

Datasheet for #sbcw9695 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.

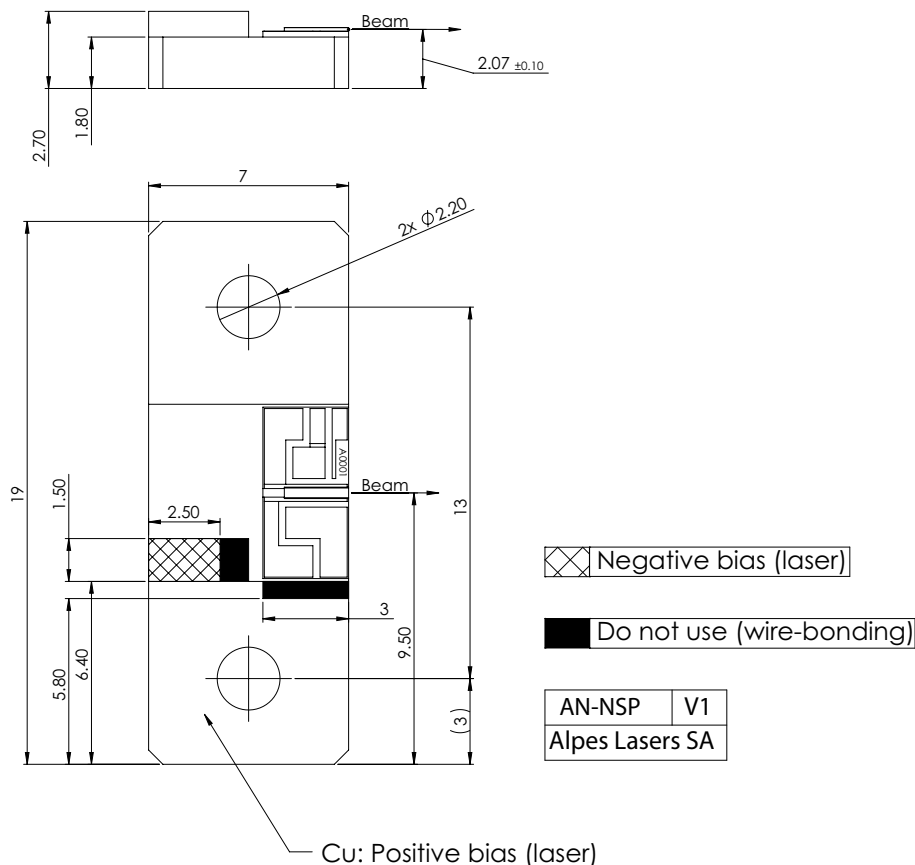


Figure 1: Mechanical and electrical interface for #sbcw9695 DN

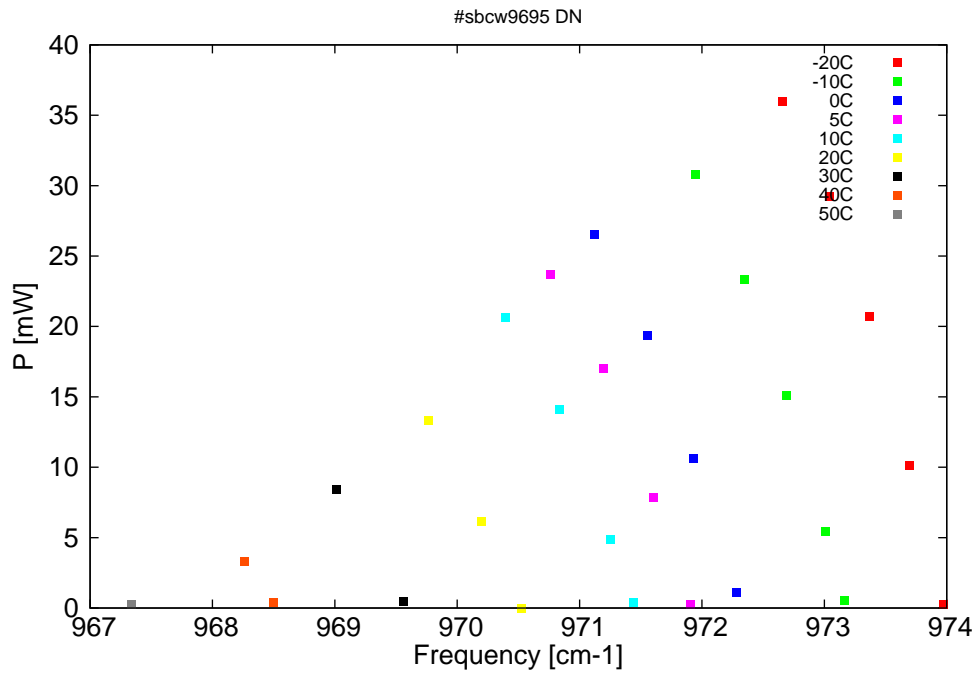


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

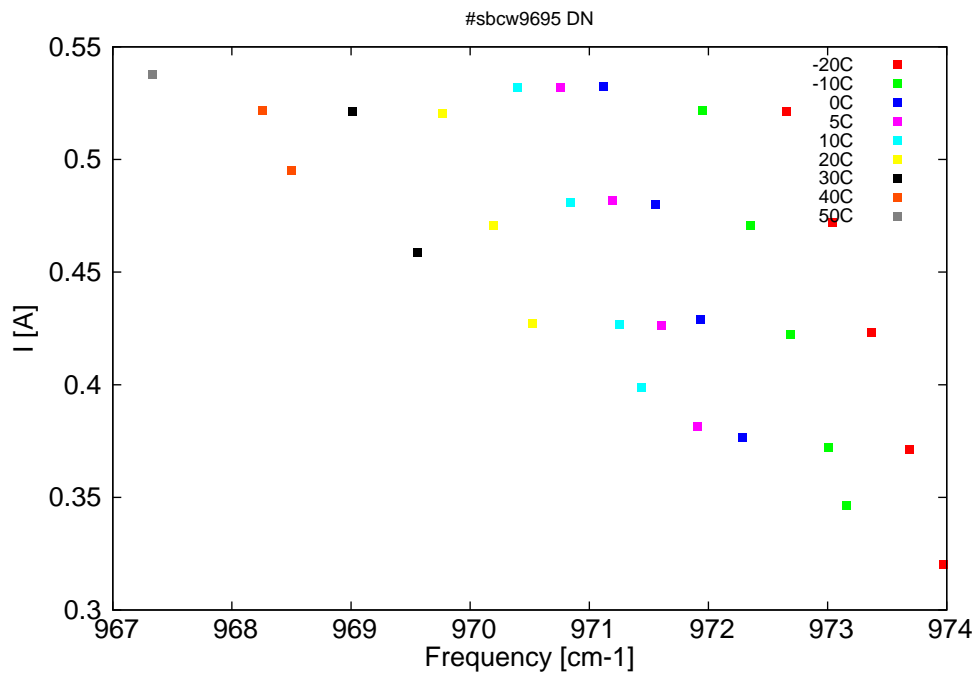


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
10267.2	974	0.2	-20	8.35	0.32
10270.2	973.7	10.1	-20	8.65	0.371
10273.6	973.4	20.7	-20	8.97	0.423
10277.1	973	29.2	-20	9.29	0.472
10281.1	972.7	36	-20	9.64	0.521
10275.8	973.2	0.6	-10	8.48	0.346
10277.4	973	5.4	-10	8.63	0.372
10280.7	972.7	15.1	-10	8.95	0.422
10284.3	972.4	23.3	-10	9.27	0.471
10288.6	971.9	30.8	-10	9.65	0.522
10285.1	972.3	1.1	0	8.65	0.377
10288.8	971.9	10.6	0	8.99	0.429
10292.8	971.6	19.4	0	9.34	0.48
