

Datasheet for #sbcw23711 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 #sbcw23711 DN (please note that AlN submount numbering is A12W8)

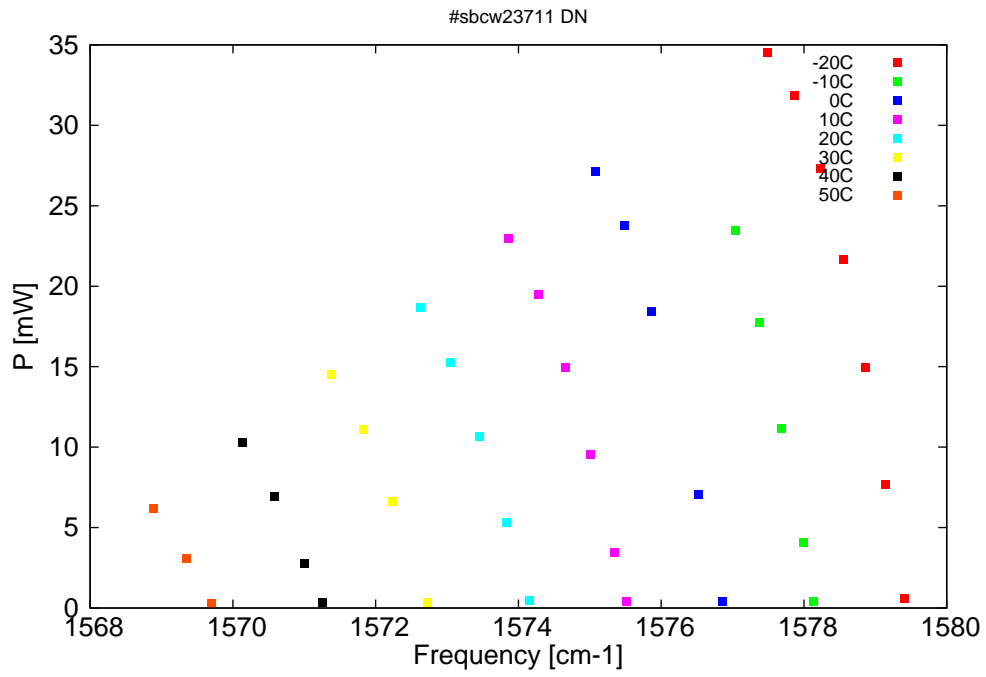


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

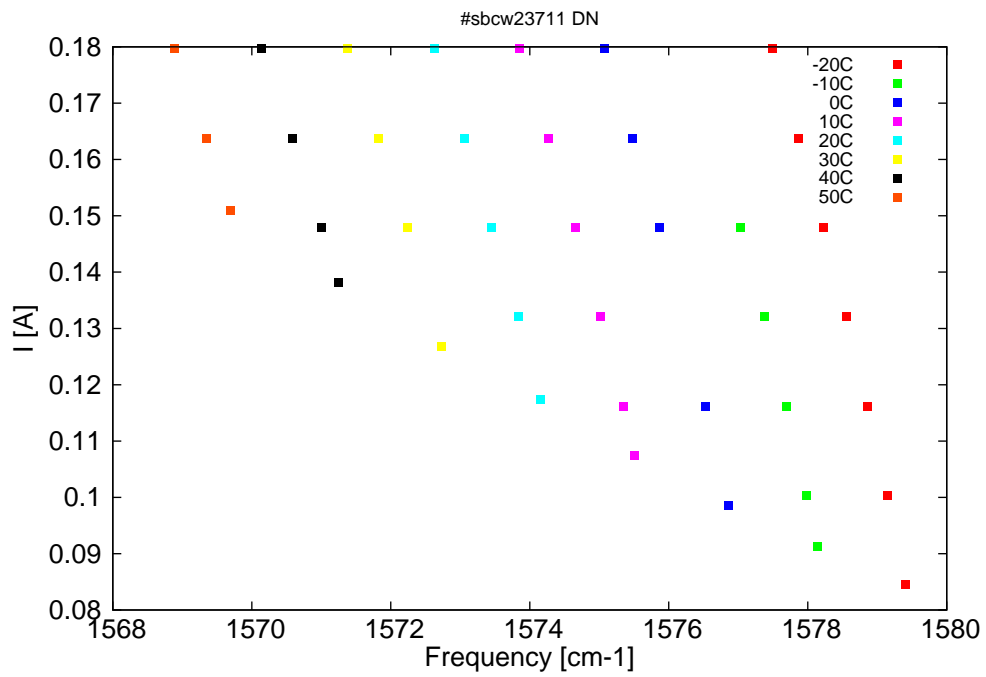


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6331.5	1579.4	0.6	-20	9.09	0.085
6332.6	1579.1	7.7	-20	9.35	0.1
6333.7	1578.9	14.9	-20	9.6	0.116
6334.9	1578.6	21.7	-20	9.84	0.132
6336.2	1578.2	27.3	-20	10.08	0.148
6337.7	1577.9	31.9	-20	10.32	0.164
6339.2	1577.5	34.5	-20	10.58	0.18
6336.6	1578.1	0.4	-10	9.13	0.091
6337.2	1578	4.1	-10	9.28	0.1
6338.4	1577.7	11.2	-10	9.53	0.116
6339.6	1577.4	17.8	-10	9.77	0.132
6341	1577	23.5	-10	10.02	0.148
6341.7	1576.9	0.4	0	9.19	0.099
6343.1	1576.5	7	0	9.47	0.116
6345.7	1575.9	18.4	0	9.96	0.148
6347.3	1575.5	23.8	0	10.21	0.164
6348.9	1575.1	27.1	0	10.47	0.18
6347.1	1575.5	0.4	10	9.27	0.107
