

Datasheet for #sbcw14836 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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 #sbcw14836 DN

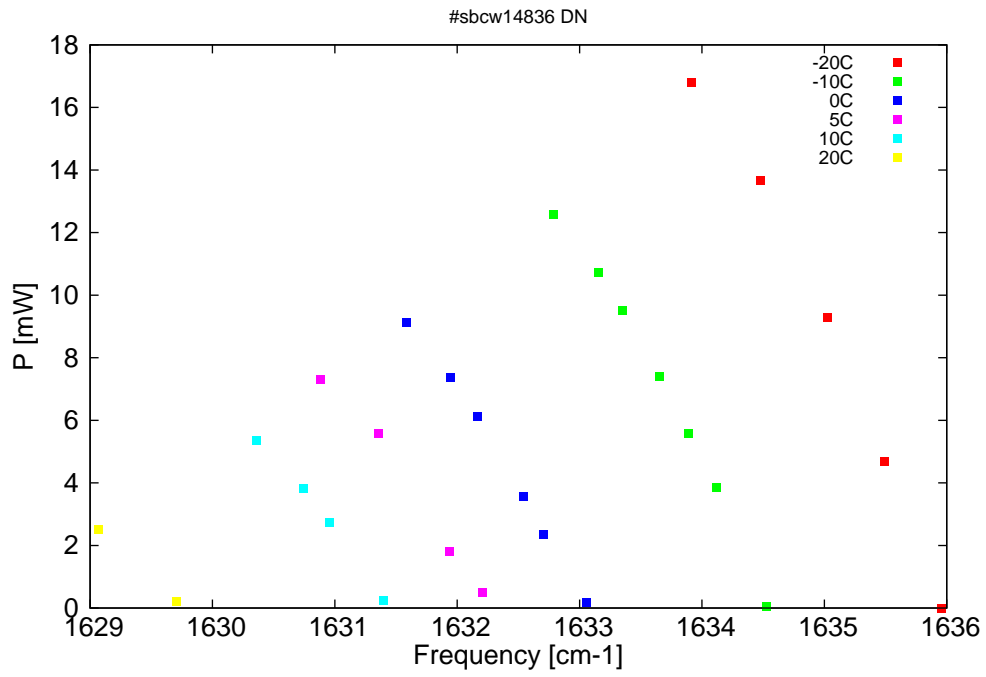


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

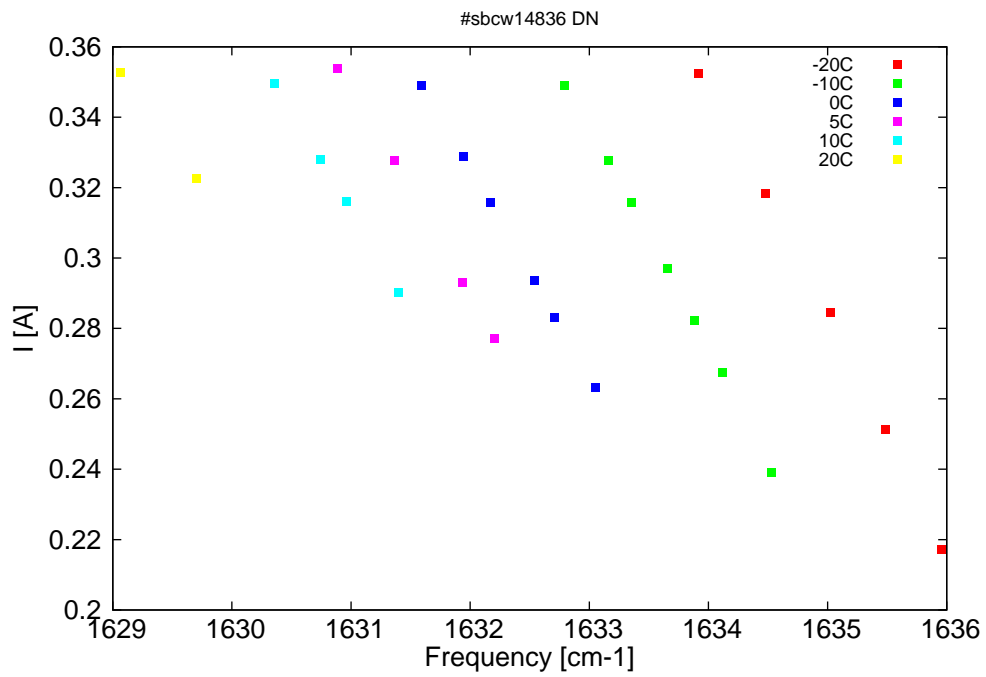


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6112.6	1636	0	-20	9.67	0.217
6114.4	1635.5	4.7	-20	9.93	0.251
6116.1	1635	9.3	-20	10.19	0.285
6118.2	1634.5	13.7	-20	10.45	0.318
6120.3	1633.9	16.8	-20	10.72	0.353
6118	1634.5	0.1	-10	9.76	0.239
6119.5	1634.1	3.9	-10	9.99	0.268
6120.4	1633.9	5.6	-10	10.09	0.282
6121.2	1633.7	7.4	-10	10.22	0.297
6122.4	1633.4	9.5	-10	10.35	0.316
6123.1	1633.2	10.7	-10	10.46	0.328
6124.5	1632.8	12.6	-10	10.61	0.349
6123.5	1633.1	0.2	0	9.87	0.263
