

**Datasheet for #sbcw22885 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 #sbcw22885 DN (please note that AlN submount numbering is A0NUP)

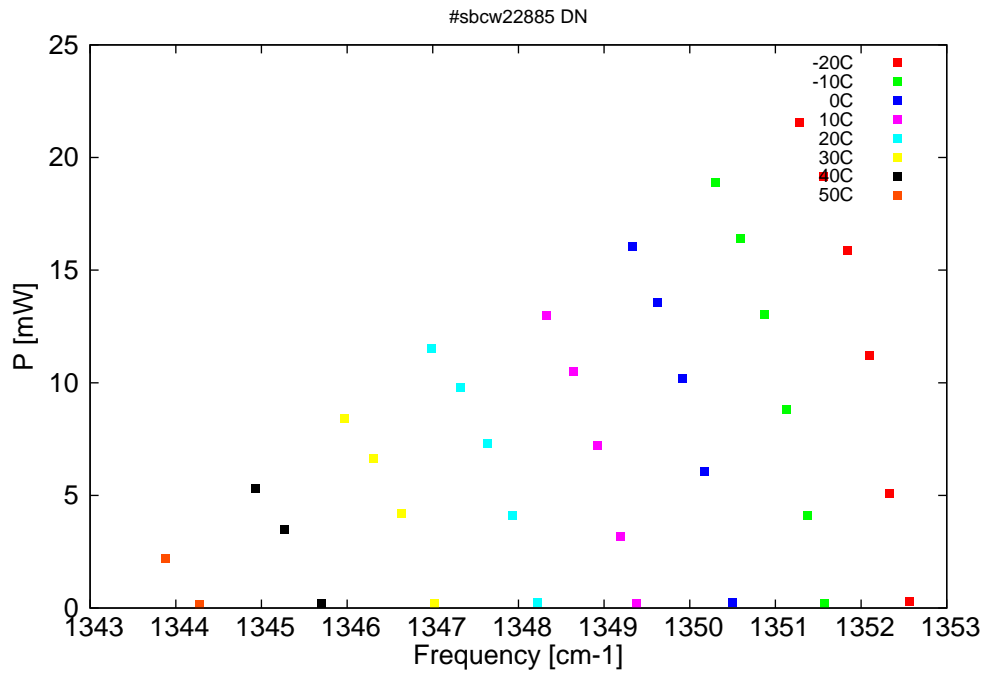


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

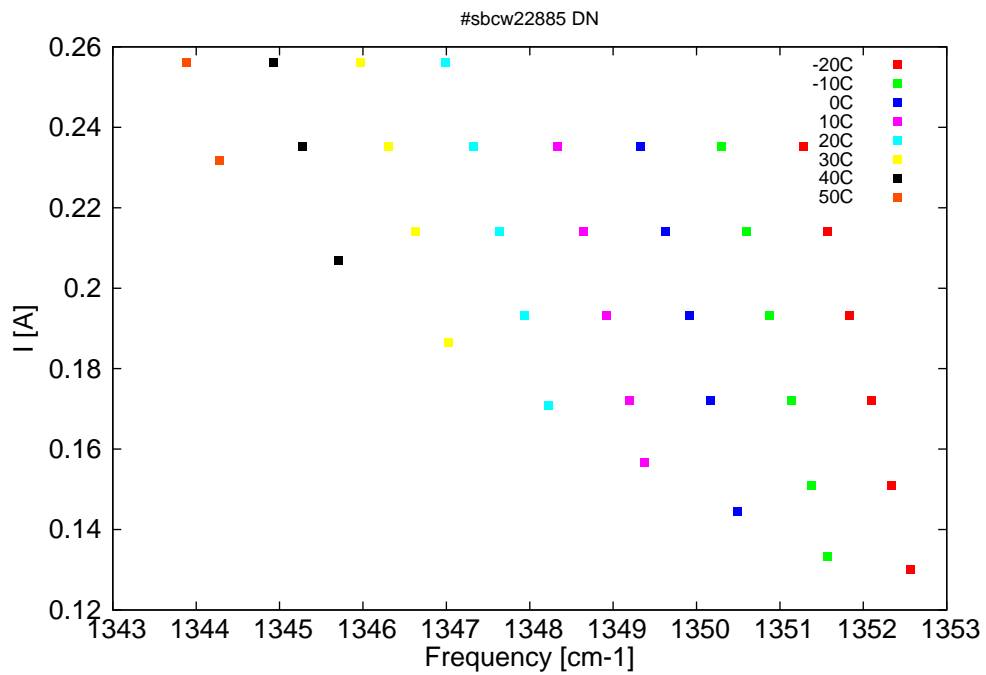


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7393.4	1352.6	0.3	-20	8.73	0.13
7394.6	1352.3	5.1	-20	8.99	0.151
7395.9	1352.1	11.2	-20	9.23	0.172
7397.3	1351.8	15.9	-20	9.48	0.193
7398.8	1351.6	19.2	-20	9.73	0.214
7400.4	1351.3	21.6	-20	9.98	0.235
7398.8	1351.6	0.2	-10	8.66	0.133
7399.9	1351.4	4.1	-10	8.87	0.151
7401.2	1351.1	8.8	-10	9.12	0.172
7402.6	1350.9	13	-10	9.36	0.193
7404.1	1350.6	16.4	-10	9.61	0.214
7405.8	1350.3	18.9	-10	9.86	0.235
7404.7	1350.5	0.2	0	8.69	0.145
7406.5	1350.2	6.1	0	9.01	0.172
7407.9	1349.9	10.2	0	9.25	0.193
7409.4	1349.6	13.6	0	9.5	0.214
7411.1	1349.3	16	0	9.74	0.235
