

Datasheet for #sbcw24906 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 #sbcw24906 DN (please note that AlN submount numbering is A113D)

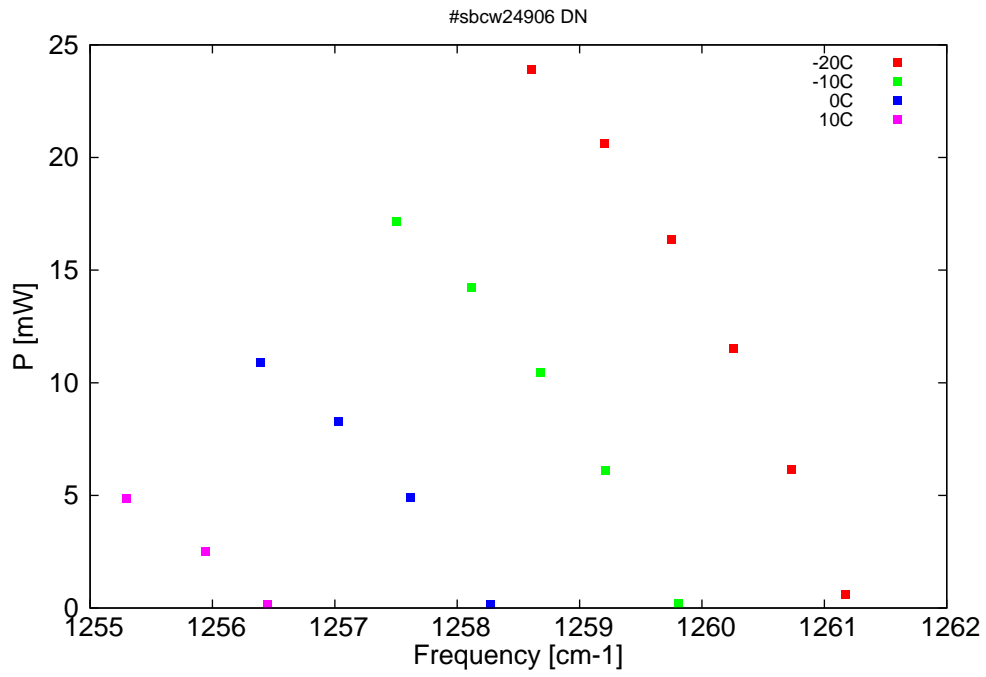


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

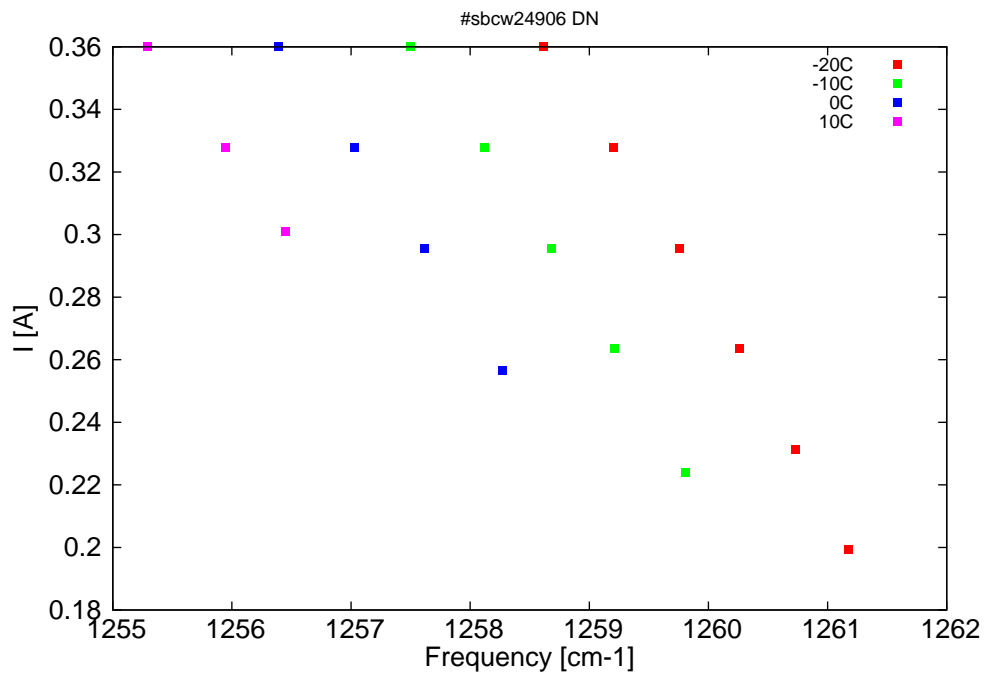


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm^{-1}]	P[mW]	Temp[$^{\circ}\text{C}$]	U_{LASER} [V]	I[A]
7929.1	1261.2	0.6	-20	7.83	0.199
7931.9	1260.7	6.2	-20	8.02	0.231
7934.9	1260.3	11.5	-20	8.2	0.264
7938.1	1259.8	16.4	-20	8.39	0.296
7941.5	1259.2	20.6	-20	8.58	0.328
7945.3	1258.6	23.9	-20	8.79	0.36
7937.7	1259.8	0.2	-10	7.91	0.224
