

**Datasheet for #sbcw19752 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.

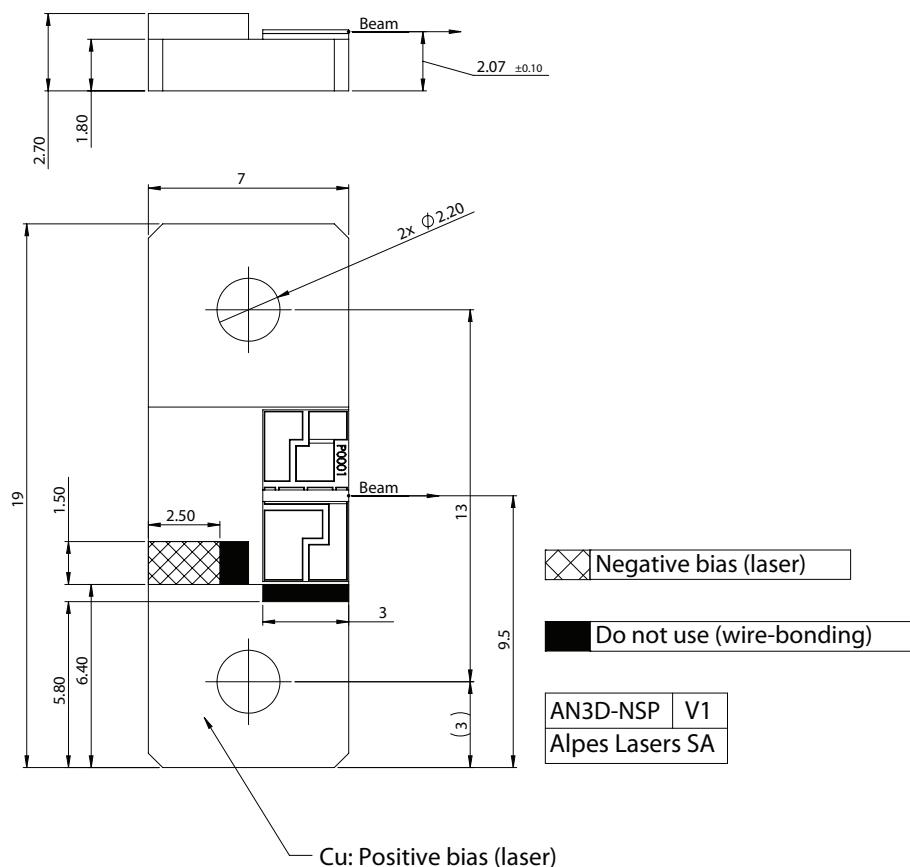


Figure 1: Mechanical and electrical interface for #sbcw19752 DN

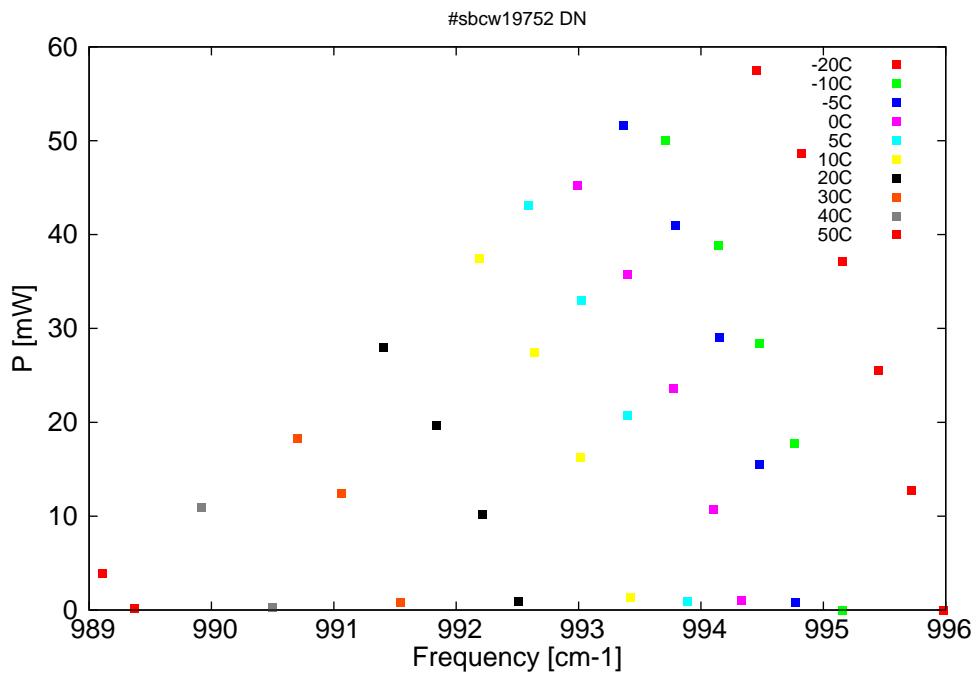


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

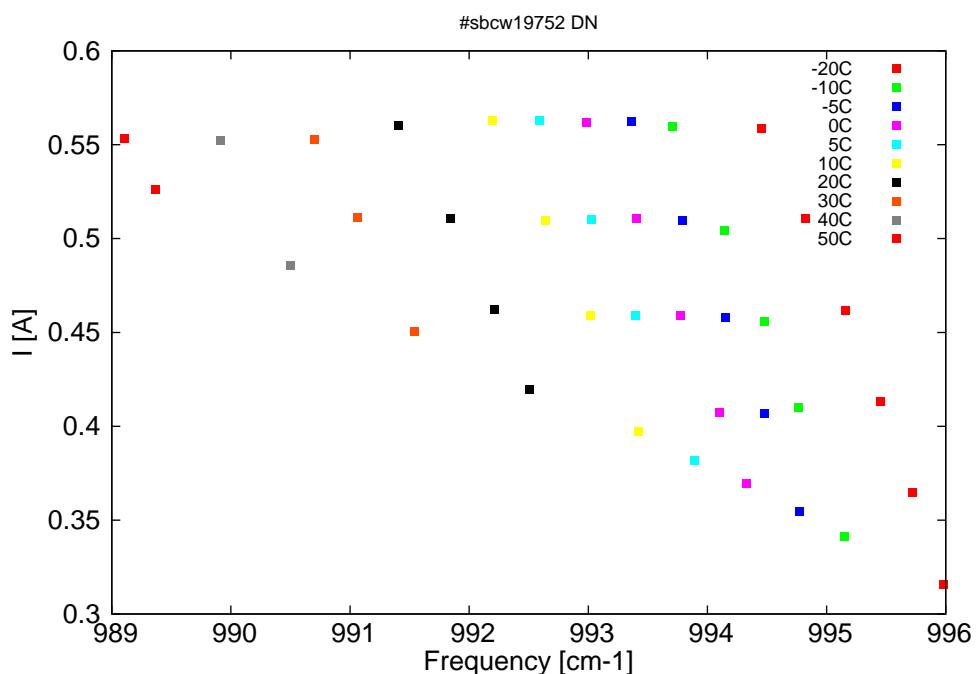


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm $^{-1}$ ]	P[mW]	Temp[°C]	U $_{LASER}$ [V]	I[A]
10040.4	996	0	-20	8.01	0.316
10042.9	995.7	12.8	-20	8.26	0.365
10045.7	995.5	25.5	-20	8.52	0.413
10048.7	995.2	37.1	-20	8.77	0.462
10052.1	994.8	48.6	-20	9.06	0.511
10055.7	994.5	57.4	-20	9.35	0.559
10048.7	995.2	0	-10	8.11	0.341
