

Datasheet for #sbcw22892 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 #sbcw22892 DN (please note that AlN submount numbering is A0VZG)

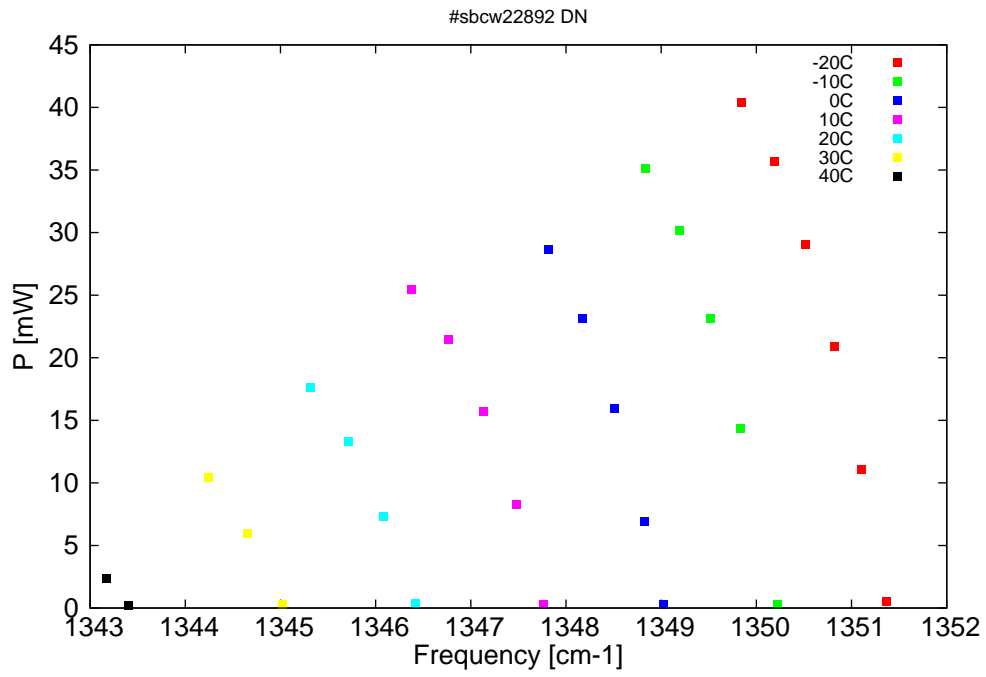


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

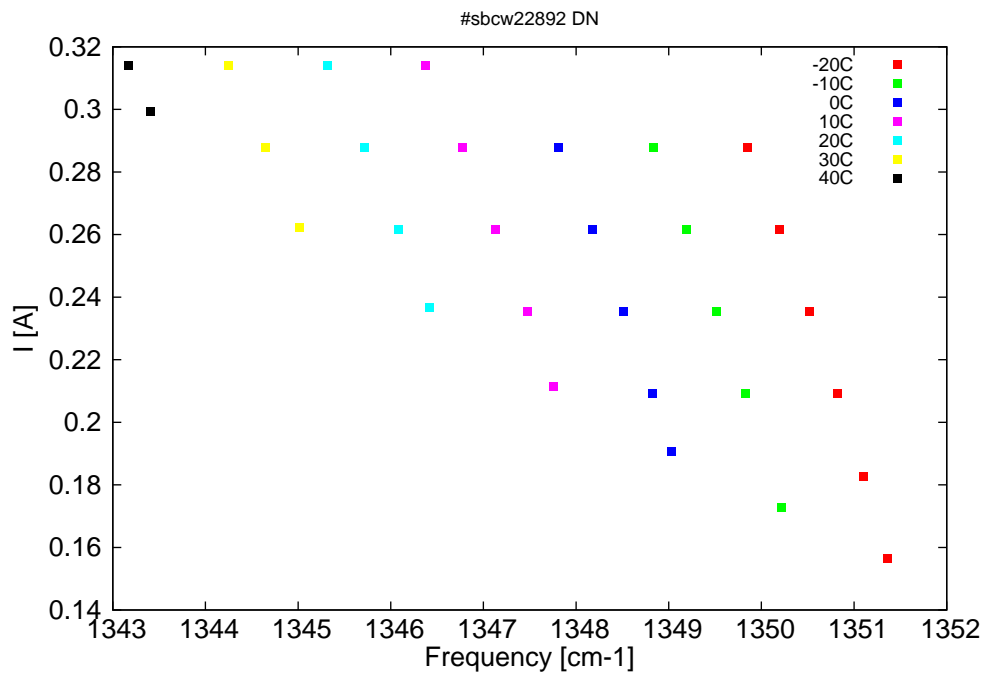


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7399.9	1351.4	0.5	-20	8.93	0.157
7401.4	1351.1	11.1	-20	9.2	0.183
7402.9	1350.8	20.9	-20	9.47	0.209
7404.6	1350.5	29.1	-20	9.74	0.235
7406.4	1350.2	35.7	-20	10.09	0.262
7408.3	1349.8	40.4	-20	10.34	0.288
7406.2	1350.2	0.3	-10	9.01	0.173
7408.3	1349.8	14.4	-10	9.38	0.209
7410	1349.5	23.1	-10	9.63	0.235
7411.8	1349.2	30.2	-10	9.93	0.262
7413.8	1348.8	35.1	-10	10.18	0.288
7412.7	1349	0.3	0	9.02	0.191
7413.9	1348.8	6.9	0	9.2	0.209
7415.6	1348.5	16	0	9.46	0.235
