

Datasheet for #sbcw22434 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 #sbcw22434 DN (please note that AlN submount numbering is A0VUV)

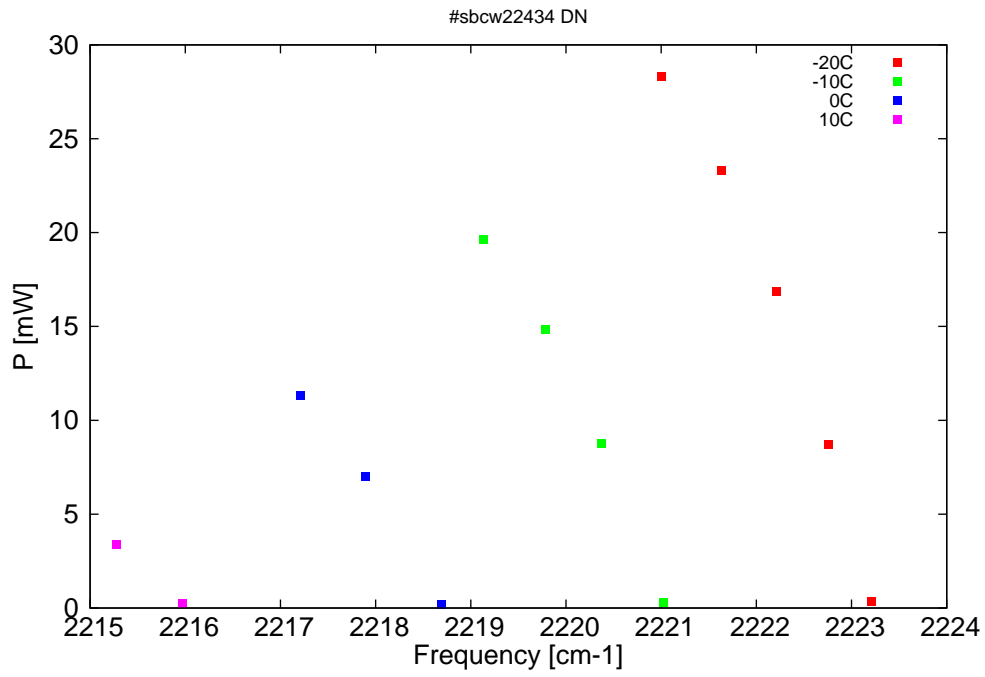


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

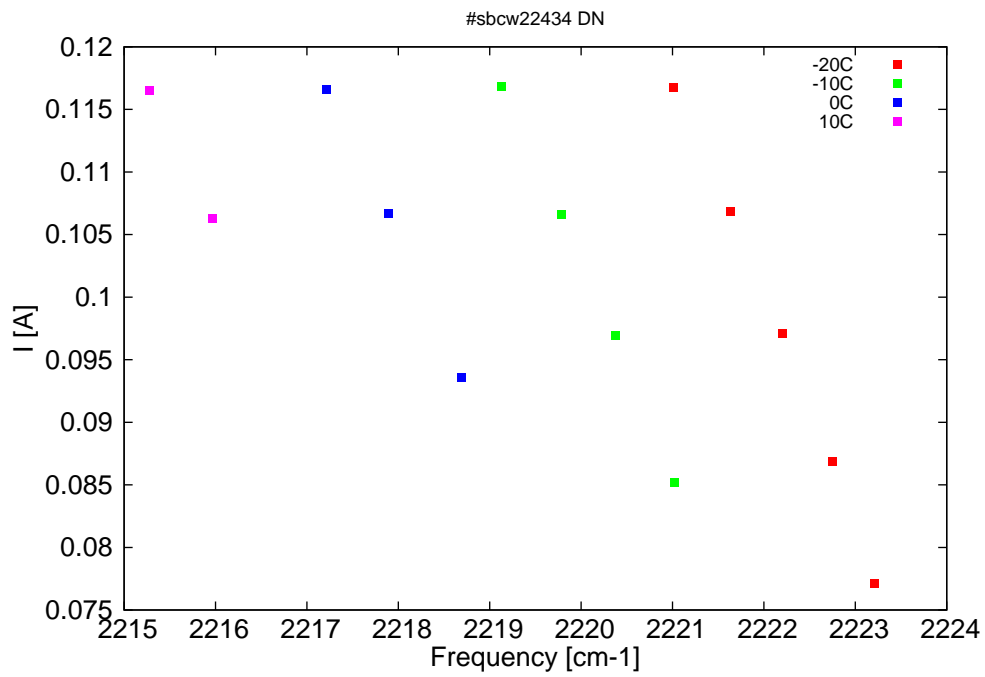


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4498	2223.2	0.4	-20	9.42	0.077
4498.9	2222.8	8.7	-20	9.62	0.087
4500	2222.2	16.9	-20	9.86	0.097
4501.2	2221.6	23.3	-20	10.08	0.107
4502.5	2221	28.3	-20	10.32	0.117
4502.4	2221	0.3	-10	9.57	0.085
