

Datasheet for #sbcw16575 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 #sbcw16575 DN

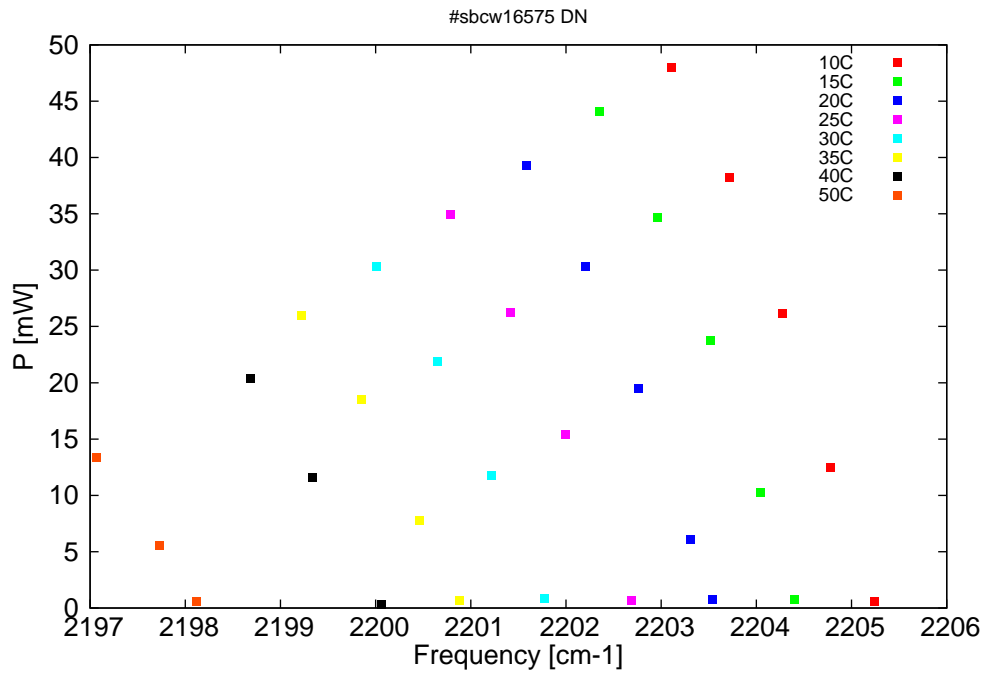


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

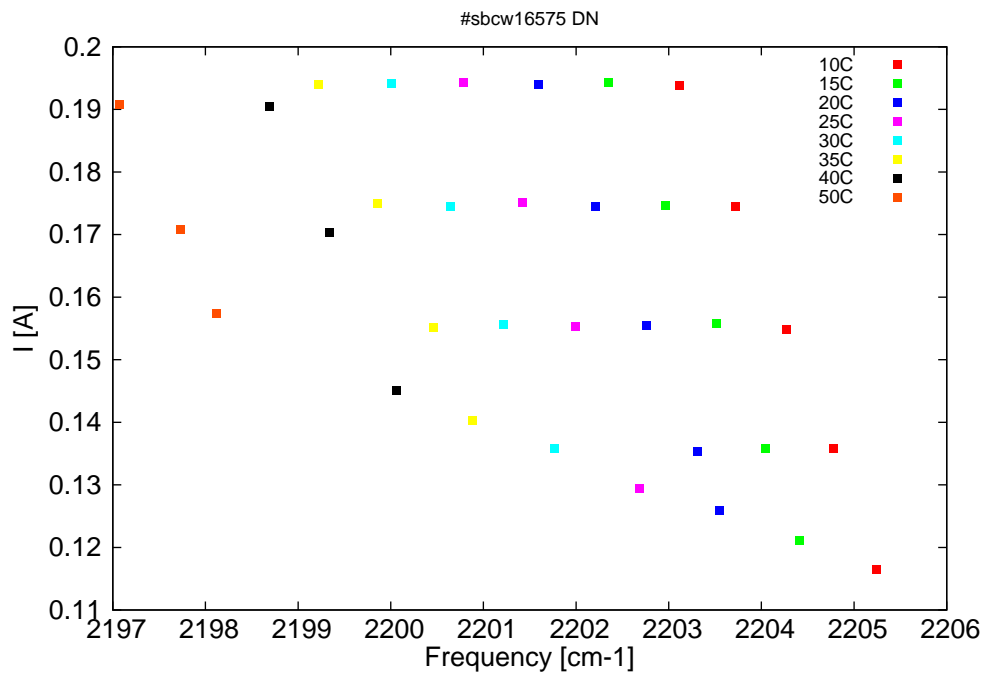


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4534.6	2205.2	0.5	10	8.83	0.116
4535.6	2204.8	12.4	10	9.04	0.136
4536.6	2204.3	26.1	10	9.26	0.155
4537.8	2203.7	38.2	10	9.49	0.174
4539	2203.1	48	10	9.73	0.194
4536.4	2204.4	0.8	15	8.87	0.121
4537.1	2204	10.2	15	9.03	0.136
4538.2	2203.5	23.8	15	9.26	0.156
4539.3	2203	34.7	15	9.48	0.175
4540.6	2202.3	44.1	15	9.72	0.194
4538.1	2203.5	0.8	20	8.91	0.126
4538.6	2203.3	6	20	9.01	0.135
4539.8	2202.8	19.5	20	9.24	0.156
4540.9	2202.2	30.3	20	9.46	0.174
4542.2	2201.6	39.3	20	9.7	0.194
4539.9	2202.7	0.7	25	8.94	0.129
