

Datasheet for #sbcw22526 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 #sbcw22526 DN (please note that AlN submount numbering is A0TD1)

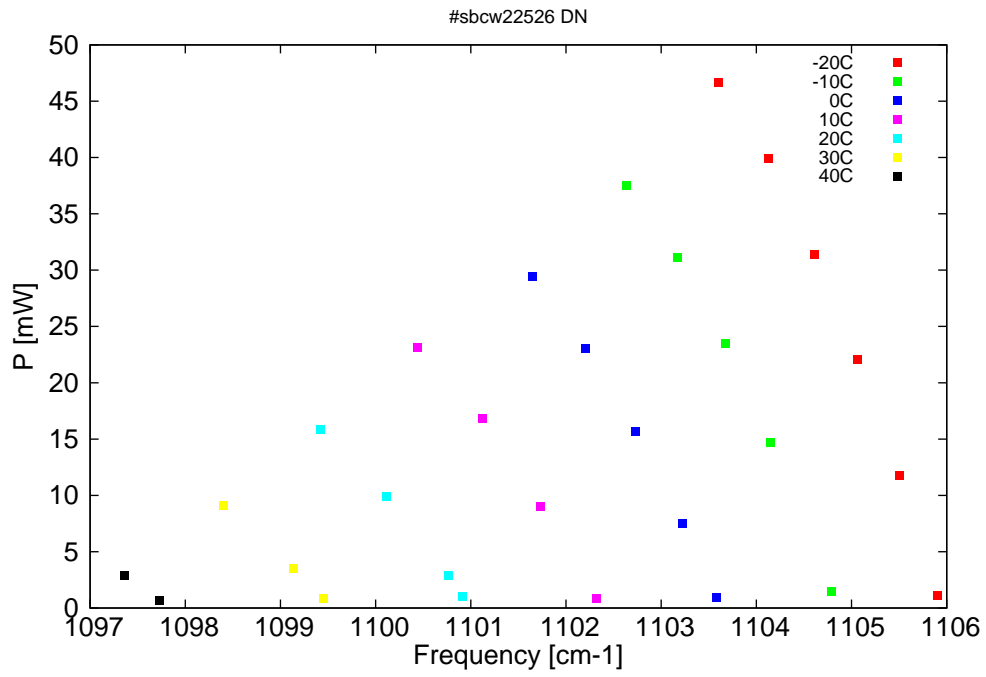


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

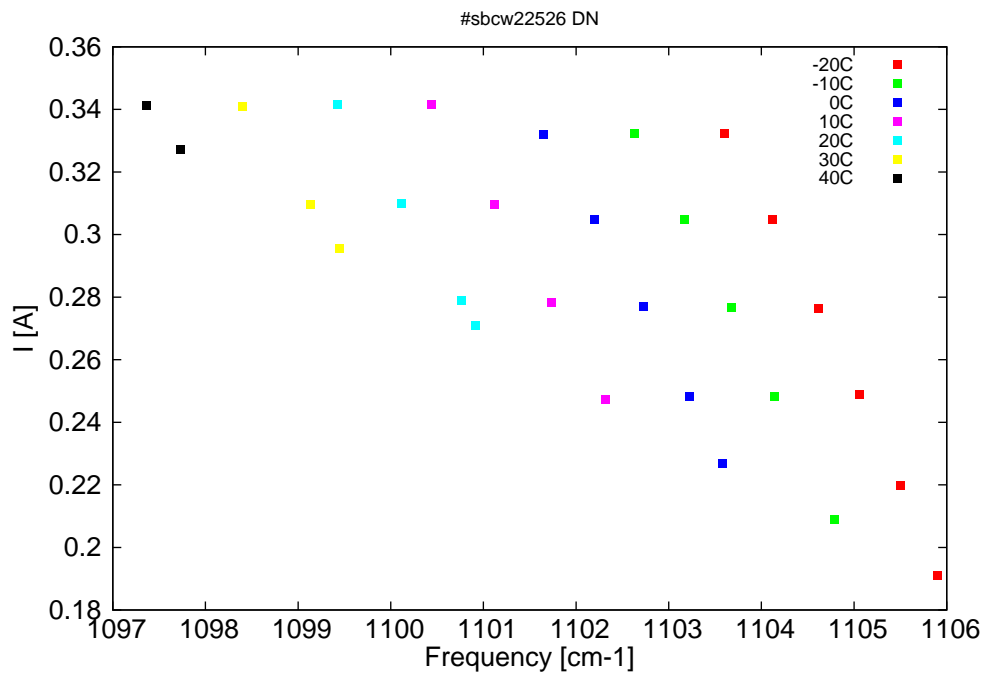


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9042.4	1105.9	1.1	-20	9.54	0.191
9045.6	1105.5	11.8	-20	9.87	0.22
9049.3	1105.1	22.1	-20	10.19	0.249
9053	1104.6	31.3	-20	10.48	0.276
9056.9	1104.1	39.9	-20	10.78	0.305
9061.3	1103.6	46.7	-20	11.1	0.332
9051.5	1104.8	1.5	-10	9.66	0.209
9056.8	1104.1	14.7	-10	10.11	0.248
9060.6	1103.7	23.4	-10	10.42	0.277
9064.8	1103.2	31.1	-10	10.73	0.305
9069.2	1102.6	37.5	-10	11.05	0.332
9061.4	1103.6	0.9	0	9.8	0.227
9064.4	1103.2	7.5	0	10.05	0.248
