

Datasheet for #sbcw19887 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 #sbcw19887 DN

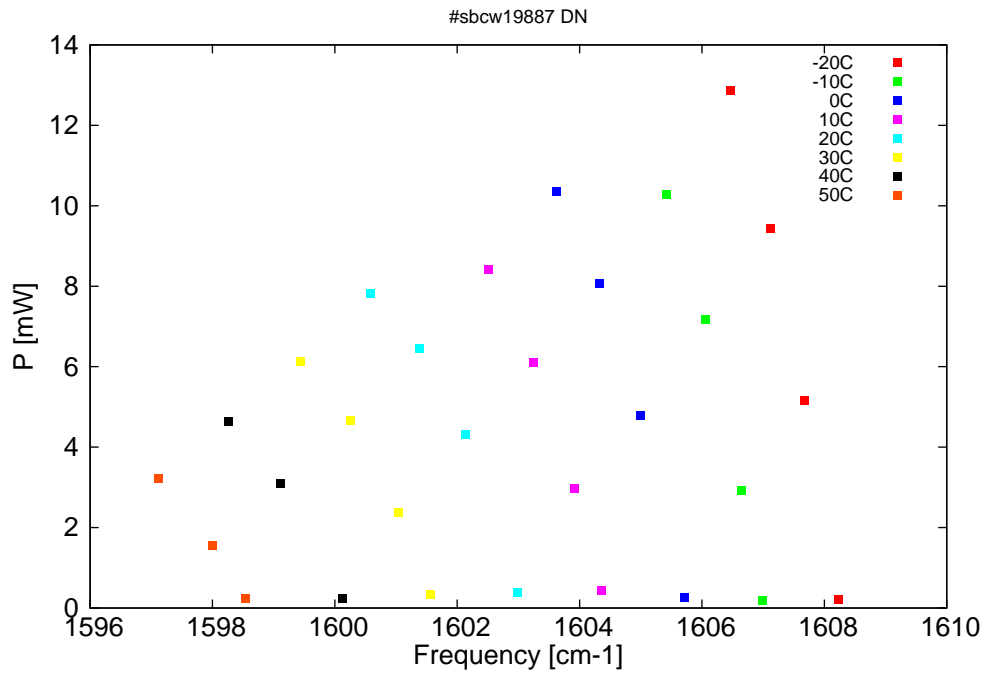


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

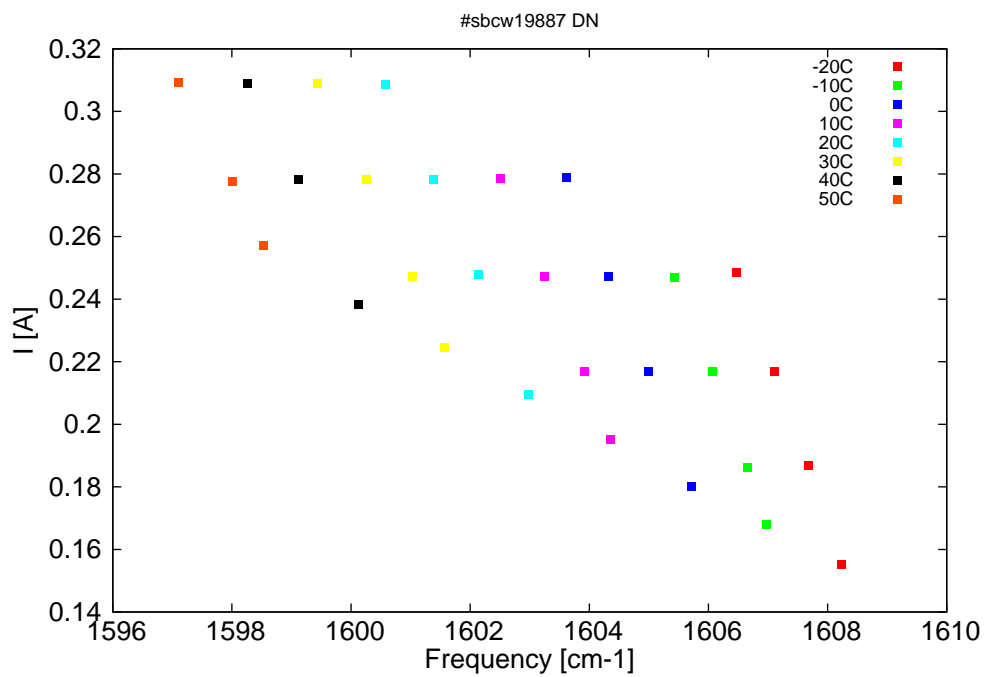


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6218	1608.2	0.2	-20	8.7	0.155
6220.2	1607.7	5.2	-20	9.02	0.187
6222.3	1607.1	9.4	-20	9.31	0.217
6224.8	1606.5	12.9	-20	9.62	0.249
6222.9	1607	0.2	-10	8.75	0.168
6224.1	1606.6	2.9	-10	8.94	0.186
6226.4	1606.1	7.2	-10	9.25	0.217
6228.9	1605.4	10.3	-10	9.55	0.247
6227.8	1605.7	0.3	0	8.8	0.18
6230.5	1605	4.8	0	9.18	0.217
6233.1	1604.3	8.1	0	9.49	0.247
6235.9	1603.6	10.4	0	9.82	0.279
6233	1604.4	0.4	10	8.89	0.195
6234.7	1603.9	3	10	9.11	0.217
6237.3	1603.3	6.1	10	9.43	0.247
6240.2	1602.5	8.4	10	9.76	0.278
