

Datasheet for #sbcw24904 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 #sbcw24904 DN (please note that AlN submount numbering is A11W2)

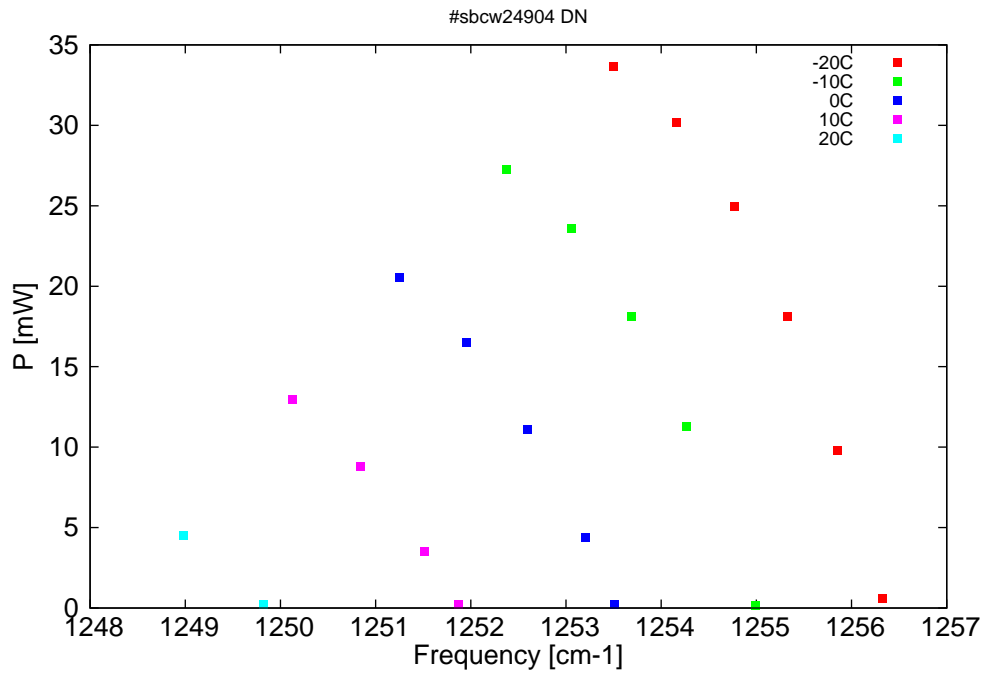


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

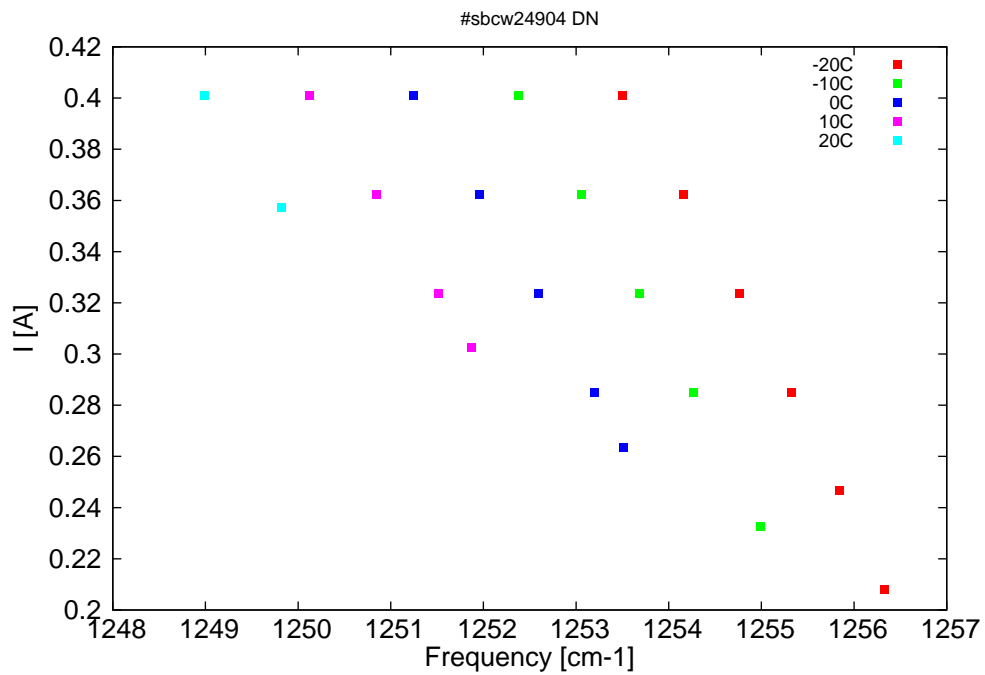


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7959.7	1256.3	0.6	-20	7.6	0.208
7962.7	1255.8	9.8	-20	7.78	0.247
7966	1255.3	18.1	-20	7.96	0.285
7969.6	1254.8	24.9	-20	8.15	0.324
7973.4	1254.2	30.2	-20	8.33	0.362
7977.7	1253.5	33.7	-20	8.52	0.401
7968.2	1255	0.2	-10	7.66	0.233
7972.8	1254.3	11.3	-10	7.91	0.285
7976.5	1253.7	18.1	-10	8.1	0.324
