

Datasheet for #sbcw22422 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 #sbcw22422 DN (please note that AlN submount numbering is A0YHE)

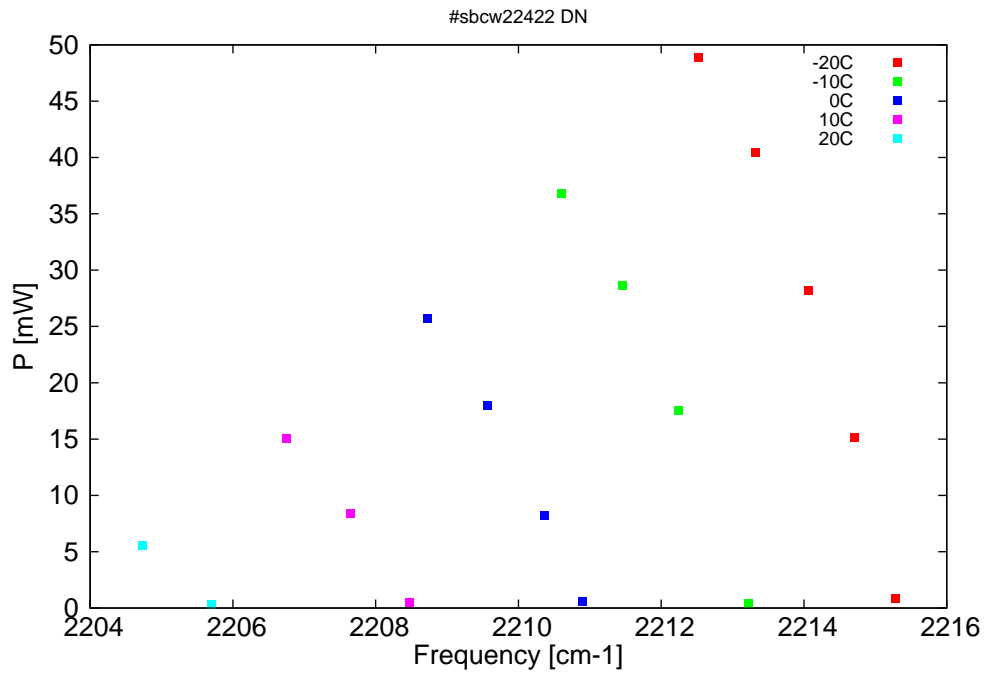


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

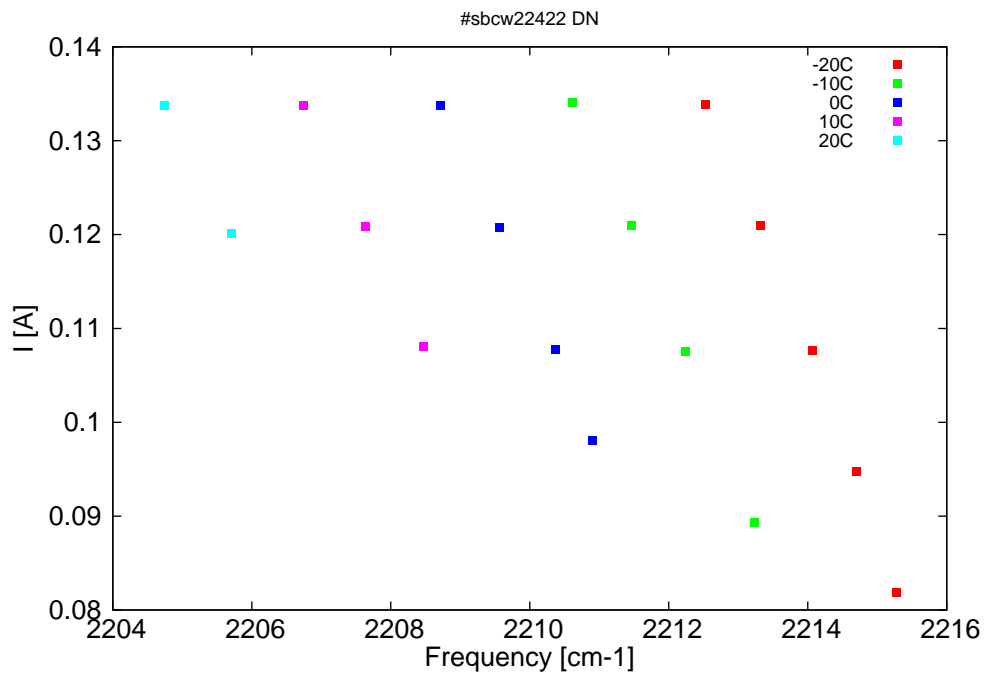


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4514.1	2215.3	0.8	-20	9.25	0.082
4515.3	2214.7	15.1	-20	9.49	0.095
4516.6	2214.1	28.2	-20	9.74	0.108
4518.1	2213.3	40.4	-20	9.99	0.121
4519.7	2212.5	48.9	-20	10.25	0.134
4518.3	2213.2	0.4	-10	9.35	0.089
4520.3	2212.2	17.6	-10	9.69	0.108
4521.9	2211.5	28.7	-10	9.96	0.121
