

Datasheet for #sbcw22898 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 #sbcw22898 DN (please note that AlN submount numbering is A0NV8)

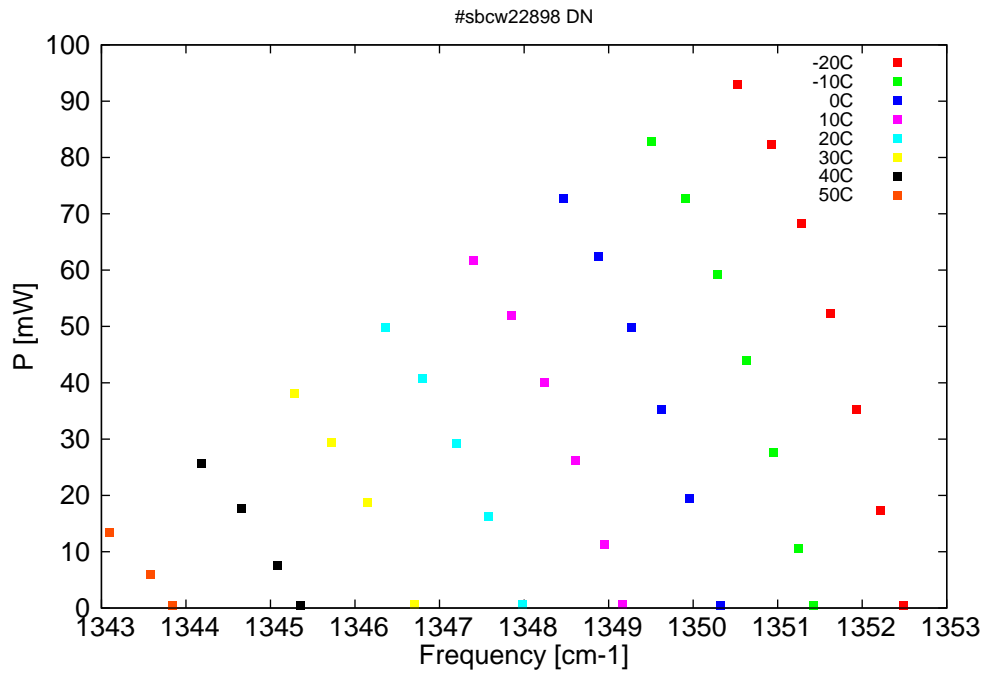


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

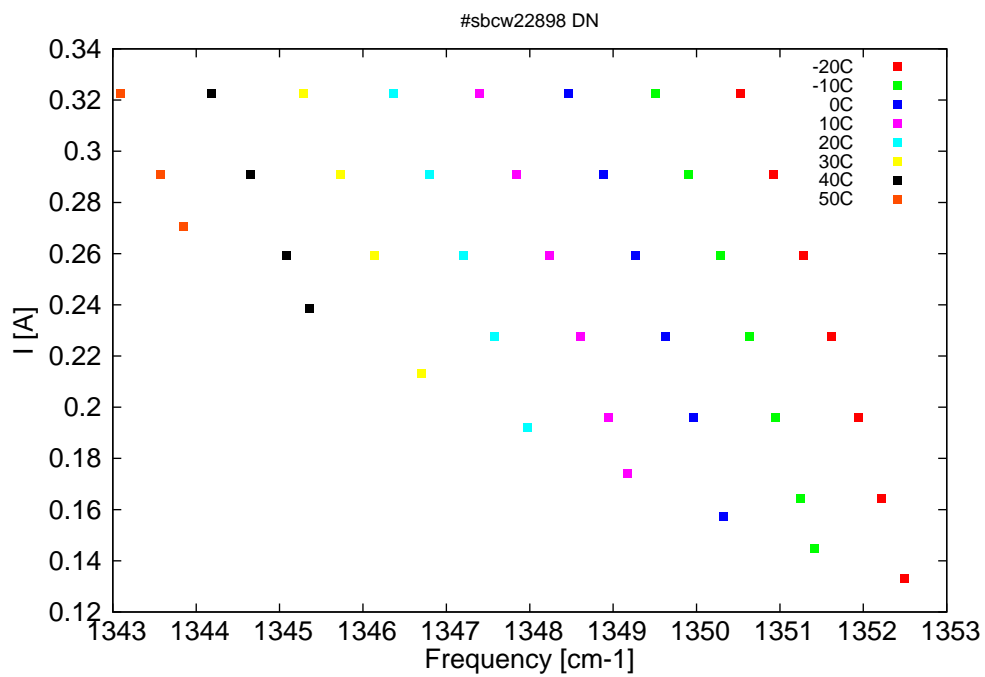


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7393.8	1352.5	0.5	-20	7.99	0.133
7395.2	1352.2	17.3	-20	8.25	0.165
7396.8	1351.9	35.2	-20	8.49	0.196
7398.5	1351.6	52.3	-20	8.73	0.228
7400.4	1351.3	68.3	-20	8.96	0.259
7402.4	1350.9	82.2	-20	9.21	0.291
7404.5	1350.5	93	-20	9.46	0.322
7399.6	1351.4	0.4	-10	8	0.145
7400.6	1351.2	10.5	-10	8.16	0.165
7402.2	1351	27.7	-10	8.4	0.196
7403.9	1350.6	44	-10	8.65	0.228
7405.8	1350.3	59.3	-10	8.88	0.259
7407.9	1349.9	72.6	-10	9.13	0.291
7410.1	1349.5	82.8	-10	9.39	0.322
7405.6	1350.3	0.4	0	8.02	0.158
7407.6	1350	19.4	0	8.32	0.196
7409.5	1349.6	35.3	0	8.56	0.228
7411.4	1349.3	49.8	0	8.81	0.259
7413.5	1348.9	62.4	0	9.05	0.291
7415.8	1348.5	72.6	0	9.31	0.322
