

**Datasheet for #sbcw23701 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.

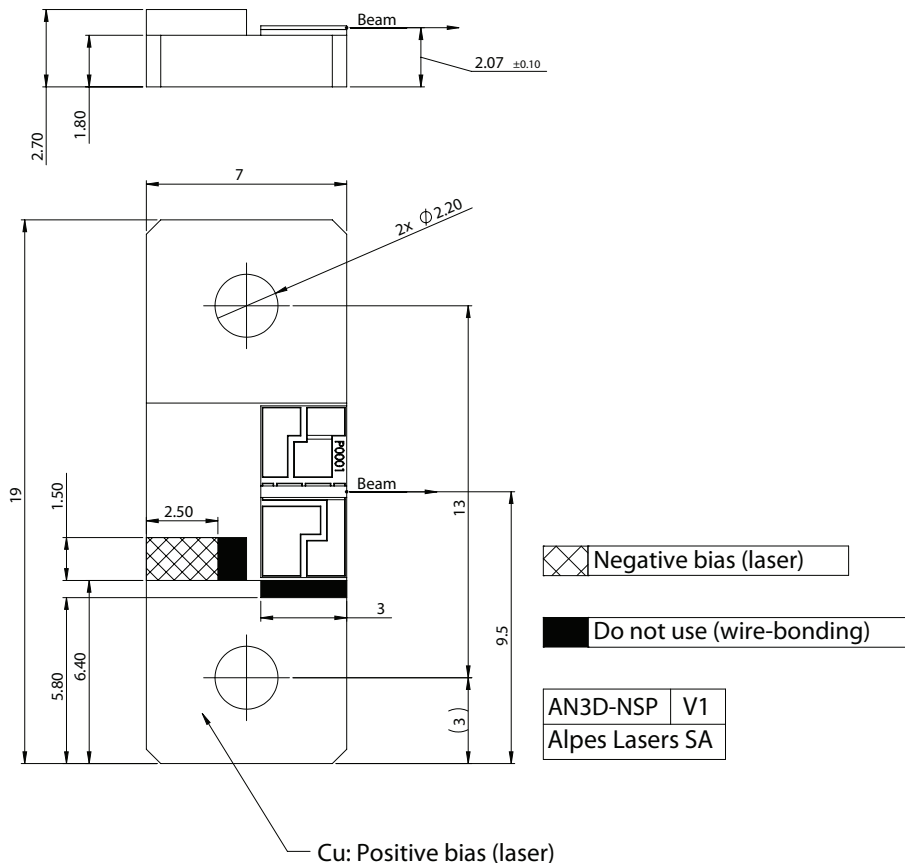


Figure 1: Mechanical and electrical interface for #sbcw23701 DN

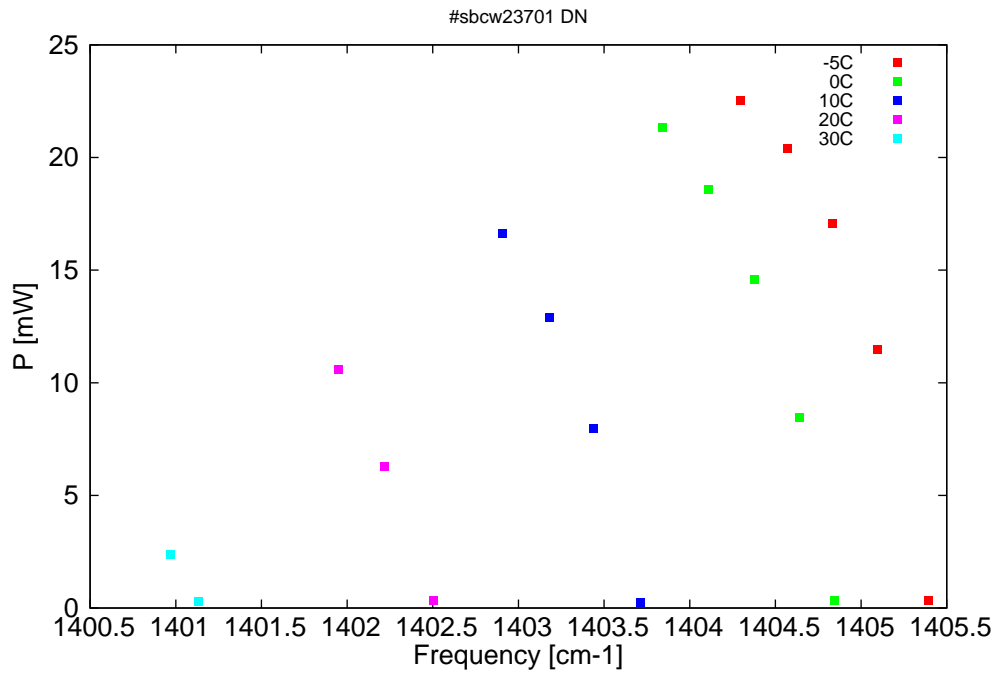


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

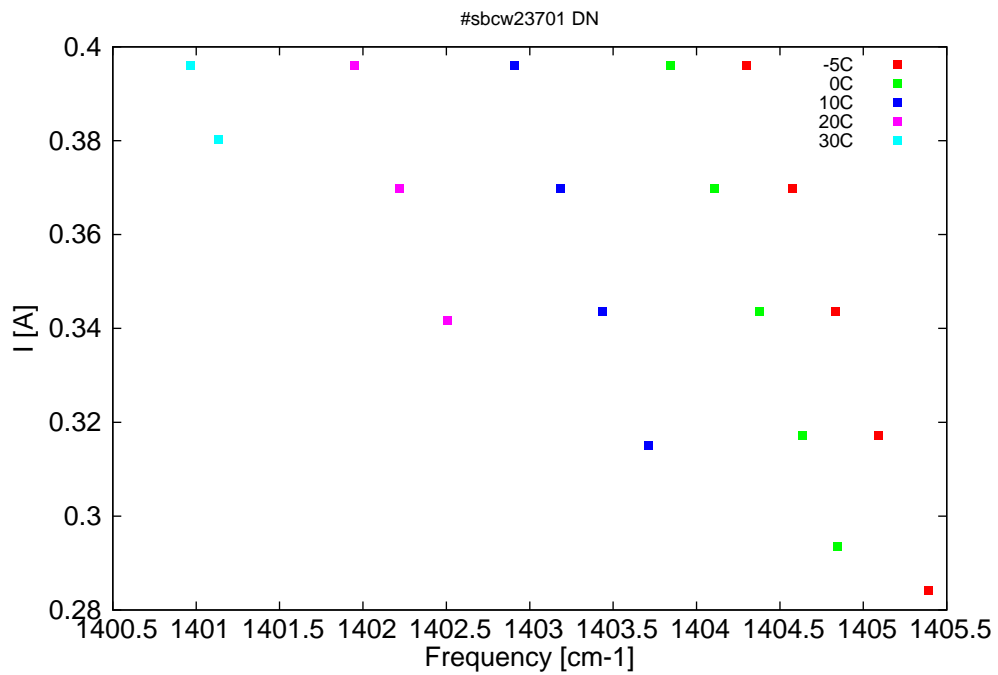


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7115.4	1405.4	0.3	-5	9.56	0.284
7117	1405.1	11.5	-5	9.76	0.317
7118.3	1404.8	17.1	-5	9.92	0.344
7119.6	1404.6	20.4	-5	10.08	0.37
7121	1404.3	22.5	-5	10.24	0.396
7118.2	1404.8	0.3	0	9.55	0.294
7119.3	1404.6	8.5	0	9.69	0.317
7120.6	1404.4	14.6	0	9.85	0.344
