

**Datasheet for #sbcw23687 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.

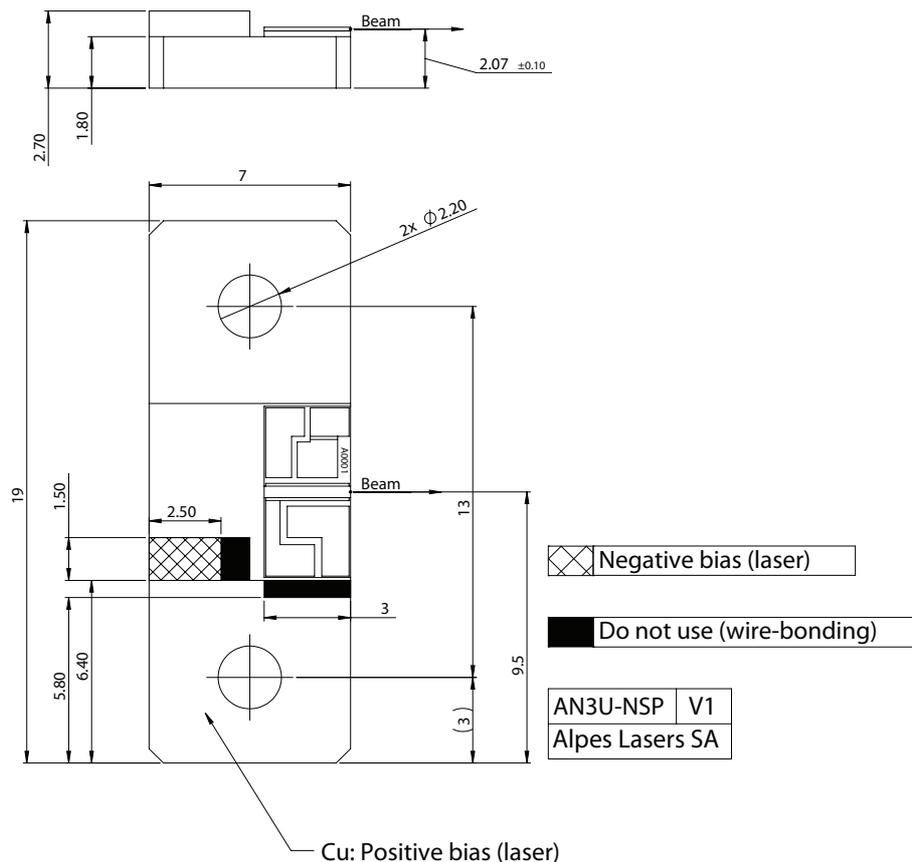


Figure 1: Mechanical and electrical interface for #sbcw23687 DN

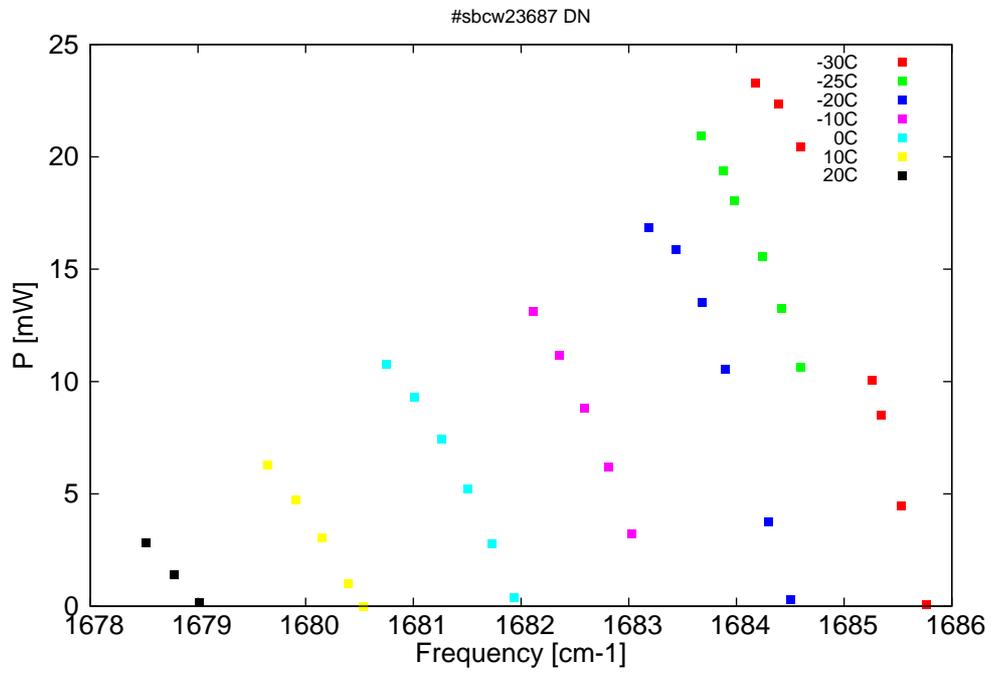


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

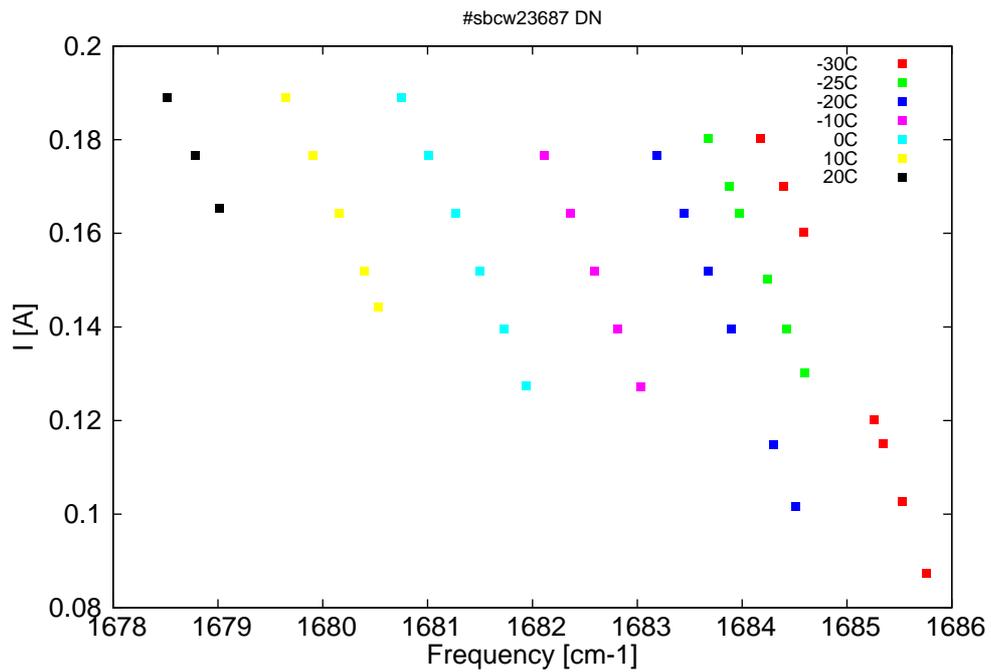


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5932	1685.8	0.1	-30	10.2	0.087
5932.8	1685.5	4.4	-30	10.51	0.103
5933.5	1685.3	8.5	-30	10.77	0.115
5933.8	1685.3	10	-30	10.88	0.12
5936.2	1684.6	20.5	-30	11.67	0.16
5936.8	1684.4	22.3	-30	11.87	0.17
5937.6	1684.2	23.3	-30	12.06	0.18
5936.1	1684.6	10.6	-25	11.03	0.13
