

Datasheet for #sbcw24282 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 #sbcw24282 DN (please note that AlN submount numbering is A0U6G)

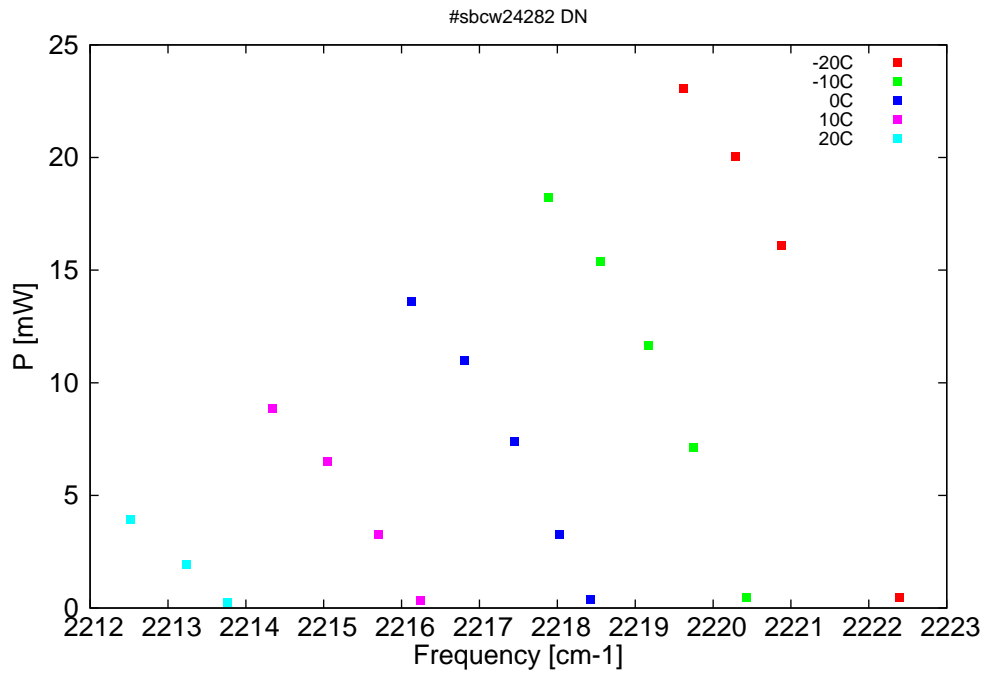


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

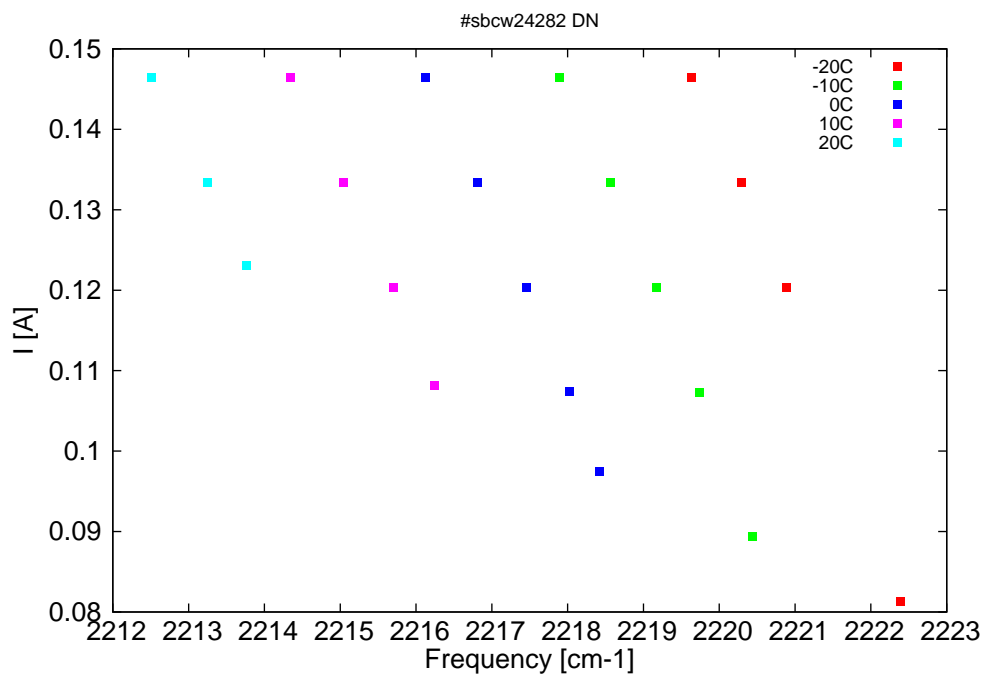


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4499.7	2222.4	0.5	-20	12.56	0.081
4502.7	2220.9	16.1	-20	13.32	0.12
4503.9	2220.3	20	-20	13.6	0.133
4505.3	2219.6	23	-20	13.87	0.146
4503.6	2220.4	0.5	-10	12.68	0.089
4505	2219.7	7.1	-10	13.02	0.107
4506.2	2219.2	11.6	-10	13.27	0.12
4507.4	2218.6	15.4	-10	13.54	0.133
4508.8	2217.9	18.2	-10	13.82	0.146