10052.6	994.8	17.7	-10	8.48	0.41
10055.5	994.5	28.4	-10	8.73	0.456
10058.9	994.1	38.9	-10	9.02	0.504
10063.3	993.7	50.1	-10	9.36	0.56
10052.5	994.8	0.8	-5	8.16	0.354
10055.5	994.5	15.5	-5	8.44	0.407
10058.8	994.2	29.1	-5	8.72	0.458
10062.5	993.8	41	-5	9.02	0.51
10066.8	993.4	51.6	-5	9.37	0.562
10057.1	994.3	1	0	8.23	0.37
10059.3	994.1	10.7	0	8.43	0.407
10062.6	993.8	23.6	0	8.72	0.459
10066.4	993.4	35.7	0	9.04	0.511
10070.6	993	45.2	0	9.37	0.562
10061.5	993.9	0.9	5	8.28	0.382
10066.5	993.4	20.7	5	8.72	0.459
10070.3	993	33	5	9.03	0.51
10074.7	992.6	43.1	5	9.38	0.563
10066.2	993.4	1.3	10	8.36	0.397
10070.3	993	16.2	10	8.72	0.459
10074.1	992.6	27.4	10	9.03	0.51
10078.7	992.2	37.5	10	9.39	0.563
10075.5	992.5	0.9	20	8.51	0.42
10078.5	992.2	10.2	20	8.76	0.462
10082.3	991.8	19.7	20	9.07	0.511
10086.6	991.4	27.9	20	9.4	0.56
10085.3	991.5	0.8	30	8.69	0.45
10090.2	991.1	12.5	30	9.07	0.511
10093.9	990.7	18.3	30	9.36	0.553
10095.9	990.5	0.2	40	8.91	0.486
10101.9	989.9	10.9	40	9.36	0.552
10107.5	989.4	0.2	50	9.19	0.526
10110.1	989.1	3.9	50	9.38	0.553

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

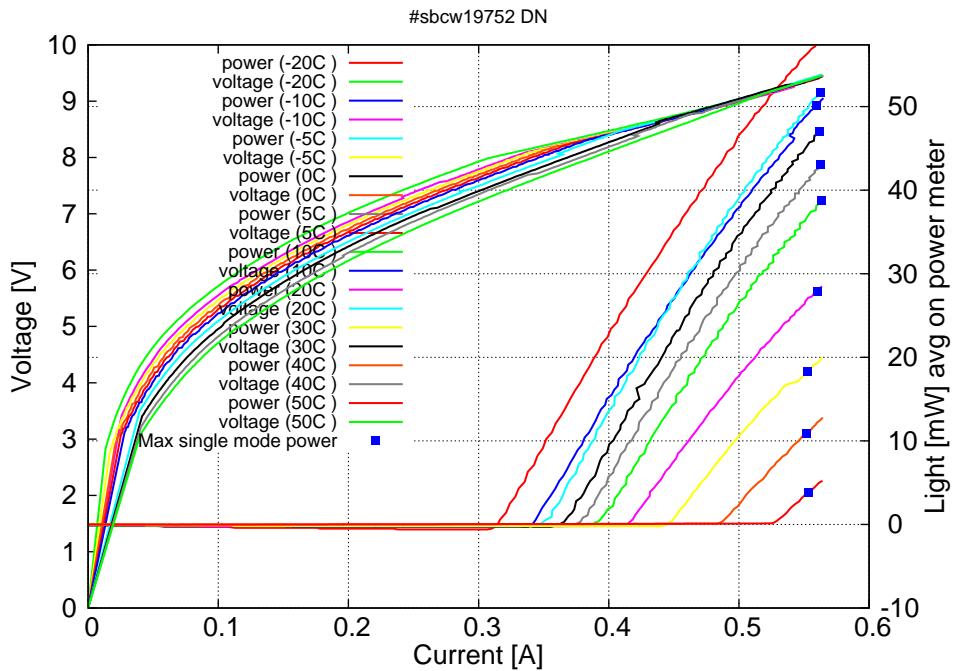


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.31A$  /  $V_{th}=8.0V$  (2-wires measurements). Maximum operation current: 0.565A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