6238.4	1603	0.4	20	8.97	0.209
6241.7	1602.1	4.3	20	9.38	0.248
6244.6	1601.4	6.5	20	9.7	0.278
6247.7	1600.6	7.8	20	10.04	0.309
6243.9	1601.6	0.3	30	9.06	0.224
6245.9	1601	2.4	30	9.31	0.247
6249	1600.3	4.7	30	9.65	0.278
6252.2	1599.4	6.1	30	9.98	0.309
6249.5	1600.1	0.2	40	9.15	0.238
6253.5	1599.1	3.1	40	9.59	0.278
6256.8	1598.3	4.6	40	9.93	0.309
6255.7	1598.5	0.2	50	9.29	0.257
6257.8	1598	1.6	50	9.52	0.277
6261.3	1597.1	3.2	50	9.87	0.309

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

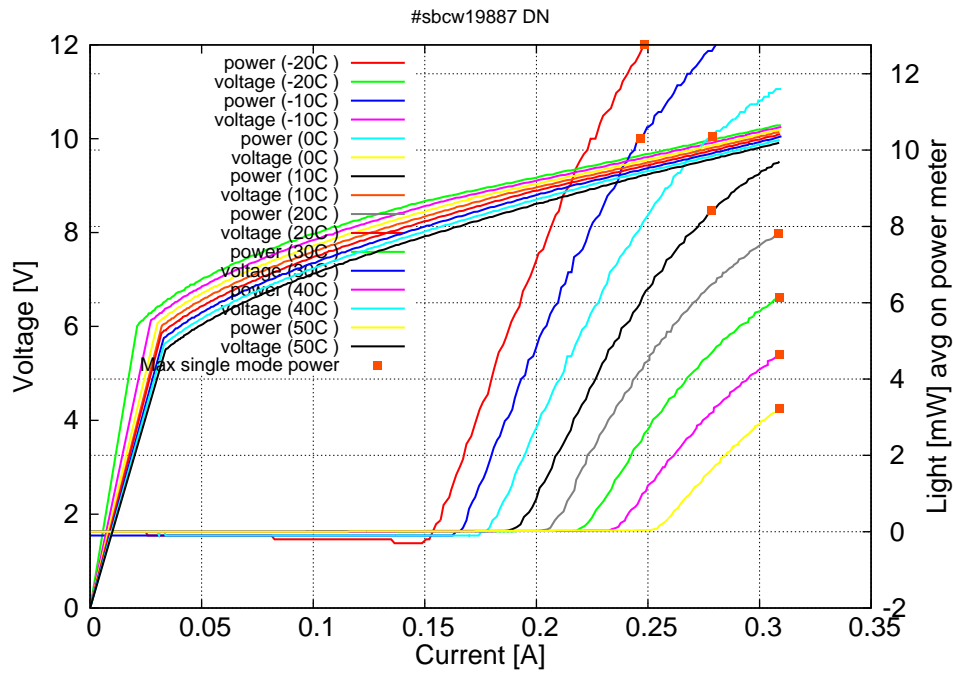


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=8.7V$ (2-wires measurements). Maximum operation current: 0.25A between -20C and -10C, 0.28A between 0C and 10C, 0.31A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