4507.7	2218.4	0.4	0	12.8	0.098
4508.5	2218	3.2	0	12.98	0.107
4509.7	2217.5	7.4	0	13.23	0.12
4511	2216.8	11	0	13.49	0.133
4512.4	2216.1	13.6	0	13.76	0.146
4512.1	2216.2	0.3	10	12.99	0.108
4513.2	2215.7	3.2	10	13.19	0.12
4514.6	2215	6.5	10	13.45	0.133
4516	2214.3	8.9	10	13.72	0.146
4517.2	2213.8	0.2	20	13.26	0.123
4518.3	2213.2	1.9	20	13.44	0.133
4519.7	2212.5	3.9	20	13.7	0.146

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

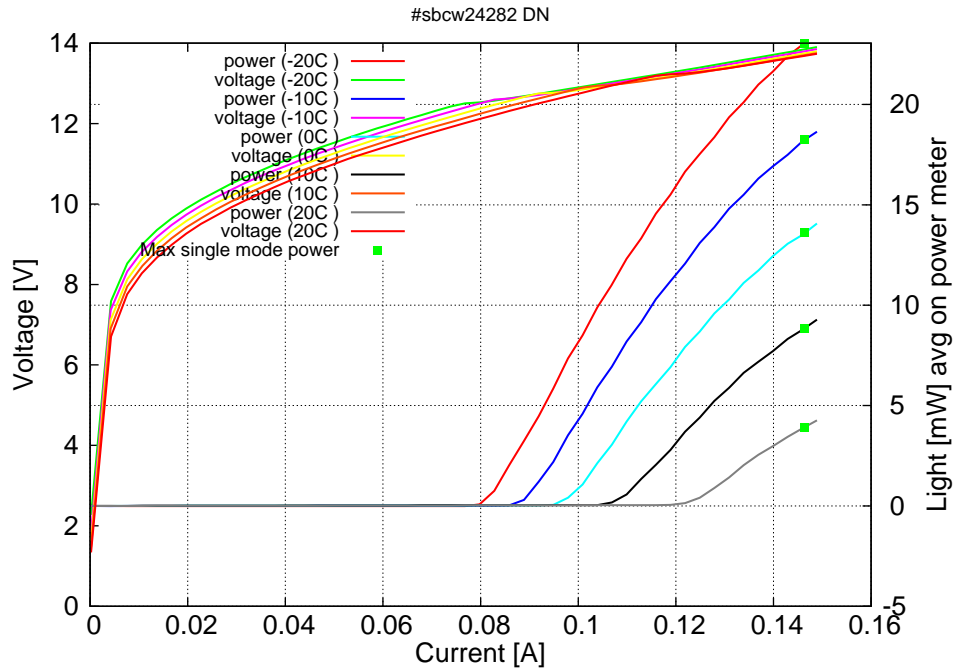


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=12.5V$ (2-wires measurements). Maximum operation

current: 0.15A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