5936.8	1684.4	13.3	-25	11.21	0.14
5937.4	1684.2	15.6	-25	11.42	0.15
5938.3	1684	18.1	-25	11.69	0.164
5938.7	1683.9	19.4	-25	11.82	0.17
5939.4	1683.7	20.9	-25	12.01	0.18
5936.5	1684.5	0.3	-20	10.39	0.102
5937.2	1684.3	3.7	-20	10.66	0.115
5938.6	1683.9	10.5	-20	11.16	0.14
5939.4	1683.7	13.5	-20	11.4	0.152
5940.2	1683.4	15.9	-20	11.63	0.164
5941.1	1683.2	16.8	-20	11.87	0.177
5941.7	1683	3.2	-10	10.8	0.127
5942.4	1682.8	6.2	-10	11.04	0.14
5943.2	1682.6	8.8	-10	11.29	0.152
5944	1682.4	11.2	-10	11.52	0.164
5944.9	1682.1	13.1	-10	11.76	0.177
5945.5	1681.9	0.4	0	10.7	0.128
5946.3	1681.7	2.8	0	10.94	0.14
5947.1	1681.5	5.2	0	11.18	0.152
5947.9	1681.3	7.4	0	11.41	0.164
5948.8	1681	9.3	0	11.65	0.177