4541.3	2202	15.4	25	9.23	0.155
4542.5	2201.4	26.2	25	9.46	0.175
4543.8	2200.8	35	25	9.7	0.194
4541.8	2201.8	0.8	30	9	0.136
4542.9	2201.2	11.8	30	9.22	0.156
4544.1	2200.6	21.9	30	9.44	0.175
4545.4	2200	30.3	30	9.68	0.194
4543.6	2200.9	0.7	35	9.04	0.14
4544.5	2200.5	7.8	35	9.2	0.155
4545.8	2199.9	18.5	35	9.43	0.175
4547.1	2199.2	26	35	9.66	0.194
4545.3	2200.1	0.3	40	9.08	0.145
4546.8	2199.3	11.6	40	9.35	0.17
4548.2	2198.7	20.4	40	9.59	0.19
4549.3	2198.1	0.6	50	9.21	0.157
4550.2	2197.7	5.6	50	9.34	0.171
4551.5	2197.1	13.4	50	9.58	0.191

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

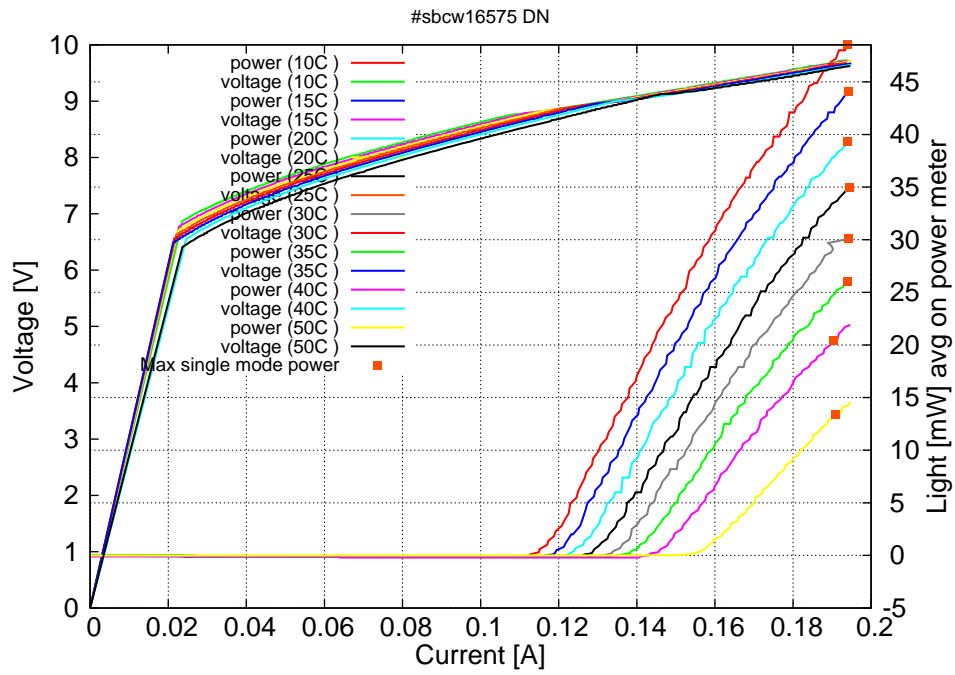


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at 10C: $I_{th}=0.11A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.195A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

