

Datasheet for #sbcw24281 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 #sbcw24281 DN (please note that AlN submount numbering is A0V7G)

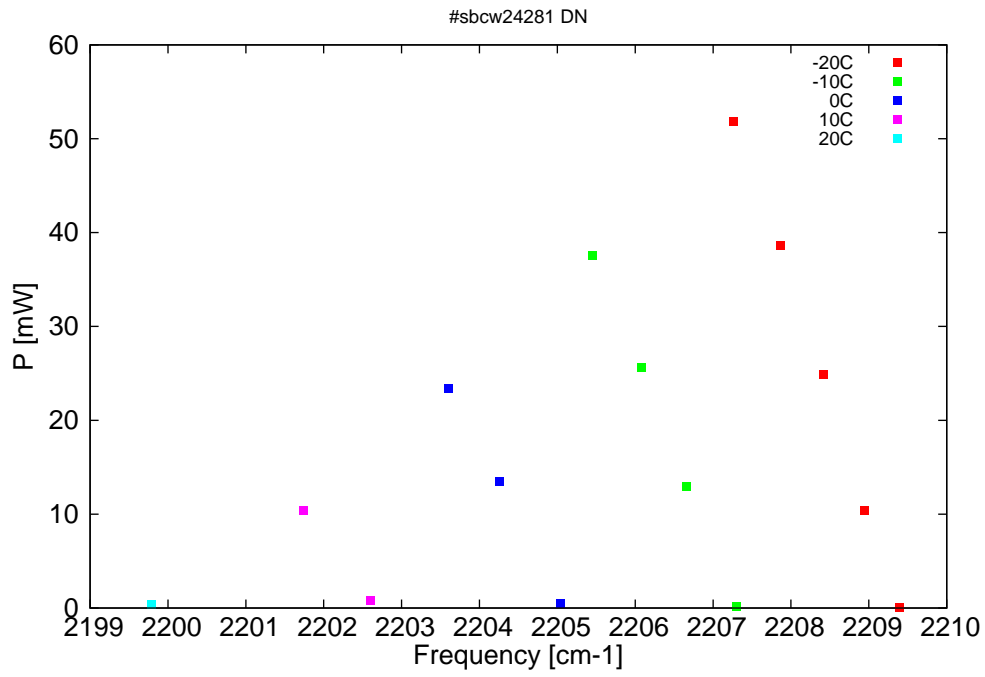


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

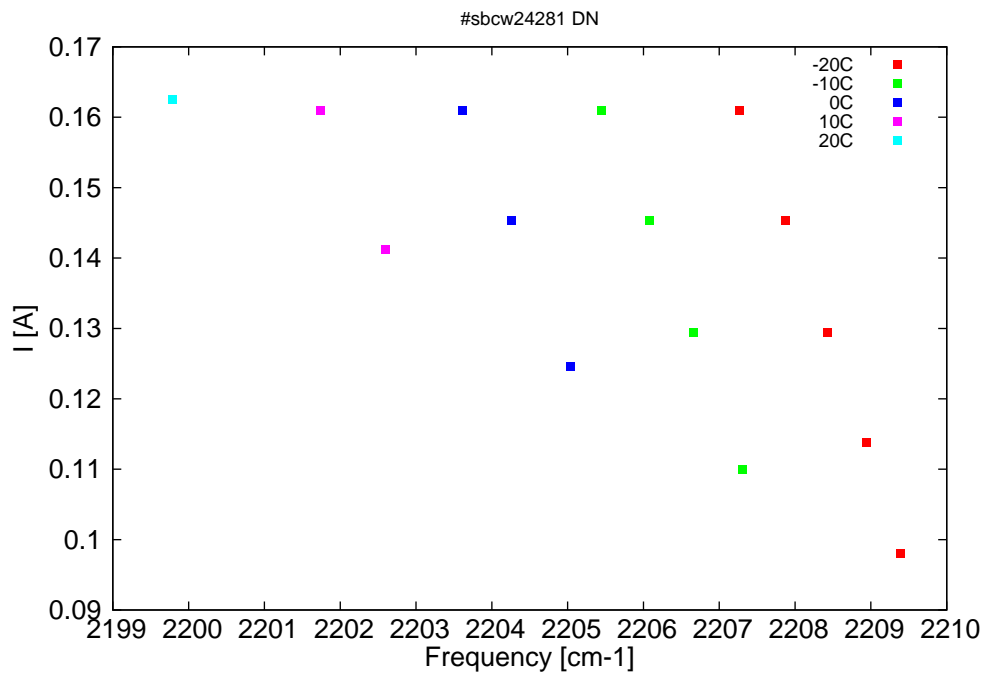


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4526.1	2209.4	0	-20	11.59	0.098
4527.1	2208.9	10.4	-20	11.77	0.114
4528.1	2208.4	24.9	-20	11.95	0.13
4529.3	2207.9	38.6	-20	12.14	0.145
4530.5	2207.3	51.8	-20	12.34	0.161
4530.4	2207.3	0.1	-10	11.69	0.11