5949.7	1680.8	10.8	0	11.88	0.189
5950.5	1680.5	0	10	10.93	0.144
5951	1680.4	1	10	11.07	0.152
5951.8	1680.2	3.1	10	11.31	0.164
5952.7	1679.9	4.7	10	11.54	0.177
5953.6	1679.6	6.3	10	11.77	0.189
5955.9	1679	0.1	20	11.22	0.165
5956.7	1678.8	1.4	20	11.42	0.177
5957.6	1678.5	2.8	20	11.65	0.189

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

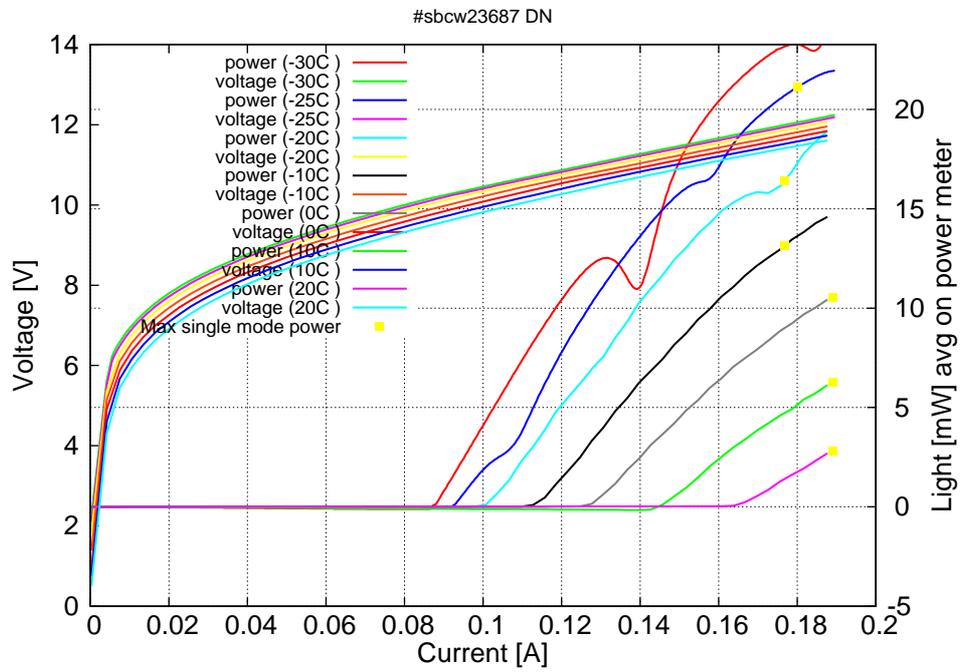


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -30C:  $I_{th}=0.09A$  /  $V_{th}=10.2V$  (2-wires measurements). Maximum operation current: 0.18A between -30C and -10C, 0.19A between 0C and 20C.

Figure 3: spectra at different temperatures for various DC currents