7410.8	1349.4	0.2	10	8.74	0.157
7411.8	1349.2	3.2	10	8.91	0.172
7413.3	1348.9	7.2	10	9.15	0.193
7414.9	1348.6	10.5	10	9.4	0.214
7416.6	1348.3	13	10	9.65	0.235
7417.2	1348.2	0.3	20	8.81	0.171
7418.8	1347.9	4.1	20	9.06	0.193
7420.4	1347.6	7.3	20	9.31	0.214
7422.1	1347.3	9.8	20	9.55	0.235
7424	1347	11.5	20	9.8	0.256
7423.8	1347	0.2	30	8.9	0.187
7426	1346.6	4.2	30	9.22	0.214
7427.7	1346.3	6.7	30	9.46	0.235
7429.6	1346	8.4	30	9.71	0.256
7431.1	1345.7	0.2	40	9.05	0.207
7433.4	1345.3	3.5	40	9.38	0.235
7435.4	1344.9	5.3	40	9.62	0.256
7438.9	1344.3	0.2	50	9.24	0.232
7441.1	1343.9	2.2	50	9.52	0.256

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

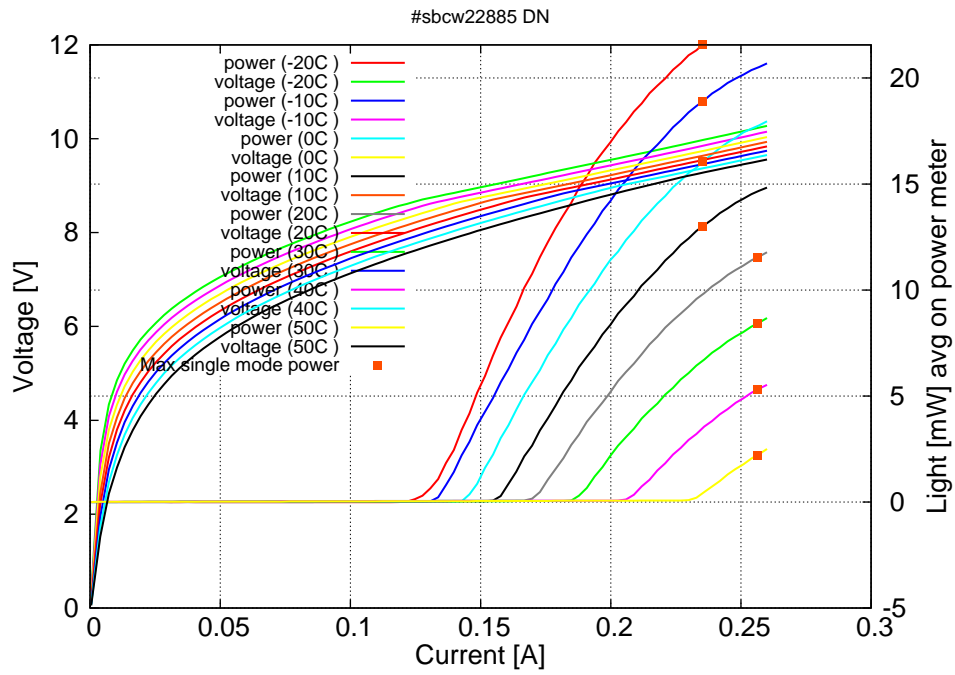


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.14A$  /  $V_{th}=8.9V$  (2-wires measurements). Maximum operation current: 0.235A between -20C and 10C, 0.26A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