7412	1349.2	0.7	10	8.07	0.174
7413.2	1348.9	11.2	10	8.25	0.196
7415.1	1348.6	26.1	10	8.49	0.228
7417.1	1348.2	40	10	8.74	0.259
7419.2	1347.8	52	10	8.98	0.291
7421.7	1347.4	61.6	10	9.24	0.322
7418.5	1348	0.6	20	8.14	0.192
7420.7	1347.6	16.2	20	8.42	0.228
7422.8	1347.2	29.3	20	8.67	0.259
7425	1346.8	40.7	20	8.92	0.291
7427.4	1346.4	49.7	20	9.17	0.322
7425.5	1346.7	0.6	30	8.24	0.213
7428.6	1346.1	18.7	30	8.6	0.259
7430.9	1345.7	29.5	30	8.85	0.291
7433.4	1345.3	38	30	9.1	0.322
7433	1345.4	0.5	40	8.37	0.238
7434.5	1345.1	7.6	40	8.53	0.259
7436.9	1344.7	17.7	40	8.78	0.291
7439.5	1344.2	25.8	40	9.04	0.322
7441.3	1343.8	0.5	50	8.55	0.271
7442.8	1343.6	5.9	50	8.72	0.291
7445.5	1343.1	13.3	50	8.97	0.322

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

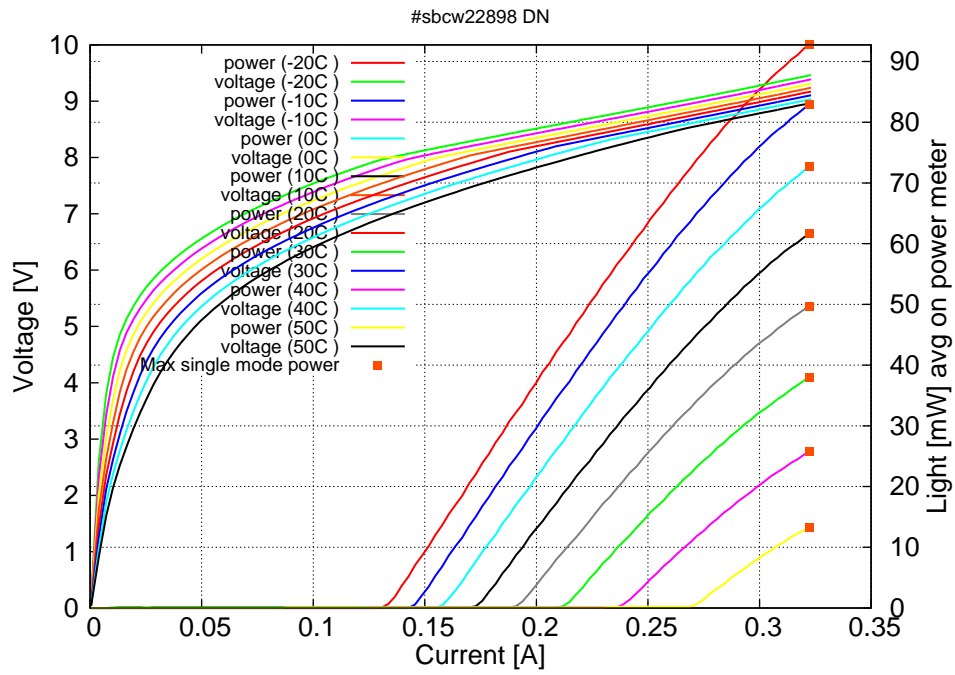


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=8.0V$ (2-wires measurements). Maximum operation current: 0.325A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