6347.8	1575.4	3.4	10	9.41	0.116
6349.1	1575	9.5	10	9.66	0.132
6350.6	1574.7	14.9	10	9.91	0.148
6352.1	1574.3	19.5	10	10.15	0.164
6353.8	1573.9	23	10	10.42	0.18
6352.6	1574.1	0.5	20	9.37	0.117
6353.9	1573.8	5.3	20	9.6	0.132
6355.4	1573.5	10.7	20	9.85	0.148
6357.1	1573.1	15.3	20	10.1	0.164
6358.8	1572.6	18.7	20	10.36	0.18
6358.4	1572.7	0.3	30	9.46	0.127
6360.4	1572.2	6.6	30	9.79	0.148
6362	1571.8	11.1	30	10.05	0.164
6363.8	1571.4	14.5	30	10.31	0.18
6364.4	1571.3	0.4	40	9.58	0.138
6365.3	1571	2.8	40	9.74	0.148
6367	1570.6	6.9	40	9.99	0.164
6368.9	1570.1	10.3	40	10.25	0.18
6370.7	1569.7	0.3	50	9.72	0.151
6372.1	1569.4	3.1	50	9.93	0.164
6373.9	1568.9	6.2	50	10.19	0.18

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

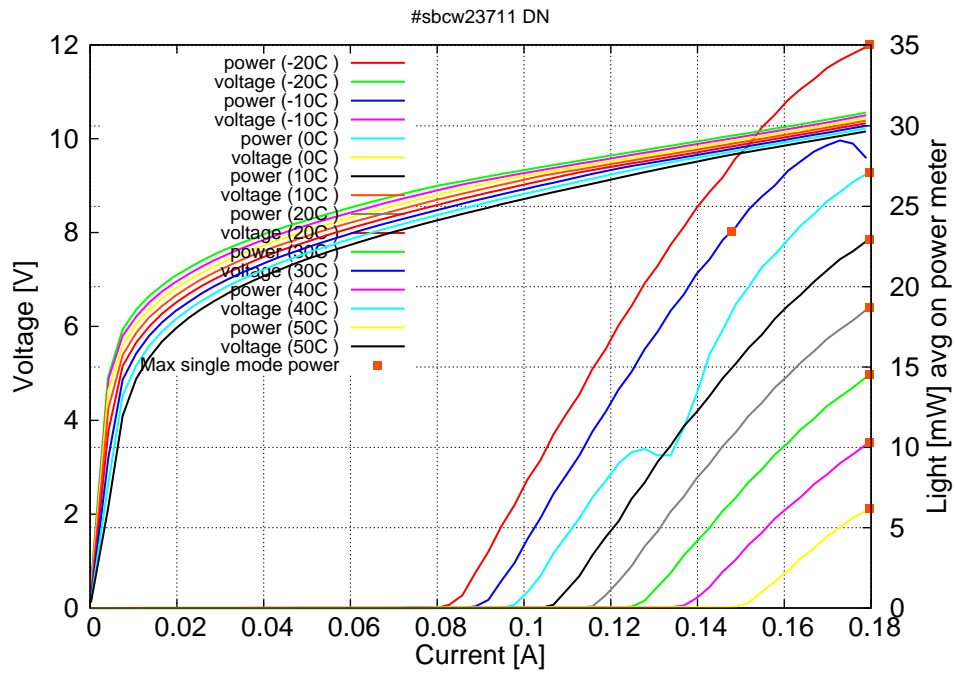


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=9.1V$ (2-wires measurements). Maximum operation current: 0.18A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