9068.4	1102.7	15.6	0	10.37	0.277
9072.8	1102.2	23.1	0	10.68	0.305
9077.3	1101.6	29.4	0	11	0.332
9071.8	1102.3	0.9	10	9.98	0.247
9076.6	1101.7	9	10	10.34	0.278
9081.6	1101.1	16.8	10	10.69	0.31
9087.3	1100.4	23.1	10	11.07	0.342
9083.3	1100.9	1	20	10.2	0.271
9084.6	1100.8	2.9	20	10.3	0.279
9089.9	1100.1	9.9	20	10.66	0.31
9095.7	1099.4	15.9	20	11.04	0.342
9095.5	1099.4	0.8	30	10.45	0.295
9098.1	1099.1	3.5	30	10.62	0.31
9104.2	1098.4	9.1	30	11	0.341
9109.7	1097.7	0.7	40	10.79	0.327
9112.8	1097.4	2.9	40	10.97	0.341

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

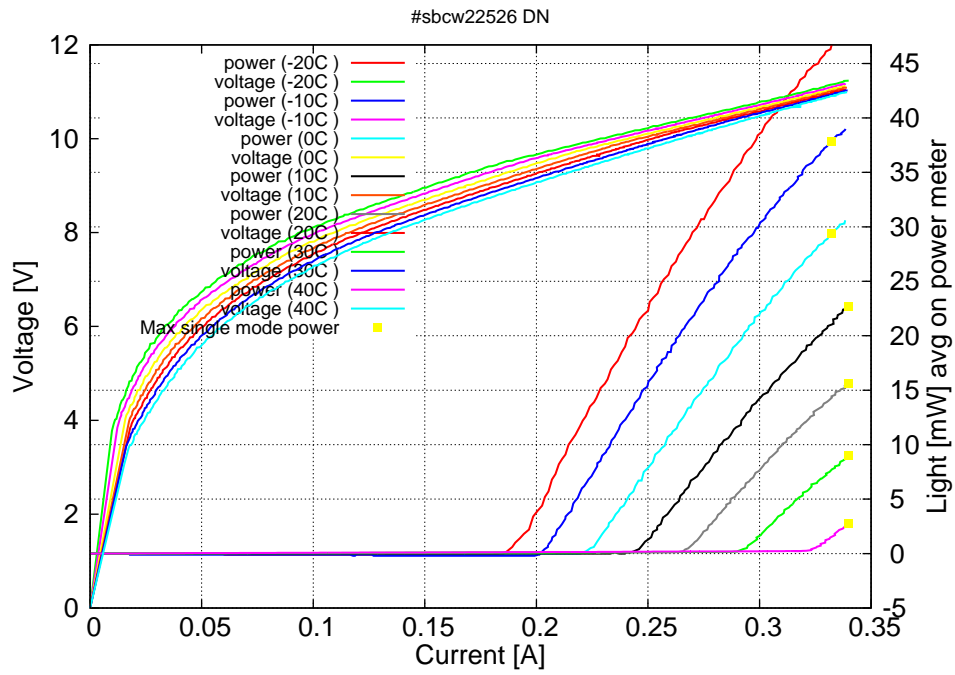


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.19A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.34A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