10297.4	971.1	26.5	0	9.74	0.532
10289.1	971.9	0.2	5	8.67	0.382
10292.2	971.6	7.8	5	8.96	0.426
10296.6	971.2	17	5	9.35	0.482
10301.2	970.8	23.7	5	9.74	0.532
10294	971.4	0.4	10	8.78	0.399
10296	971.2	4.9	10	8.96	0.427
10300.4	970.8	14.1	10	9.34	0.481
10305.1	970.4	20.6	10	9.73	0.532
10303.7	970.5	0	20	8.95	0.427
10307.2	970.2	6.1	20	9.26	0.471
10311.8	969.8	13.3	20	9.65	0.521
10314	969.6	0.4	30	9.17	0.459
10319.8	969	8.4	30	9.66	0.521
10325.2	968.5	0.4	40	9.45	0.495
10327.8	968.3	3.3	40	9.66	0.522
10337.7	967.3	0.3	50	9.8	0.538

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

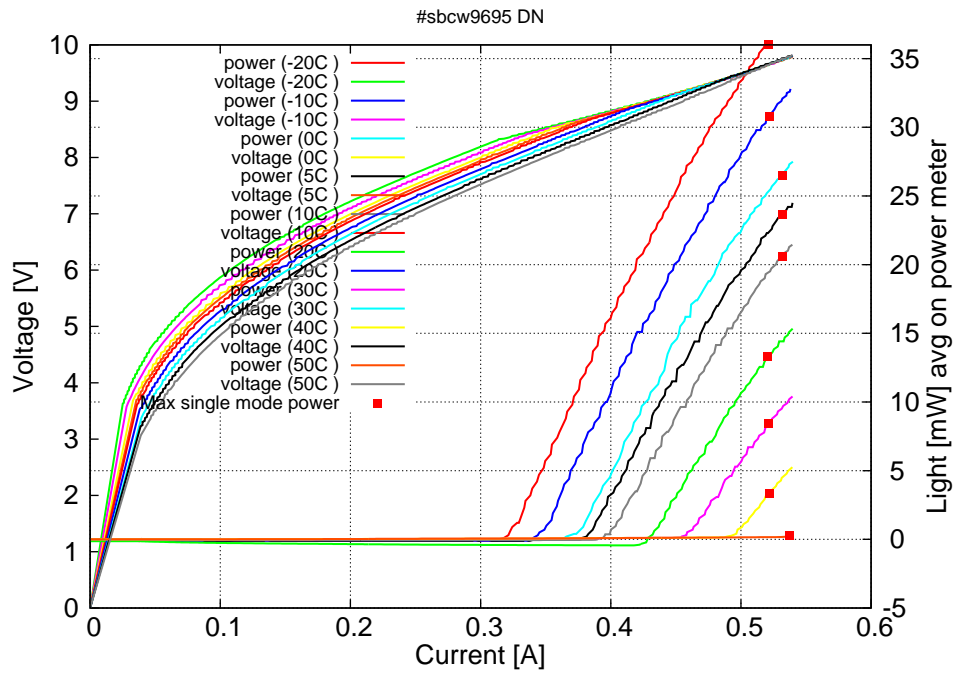


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.32A$  /  $V_{th}=8.3V$  (2-wires measurements). Maximum operation current: 0.540A for all temperatures.

