

**Datasheet for #sbcw25034 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 #sbcw25034 DN (please note that AlN submount numbering is A1213)

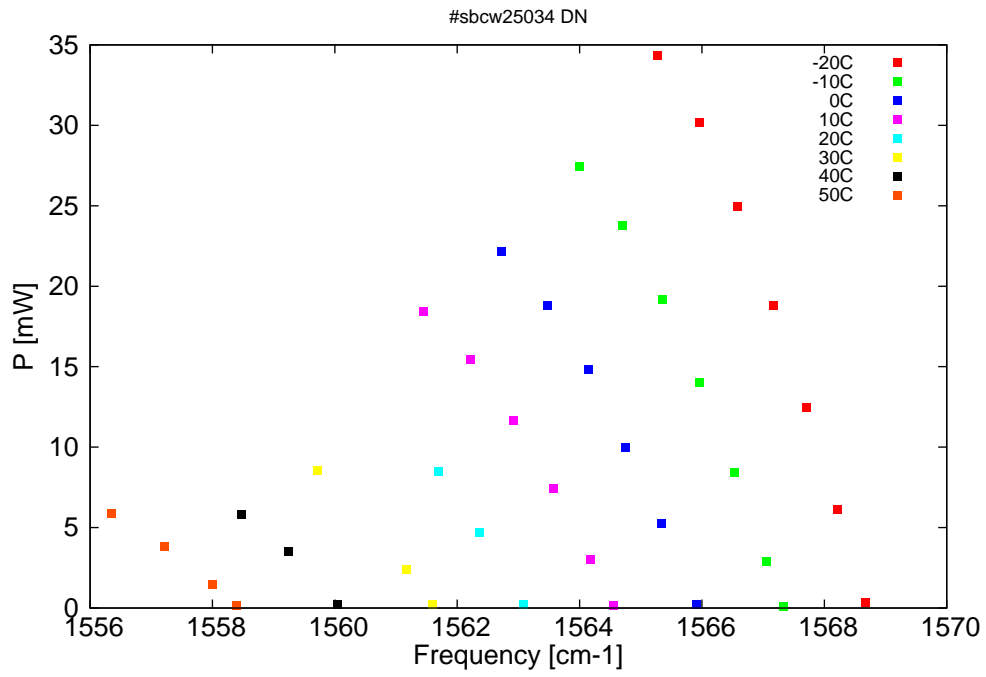


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

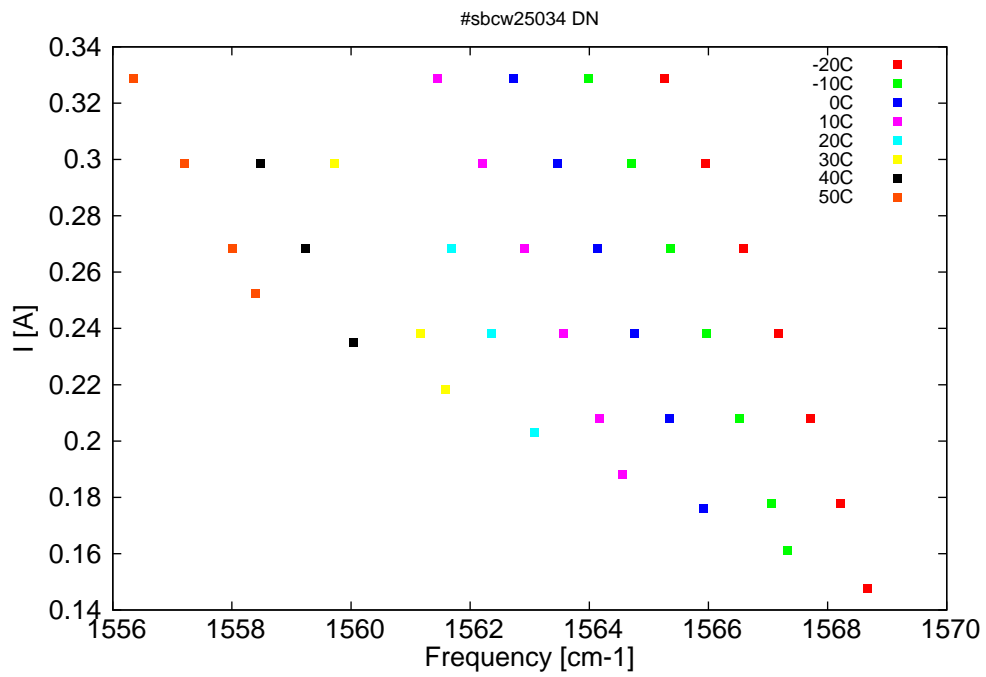


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
6374.8	1568.7	0.3	-20	8.63	0.148
6376.7	1568.2	6.1	-20	8.94	0.178
6378.7	1567.7	12.5	-20	9.24	0.208
6380.9	1567.2	18.8	-20	9.53	0.238
6383.3	1566.6	24.9	-20	9.82	0.268
6385.9	1566	30.2	-20	10.12	0.299
6388.7	1565.3	34.3	-20	10.42	0.329
6380.3	1567.3	0.1	-10	8.69	0.161
6381.4	1567.1	2.9	-10	8.86	0.178
6383.6	1566.5	8.4	-10	9.16	0.208
6385.8	1566	14	-10	9.47	0.238
6388.3	1565.4	19.2	-10	9.77	0.268
6391	1564.7	23.8	-10	10.08	0.299
6393.9	1564	27.4	-10	10.39	0.329
6386.1	1565.9	0.2	0	8.76	0.176
6388.4	1565.3	5.3	0	9.09	0.208
6390.8	1564.8	10	0	9.41	0.238
6393.3	1564.1	14.8	0	9.7	0.268
