

Datasheet for #sbcw25871 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

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 #sbcw25871 DN (please note that AlN submount numbering is A0W1U)

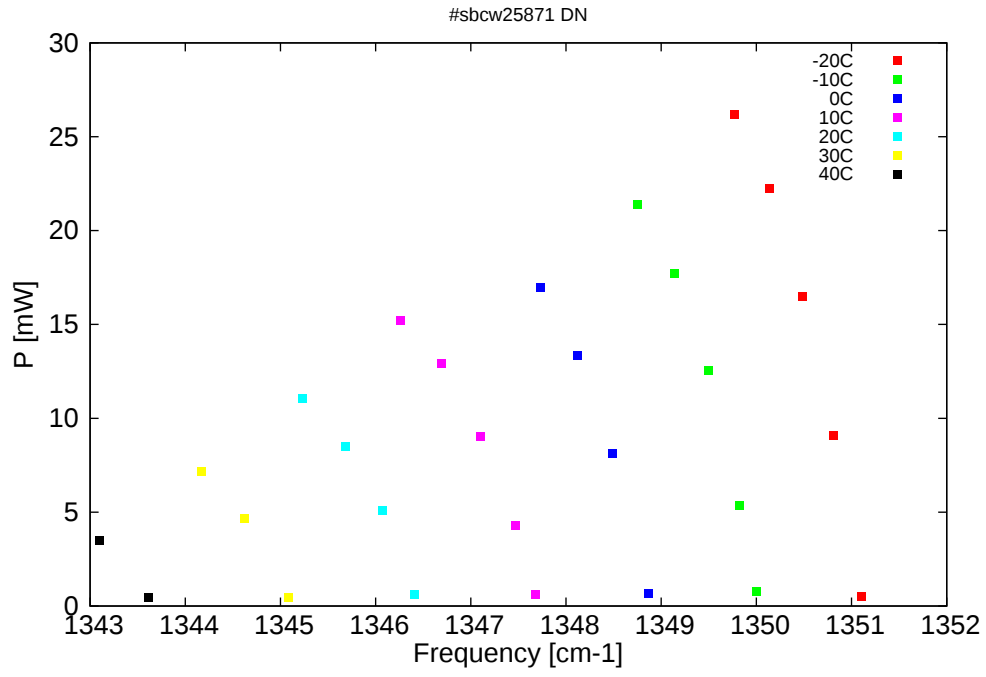


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

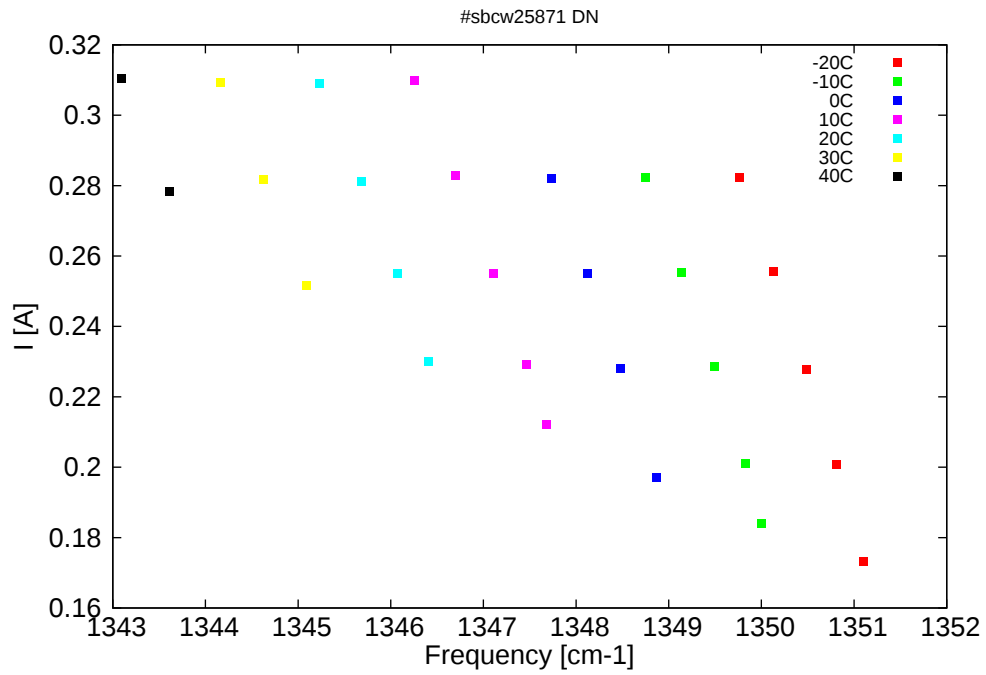


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
7401.3	1351.1	0.5	-20	9	0.173
7403	1350.8	9.1	-20	9.27	0.201
7404.7	1350.5	16.5	-20	9.54	0.228
7406.7	1350.1	22.3	-20	9.82	0.256
7408.7	1349.8	26.2	-20	10.09	0.282
7407.4	1350	0.8	-10	9	0.184
7408.4	1349.8	5.4	-10	9.16	0.201
7410.2	1349.5	12.5	-10	9.44	0.229
7412.1	1349.1	17.7	-10	9.7	0.255
7414.3	1348.8	21.4	-10	9.98	0.282
7413.6	1348.9	0.6	0	9.03	0.197
7415.7	1348.5	8.1	0	9.34	0.228