7980.5	1253.1	23.6	-10	8.29	0.362
7984.8	1252.4	27.3	-10	8.49	0.401
7977.6	1253.5	0.2	0	7.75	0.263
7979.6	1253.2	4.4	0	7.86	0.285
7983.4	1252.6	11.1	0	8.06	0.324
7987.5	1252	16.5	0	8.25	0.362
7992	1251.2	20.6	0	8.46	0.401
7988.1	1251.9	0.2	10	7.91	0.302
7990.3	1251.5	3.5	10	8.02	0.324
7994.6	1250.8	8.8	10	8.23	0.362
7999.2	1250.1	12.9	10	8.43	0.401
8001.1	1249.8	0.2	20	8.16	0.357
8006.5	1249	4.5	20	8.4	0.401

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

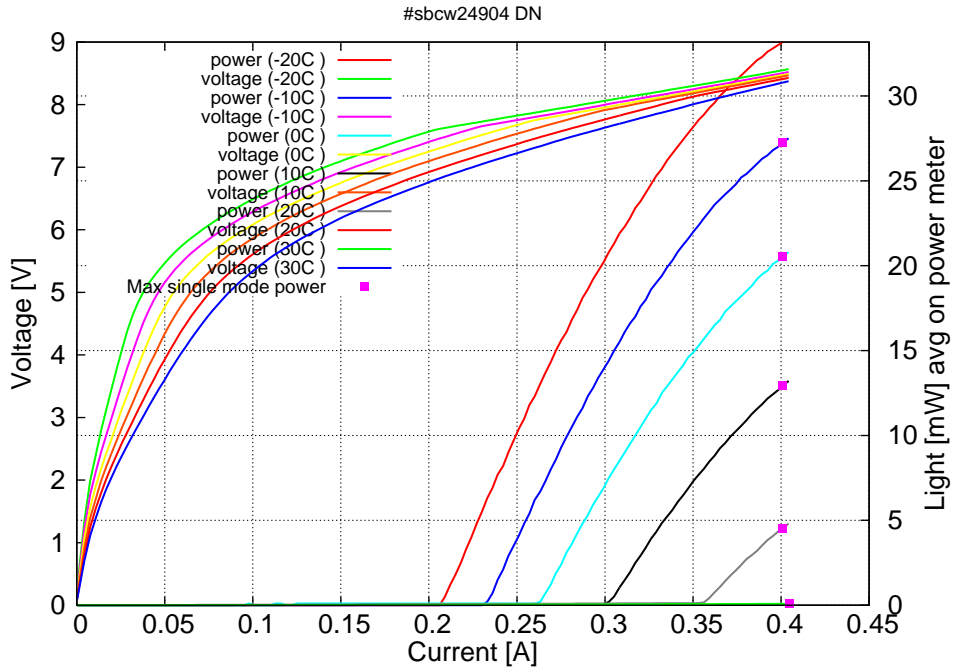


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.20A$ / $V_{th}=7.6V$ (2-wires measurements). Maximum operation current: 0.405A for all temperatures.

