

**Datasheet for #sbcw22887 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 #sbcw22887 DN (please note that AlN submount numbering is A0N5U)

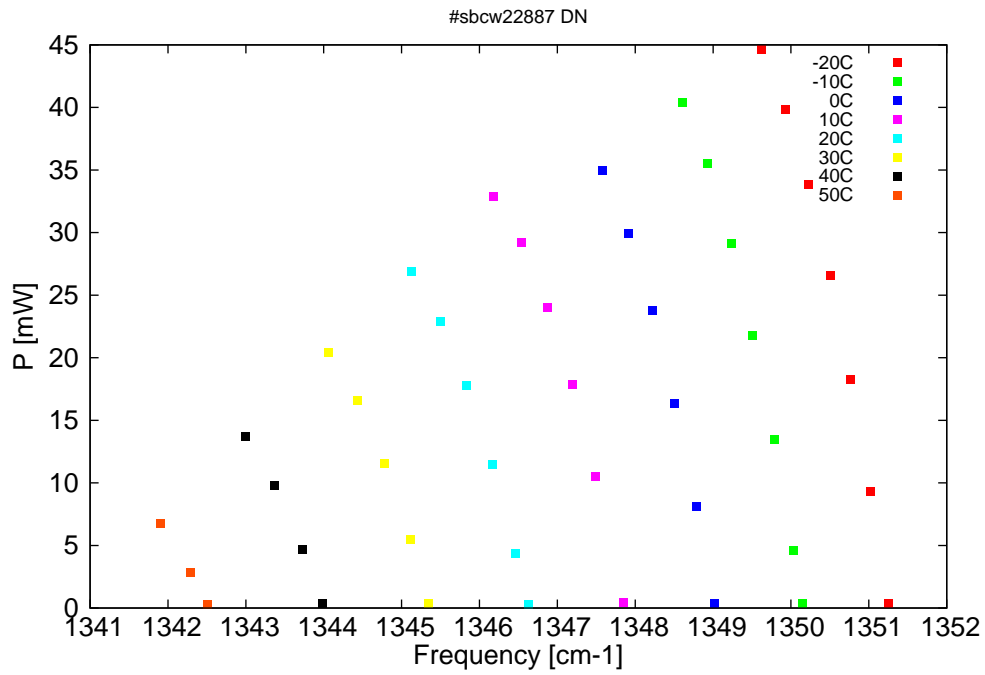


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

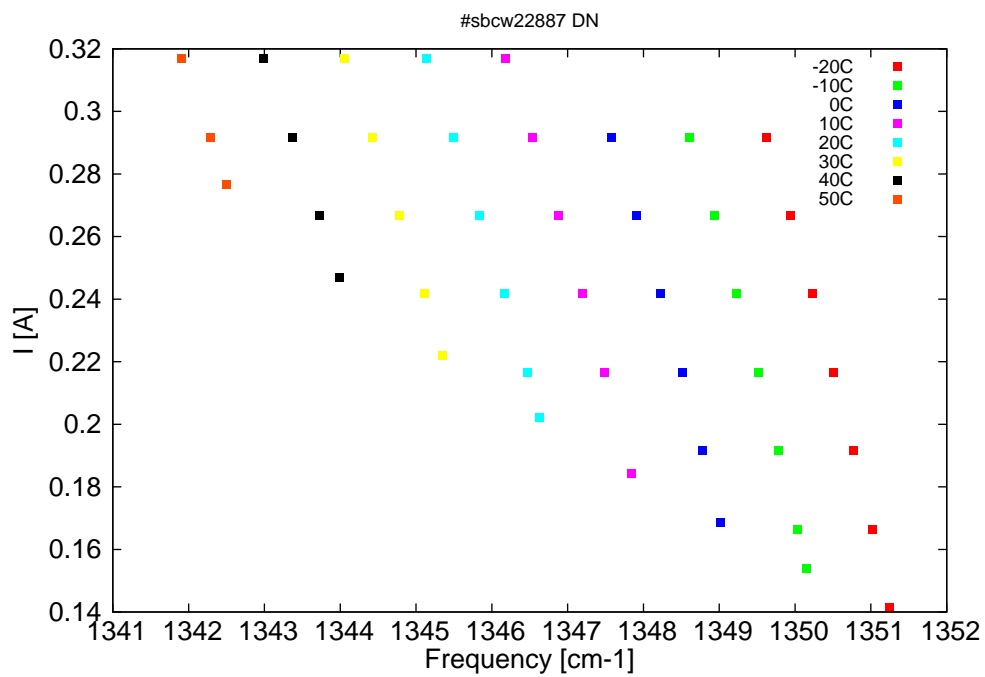


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7400.6	1351.2	0.4	-20	8.39	0.141
7401.8	1351	9.3	-20	8.62	0.167
7403.2	1350.8	18.2	-20	8.84	0.192
7404.6	1350.5	26.6	-20	9.05	0.217
7406.2	1350.2	33.9	-20	9.27	0.242
7407.8	1349.9	39.9	-20	9.48	0.267
7409.5	1349.6	44.6	-20	9.7	0.292
7406.6	1350.2	0.4	-10	8.4	0.154
7407.2	1350	4.6	-10	8.51	0.167
7408.6	1349.8	13.4	-10	8.74	0.192
7410.1	1349.5	21.8	-10	8.95	0.217
7411.6	1349.2	29.2	-10	9.16	0.242
7413.3	1348.9	35.5	-10	9.39	0.267
7415.1	1348.6	40.4	-10	9.6	0.292
7412.8	1349	0.4	0	8.44	0.169
7414.1	1348.8	8.1	0	8.65	0.192
7415.6	1348.5	16.3	0	8.87	0.217
7417.2	1348.2	23.7	0	9.08	0.242
7418.9	1347.9	29.9	0	9.3	0.267
7420.7	1347.6	35	0	9.52	0.292
7419.2	1347.8	0.4	10	8.5	0.184
7421.2	1347.5	10.5	10	8.79	0.217