7417.7	1348.1	13.3	0	9.61	0.255
7419.9	1347.7	17	0	9.88	0.282
7420.2	1347.7	0.6	10	9.08	0.212
7421.3	1347.5	4.3	10	9.25	0.229
7423.3	1347.1	9	10	9.51	0.255
7425.6	1346.7	12.9	10	9.78	0.283
7428	1346.3	15.2	10	10.06	0.31
7427.2	1346.4	0.6	20	9.17	0.23
7429	1346.1	5.1	20	9.42	0.255
7431.2	1345.7	8.5	20	9.68	0.281
7433.7	1345.2	11.1	20	9.96	0.309
7434.4	1345.1	0.4	30	9.3	0.252
7437	1344.6	4.7	30	9.6	0.282
7439.6	1344.2	7.2	30	9.87	0.309
7442.6	1343.6	0.5	40	9.47	0.278
7445.5	1343.1	3.5	40	9.78	0.31

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

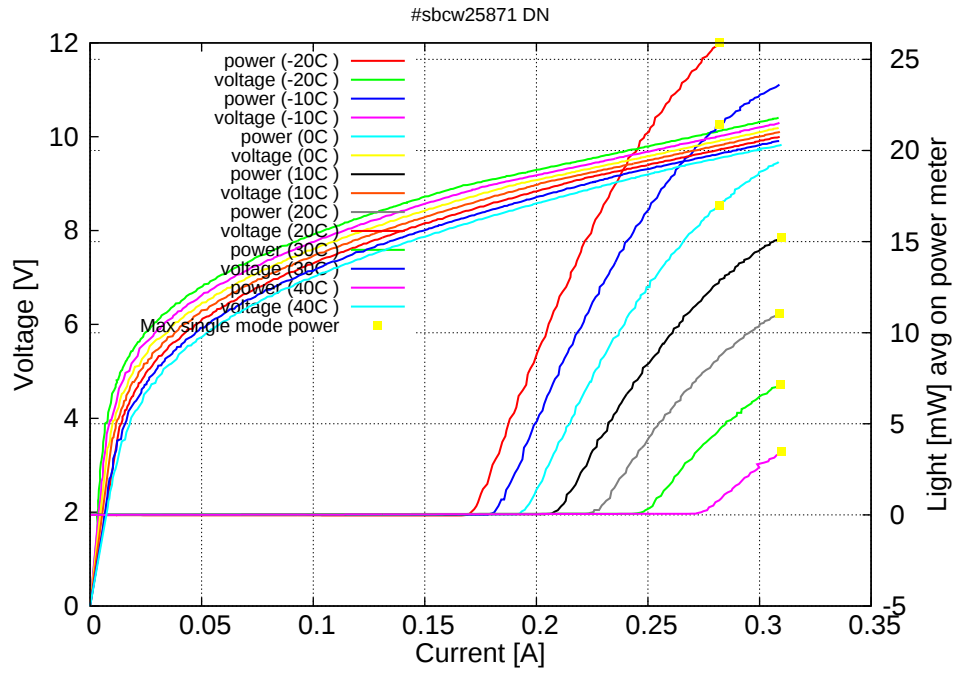


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=9.0V$ (2-wires measurements). Maximum operation current: 0.28A between -20C and 0C, 0.31A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

