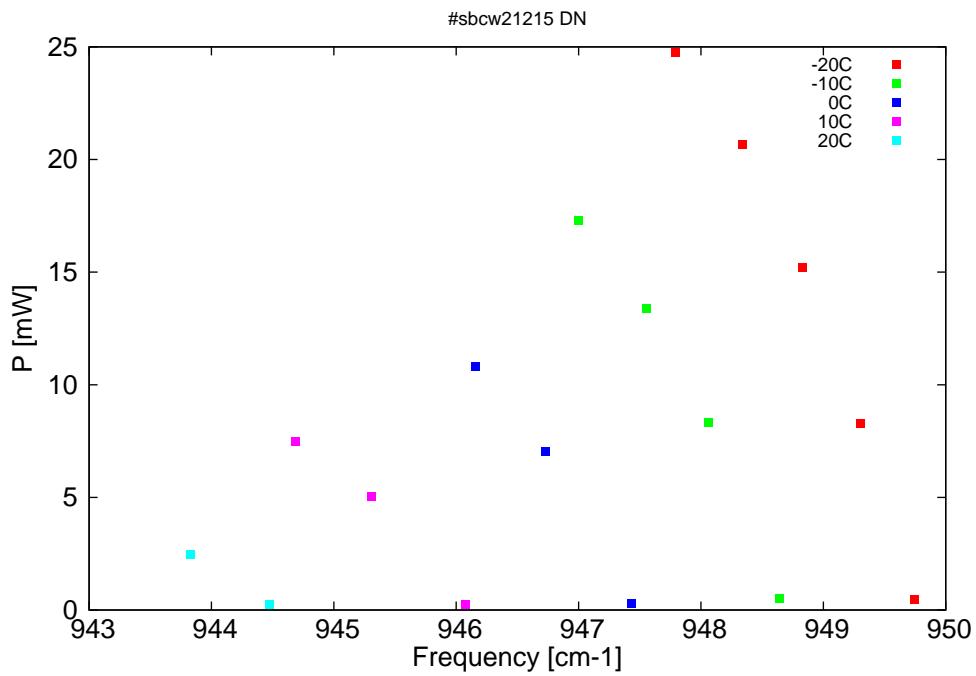


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

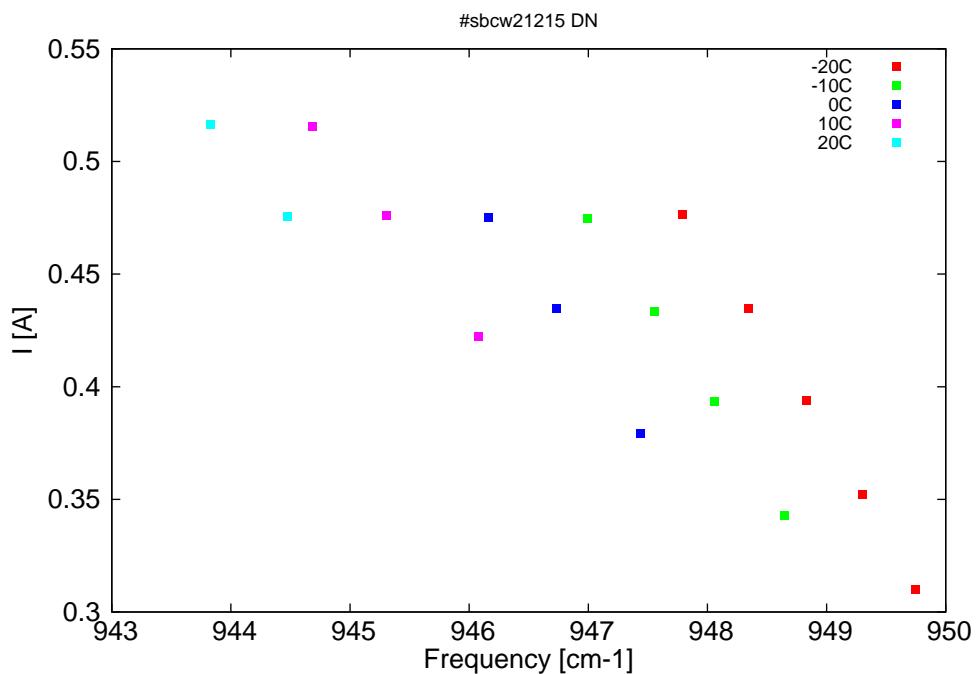


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm $^{-1}$]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10529.1	949.7	0.5	-20	8.65	0.31
10534.1	949.3	8.3	-20	8.91	0.352
10539.3	948.8	15.2	-20	9.17	0.394
10544.7	948.3	20.6	-20	9.41	0.435
10550.9	947.8	24.7	-20	9.67	0.476
10541.4	948.6	0.5	-10	8.77	0.343
10547.9	948.1	8.3	-10	9.08	0.393
10553.5	947.6	13.4	-10	9.33	0.433
10559.7	947	17.3	-10	9.58	0.475
10554.8	947.4	0.3	0	8.91	0.379