7121.9	1404.1	18.6	0	10	0.37
7123.3	1403.8	21.3	0	10.16	0.396
7124	1403.7	0.3	10	9.54	0.315
7125.4	1403.4	8	10	9.71	0.344
7126.7	1403.2	12.9	10	9.86	0.37
7128.1	1402.9	16.6	10	10.01	0.396
7130.1	1402.5	0.3	20	9.57	0.342
7131.6	1402.2	6.3	20	9.73	0.37
7132.9	1401.9	10.6	20	9.88	0.396
7137.1	1401.1	0.3	30	9.67	0.38
7137.9	1401	2.4	30	9.76	0.396

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

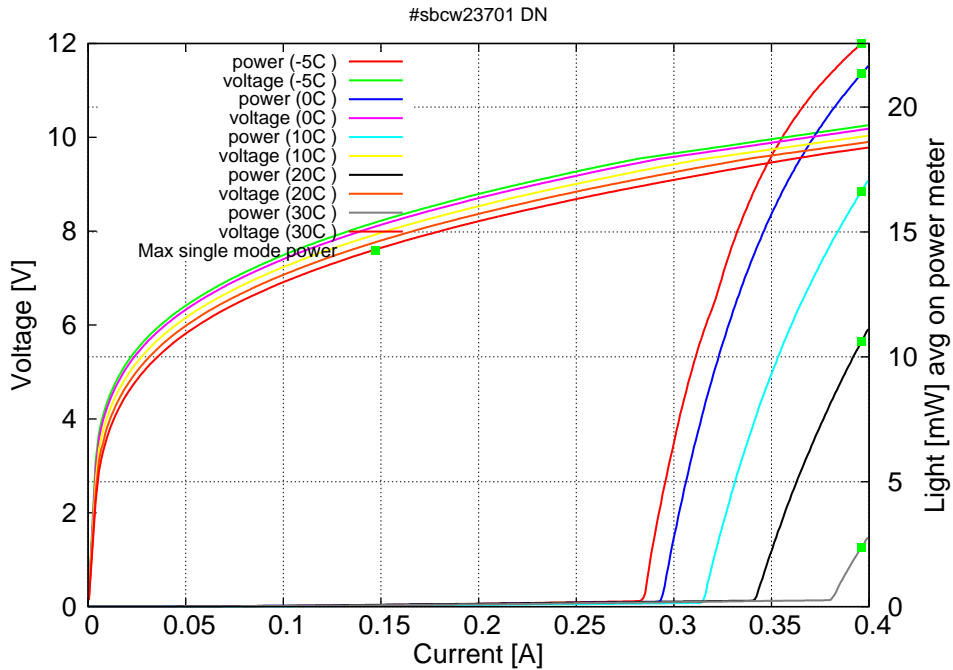


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -5C:  $I_{th}=0.28A$  /  $V_{th}=9.5V$  (2-wires measurements). Maximum operation current: 0.40A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