7422.8	1347.2	17.8	10	9.01	0.242
7424.6	1346.9	24	10	9.22	0.267
7426.4	1346.5	29.2	10	9.44	0.292
7428.4	1346.2	32.9	10	9.67	0.317
7425.9	1346.6	0.3	20	8.59	0.202
7426.8	1346.5	4.4	20	8.72	0.217
7428.5	1346.2	11.5	20	8.93	0.242
7430.3	1345.8	17.8	20	9.15	0.267
7432.2	1345.5	22.9	20	9.37	0.292
7434.2	1345.1	26.9	20	9.6	0.317
7433	1345.3	0.4	30	8.69	0.222
7434.3	1345.1	5.4	30	8.86	0.242
7436.1	1344.8	11.5	30	9.08	0.267
7438.1	1344.4	16.6	30	9.31	0.292
7440.2	1344.1	20.5	30	9.53	0.317
7440.6	1344	0.3	40	8.84	0.247
7442	1343.7	4.7	40	9.01	0.267
7444	1343.4	9.8	40	9.23	0.292
7446.1	1343	13.7	40	9.46	0.317
7448.8	1342.5	0.3	50	9.03	0.277
7449.9	1342.3	2.8	50	9.16	0.292
7452.1	1341.9	6.8	50	9.38	0.317

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

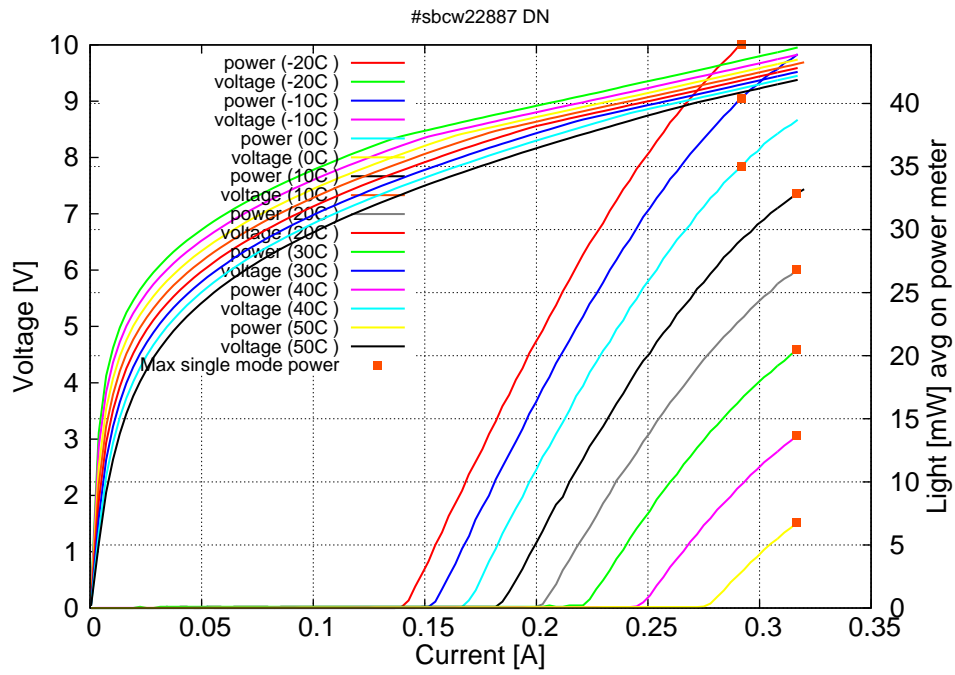


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.14A$  /  $V_{th}=8.4V$  (2-wires measurements). Maximum operation current: 0.30A between -20C and 0C, 0.32A between 10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

