

Datasheet for #sbcw24476 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 #sbcw24476 DN (please note that AlN submount numbering is A1307)

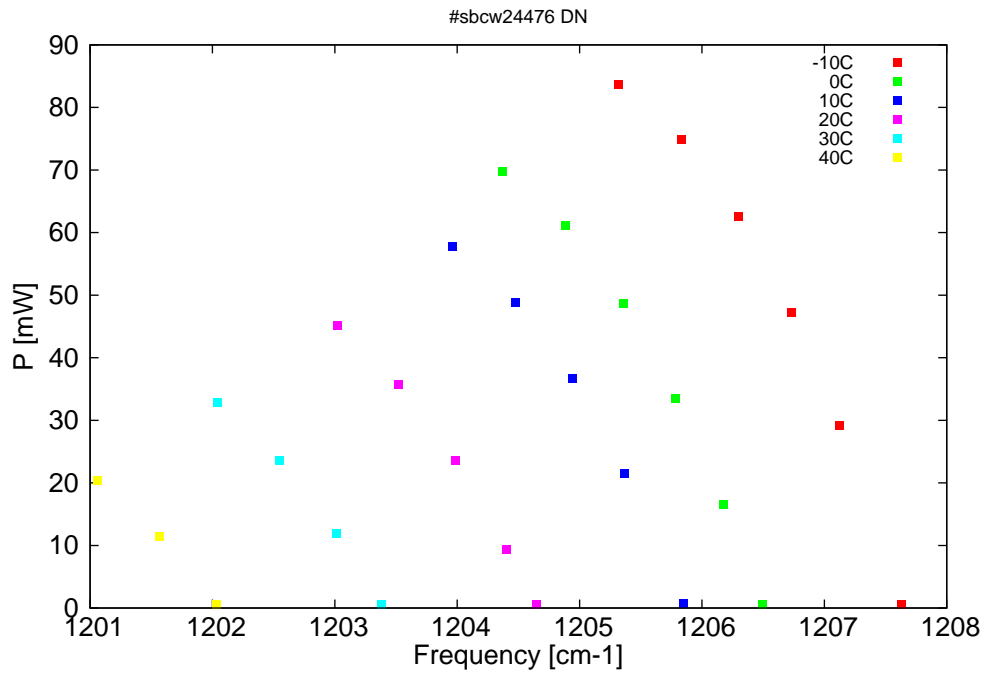


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

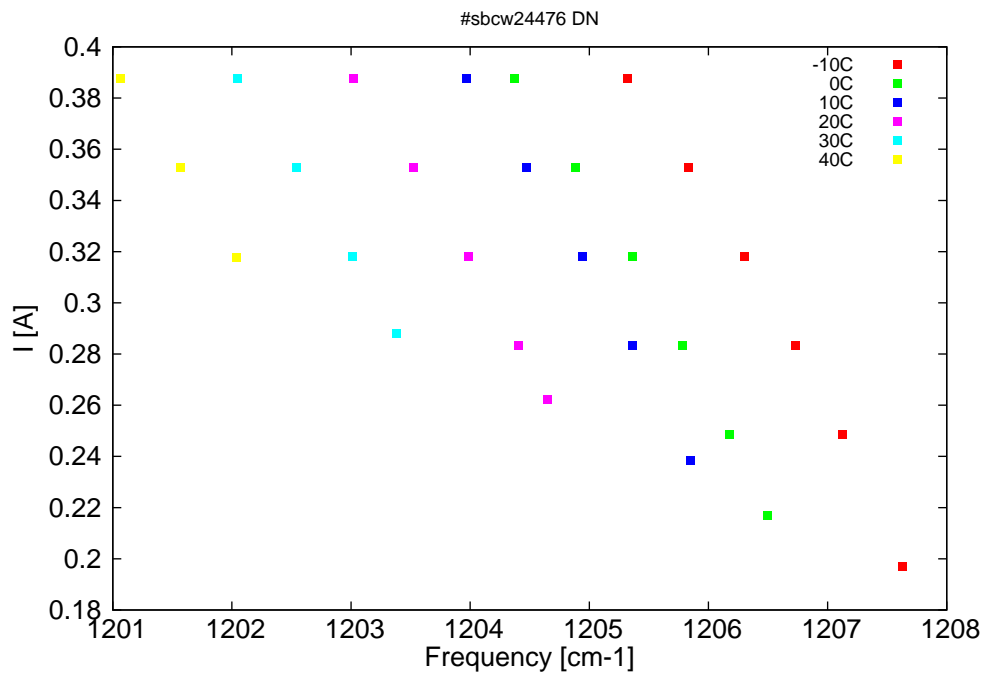


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
8280.7	1207.6	0.6	-10	8.92	0.197
8284.2	1207.1	29.2	-10	9.72	0.248
8286.8	1206.7	47.2	-10	10.26	0.283
8289.8	1206.3	62.6	-10	10.79	0.318
8293.1	1205.8	74.9	-10	11.29	0.353
8296.6	1205.3	83.7	-10	11.76	0.388
8288.5	1206.5	0.6	0	9	0.217
8290.7	1206.2	16.5	0	9.45	0.248
8293.3	1205.8	33.5	0	9.95	0.283
8296.3	1205.4	48.6	0	10.44	0.318
8299.5	1204.9	61.2	0	10.91	0.353
8303.1	1204.4	69.8	0	11.36	0.388
8292.9	1205.9	0.6	10	9.08	0.239