4531.7	2206.7	13	-10	11.91	0.13
4532.9	2206.1	25.6	-10	12.1	0.145
4534.2	2205.4	37.5	-10	12.3	0.161
4535.1	2205	0.5	0	11.82	0.125
4536.7	2204.3	13.5	0	12.06	0.145
4538	2203.6	23.4	0	12.26	0.161
4540.1	2202.6	0.8	10	11.98	0.141
4541.9	2201.7	10.4	10	12.22	0.161
4545.9	2199.8	0.4	20	12.24	0.163

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

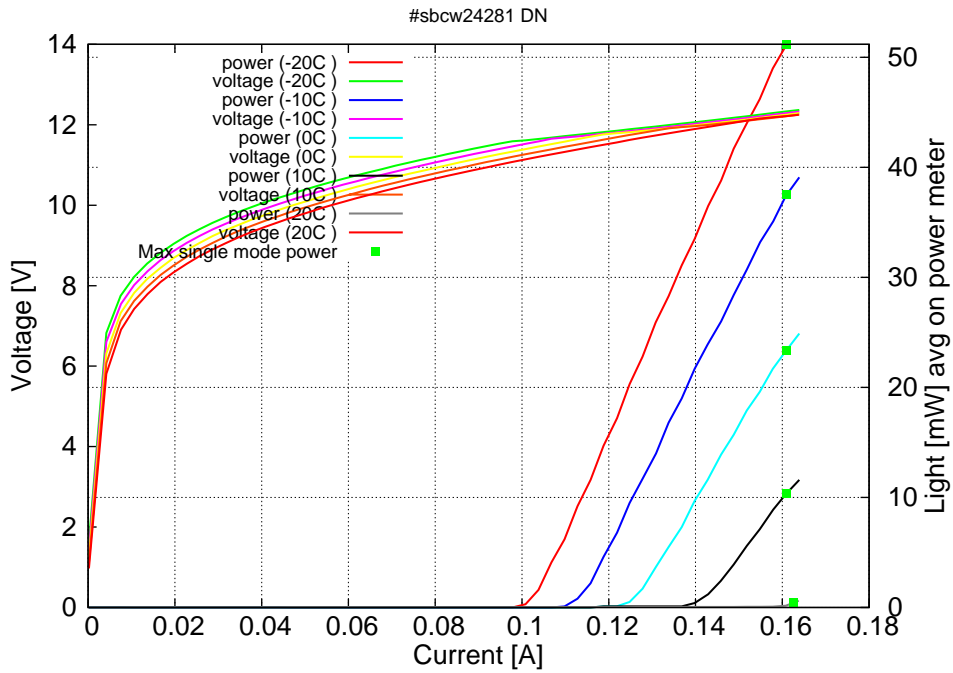


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=11.6V$ (2-wires measurements). Maximum operation current: 0.165A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