6124.8	1632.7	2.4	0	10.02	0.283
6125.4	1632.5	3.6	0	10.11	0.294
6126.8	1632.2	6.1	0	10.28	0.316
6127.7	1631.9	7.4	0	10.39	0.329
6129	1631.6	9.1	0	10.54	0.349
6126.7	1632.2	0.5	5	9.95	0.277
6127.7	1631.9	1.8	5	10.08	0.293
6129.9	1631.4	5.6	5	10.34	0.328
6131.6	1630.9	7.3	5	10.55	0.354
6129.7	1631.4	0.2	10	10.02	0.29
6131.4	1631	2.7	10	10.21	0.316
6132.2	1630.7	3.8	10	10.31	0.328
6133.6	1630.4	5.4	10	10.47	0.35
6136.1	1629.7	0.2	20	10.19	0.323
6138.5	1629.1	2.5	20	10.43	0.353

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

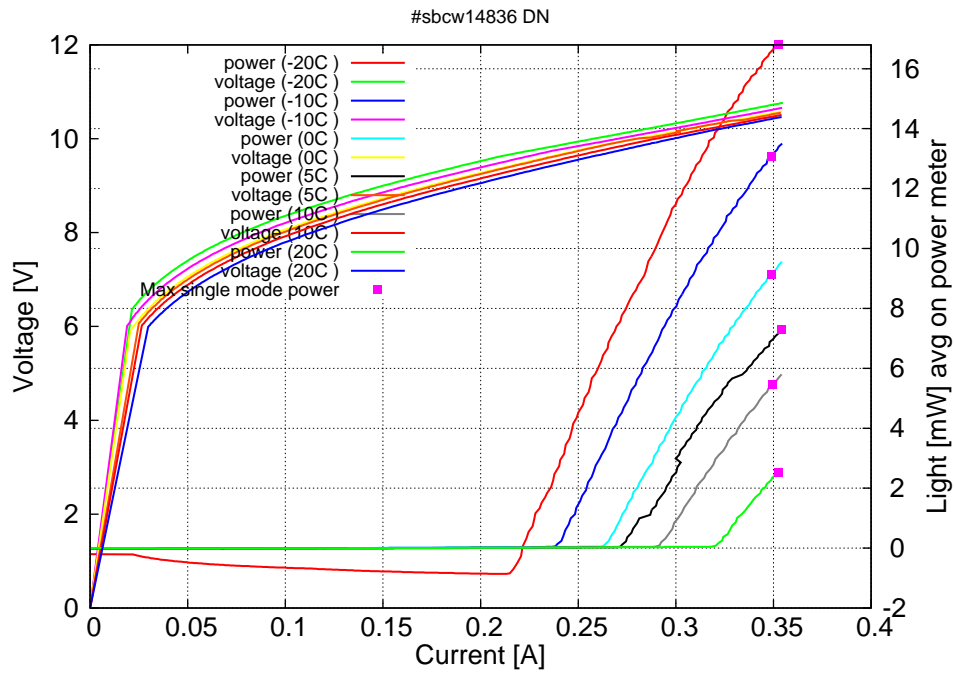


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.21A$ / $V_{th}=9.6V$ (2-wires measurements). Maximum operation current: 0.355A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