10562.7	946.7	7	0	9.26	0.435
10569	946.2	10.8	0	9.51	0.475
10570	946.1	0.3	10	9.12	0.422
10578.6	945.3	5.1	10	9.46	0.476
10585.6	944.7	7.5	10	9.71	0.516
10587.9	944.5	0.2	20	9.4	0.476
10595.2	943.8	2.5	20	9.66	0.516

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

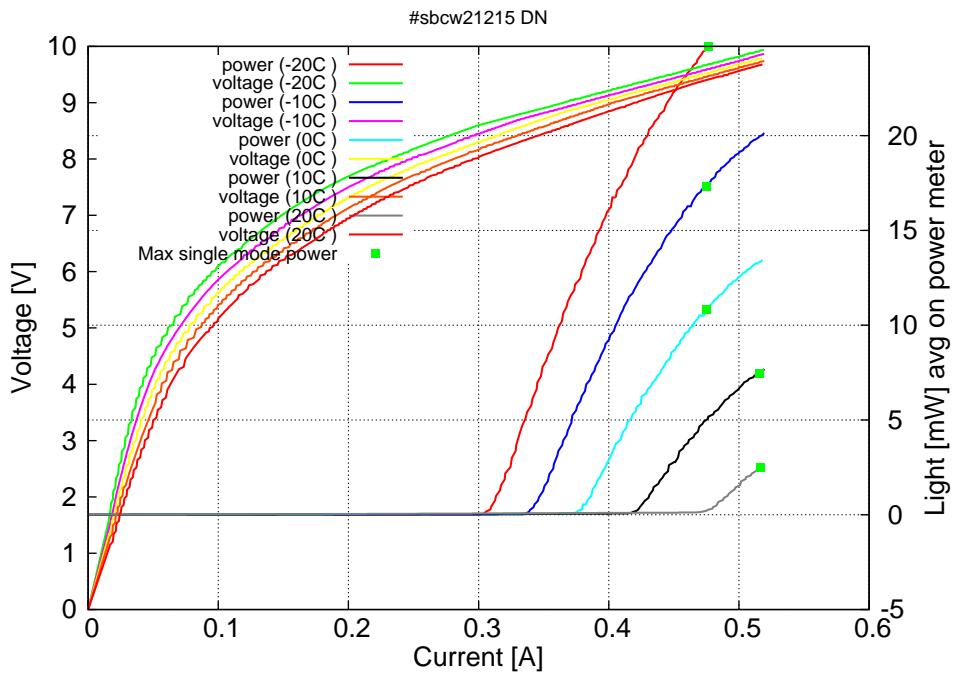


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.30A$ / $V_{th}=8.6V$ (2-wires measurements). Maximum operation current: 0.48A between -20C and 0C, 0.52A at 10C and 20C.

Figure 3: spectra at different temperatures for various DC currents