4503.7	2220.4	8.7	-10	9.83	0.097
4504.9	2219.8	14.8	-10	10.06	0.107
4506.3	2219.1	19.7	-10	10.31	0.117
4507.2	2218.7	0.2	0	9.77	0.094
4508.8	2217.9	7	0	10.06	0.107
4510.2	2217.2	11.3	0	10.31	0.117
4512.7	2216	0.2	10	10.08	0.106
4514.1	2215.3	3.4	10	10.32	0.116

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

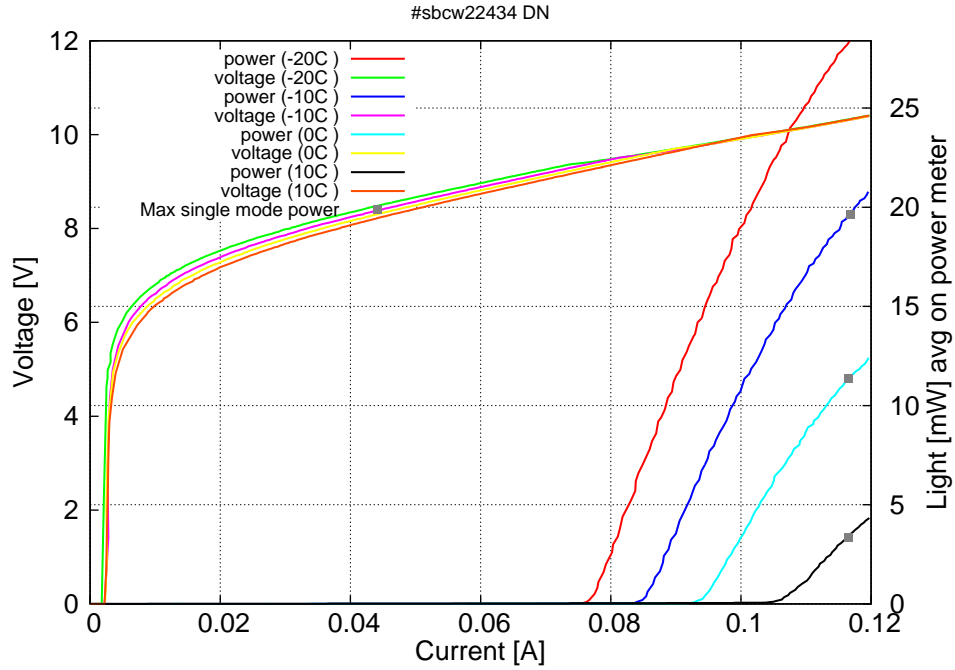


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.077A$ / $V_{th}=9.4V$ (2-wires measurements). Maximum operation current: 0.120A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