4523.6	2210.6	36.8	-10	10.23	0.134
4523	2210.9	0.6	0	9.49	0.098
4524.1	2210.4	8.2	0	9.67	0.108
4525.8	2209.6	18	0	9.94	0.121
4527.5	2208.7	25.7	0	10.2	0.134
4528	2208.5	0.5	10	9.66	0.108
4529.7	2207.6	8.4	10	9.92	0.121
4531.5	2206.8	15.1	10	10.18	0.134
4533.7	2205.7	0.3	20	9.91	0.12
4535.7	2204.7	5.6	20	10.19	0.134

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

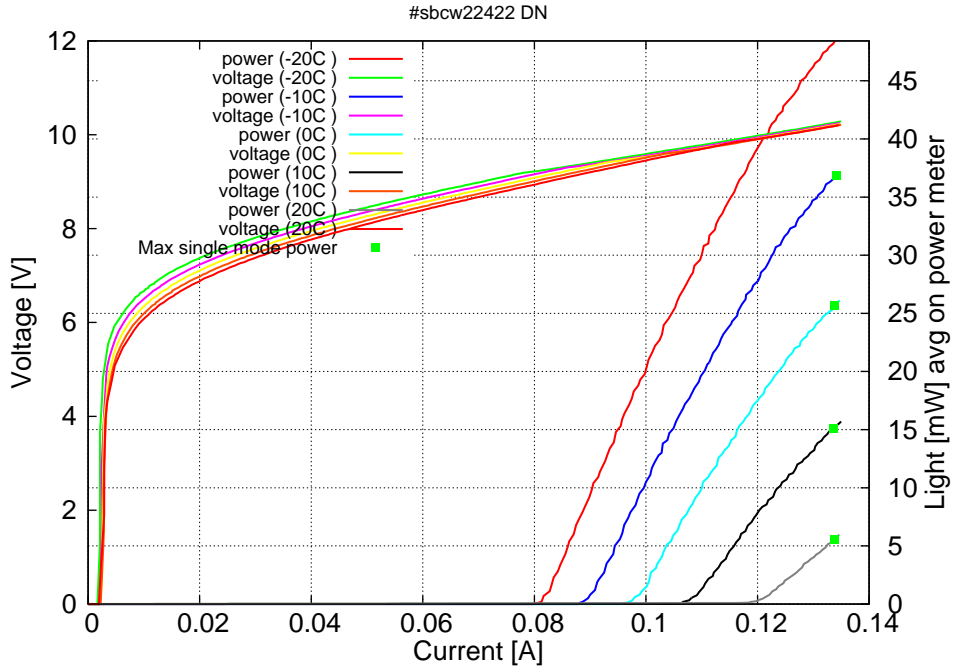


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=9.2V$ (2-wires measurements). Maximum operation current: 0.135A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