7417.4	1348.2	23.2	0	9.71	0.262
7419.4	1347.8	28.7	0	9.98	0.288
7419.7	1347.8	0.3	10	9.11	0.211
7421.3	1347.5	8.3	10	9.35	0.235
7423.2	1347.1	15.7	10	9.6	0.262
7425.2	1346.8	21.5	10	9.86	0.288
7427.3	1346.4	25.5	10	10.12	0.314
7427.1	1346.4	0.4	20	9.28	0.237
7428.9	1346.1	7.3	20	9.51	0.262
7431	1345.7	13.3	20	9.77	0.288
7433.2	1345.3	17.6	20	10.02	0.314
7434.8	1345	0.3	30	9.44	0.262
7436.9	1344.7	6	30	9.68	0.288
7439.1	1344.2	10.4	30	9.93	0.314
7443.8	1343.4	0.2	40	9.7	0.299
7445.1	1343.2	2.4	40	9.84	0.314

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

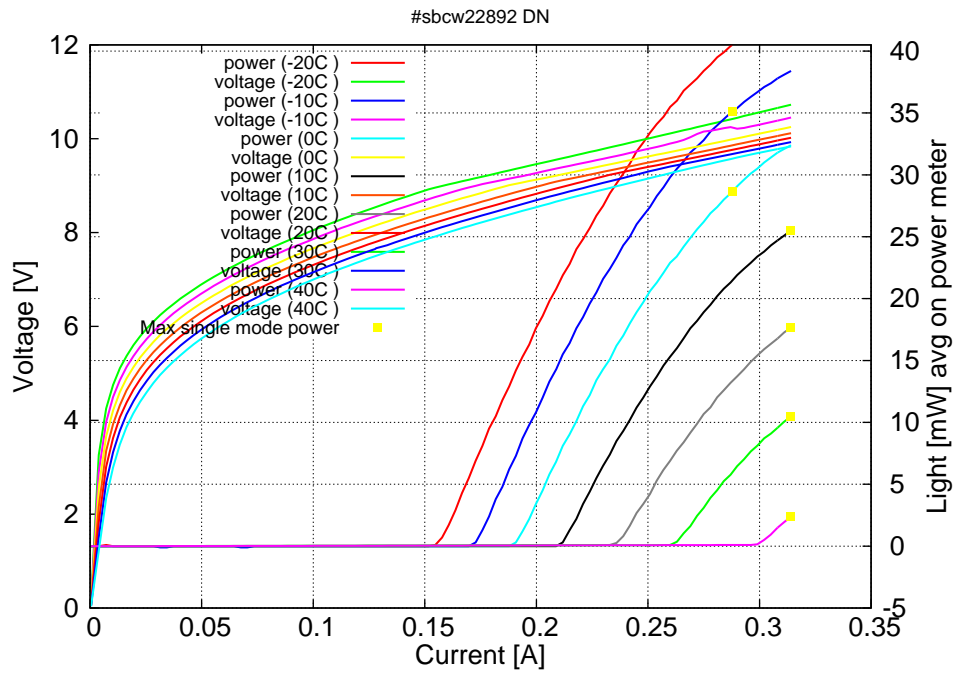


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=8.9V$ (2-wires measurements). Maximum operation current: 0.29A between -20C and 0C, 0.315A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