6396	1563.5	18.8	0	10.02	0.299
6399.1	1562.7	22.1	0	10.34	0.329
6391.6	1564.6	0.2	10	8.85	0.188
6393.2	1564.2	3	10	9.07	0.208
6395.6	1563.6	7.5	10	9.39	0.238
6398.3	1562.9	11.7	10	9.71	0.268
6401.2	1562.2	15.4	10	10.03	0.299
6404.3	1561.5	18.4	10	10.34	0.329
6397.6	1563.1	0.2	20	8.95	0.203
6400.6	1562.4	4.7	20	9.33	0.238
6403.3	1561.7	8.5	20	9.65	0.268
6403.7	1561.6	0.2	30	9.04	0.218
6405.5	1561.2	2.4	30	9.26	0.238
6411.4	1559.7	8.6	30	9.9	0.299
6410.1	1560	0.2	40	9.09	0.235
6413.4	1559.2	3.5	40	9.46	0.268
6416.5	1558.5	5.8	40	9.79	0.299
6416.9	1558.4	0.2	50	9.27	0.252
6418.5	1558	1.5	50	9.43	0.268
6421.7	1557.2	3.9	50	9.76	0.299
6425.3	1556.4	5.9	50	10.09	0.329

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

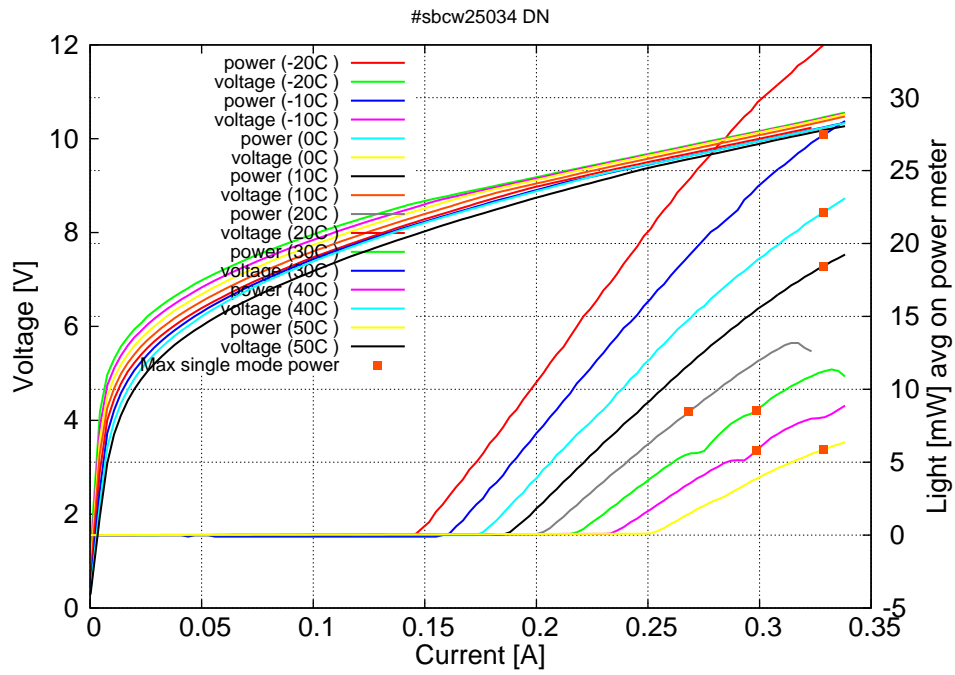


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.15A$  /  $V_{th}=8.6V$  (2-wires measurements). Maximum operation current: 0.340A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