7941.5	1259.2	6.1	-10	8.14	0.264
7944.8	1258.7	10.5	-10	8.33	0.296
7948.4	1258.1	14.2	-10	8.52	0.328
7952.3	1257.5	17.2	-10	8.74	0.36
7947.4	1258.3	0.2	0	8.04	0.257
7951.6	1257.6	4.9	0	8.27	0.296
7955.3	1257	8.3	0	8.47	0.328
7959.3	1256.4	10.9	0	8.68	0.36
7958.9	1256.4	0.1	10	8.25	0.301
7962.1	1255.9	2.5	10	8.41	0.328
7966.3	1255.3	4.9	10	8.63	0.36

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

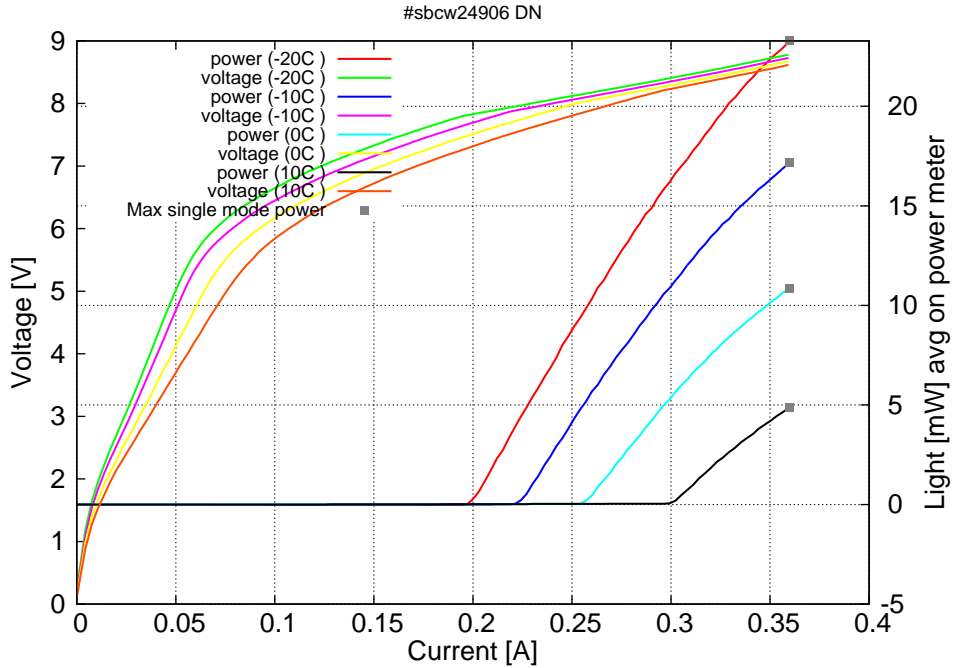


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.19\text{A}$ / $V_{th}=7.8\text{V}$ (2-wires measurements). Maximum operation current: 0.360A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