8296.2	1205.4	21.5	10	9.66	0.283
8299.2	1204.9	36.7	10	10.12	0.318
8302.4	1204.5	48.8	10	10.56	0.353
8305.9	1204	57.8	10	10.97	0.388
8301.2	1204.6	0.5	20	9.17	0.262
8302.8	1204.4	9.3	20	9.43	0.283
8305.8	1204	23.6	20	9.85	0.318
8308.9	1203.5	35.7	20	10.26	0.353
8312.4	1203	45.2	20	10.66	0.388
8309.9	1203.4	0.6	30	9.28	0.288
8312.5	1203	11.9	30	9.62	0.318
8315.7	1202.5	23.6	30	10	0.353
8319.2	1202	32.9	30	10.37	0.388
8319.2	1202	0.5	40	9.4	0.318
8322.5	1201.6	11.4	40	9.77	0.353
8326	1201.1	20.5	40	10.12	0.388

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

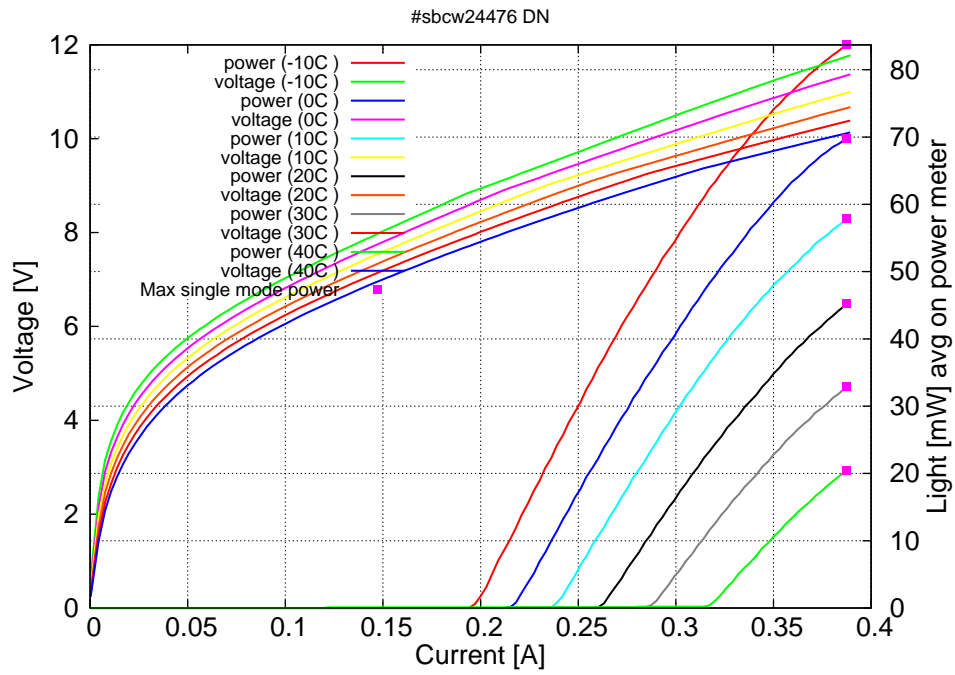


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.19A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.39A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

