

**Datasheet for #sbcw23271 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.

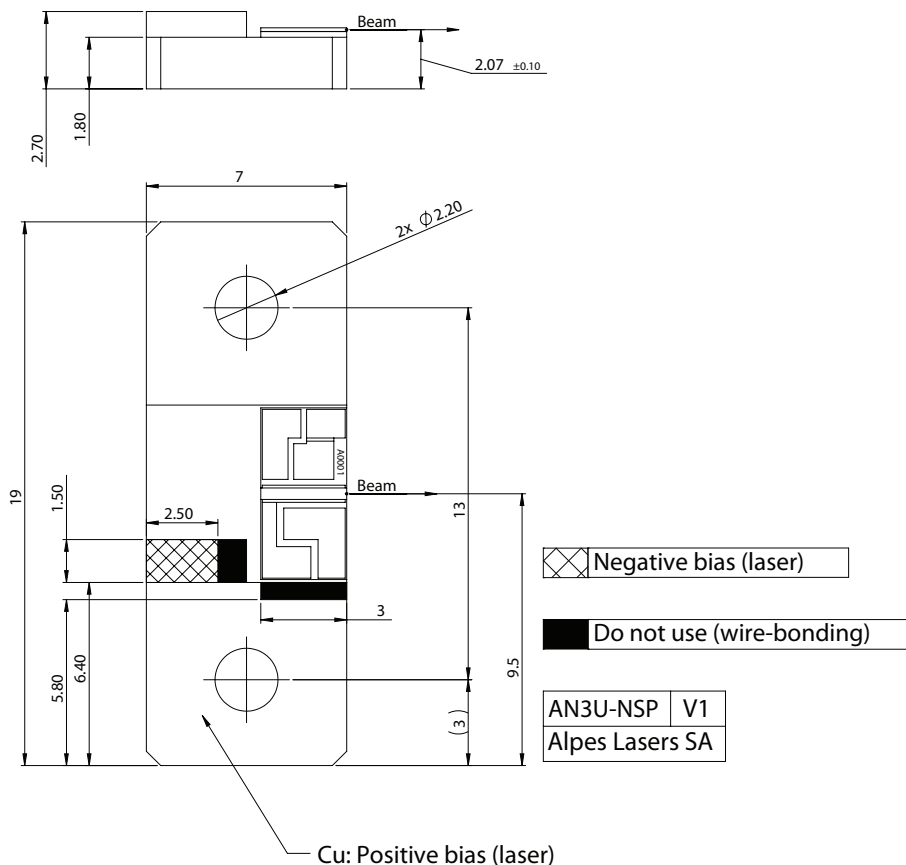


Figure 1: Mechanical and electrical interface for #sbcw23271 DN

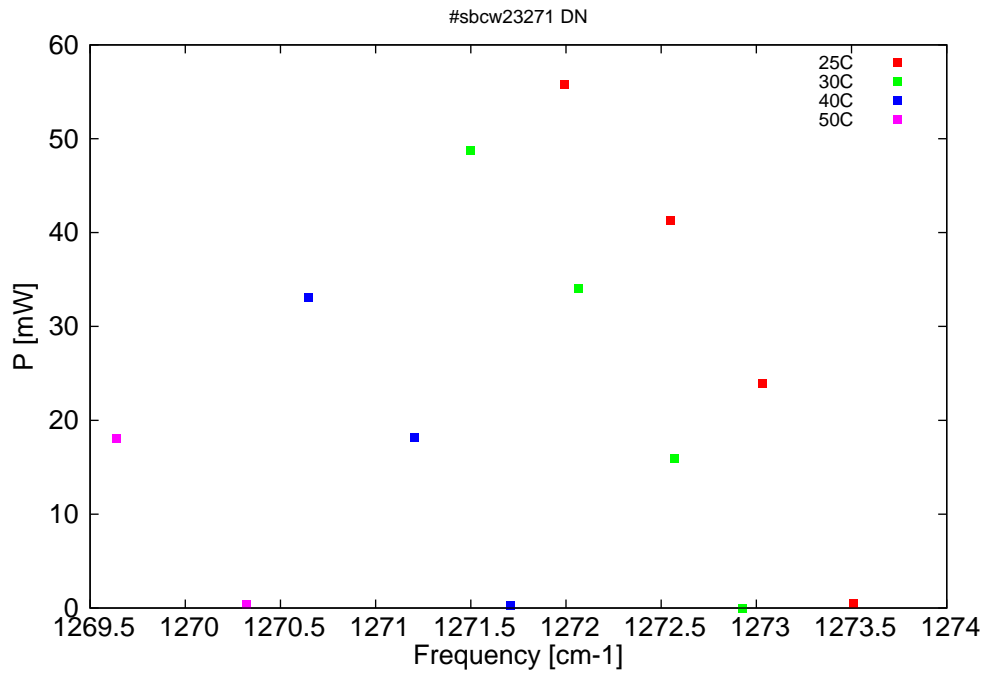


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

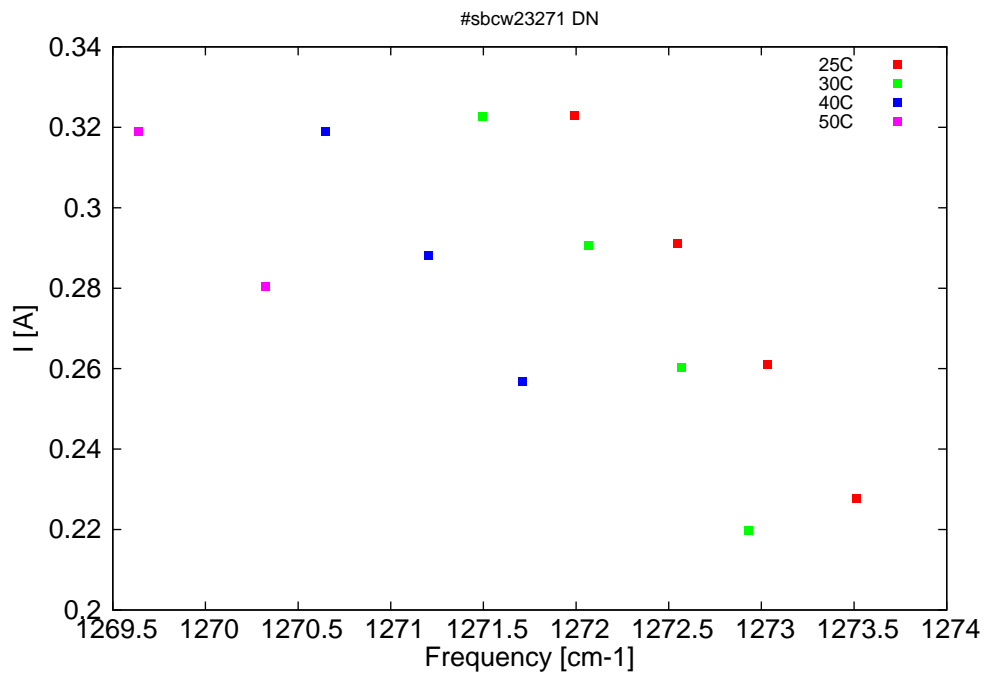


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7852.3	1273.5	0.4	25	8.71	0.228
7855.3	1273	23.9	25	8.96	0.261
7858.3	1272.5	41.3	25	9.2	0.291
7861.7	1272	55.8	25	9.44	0.323
7855.9	1272.9	0	30	8.62	0.22
7858.1	1272.6	16	30	8.91	0.26
7861.2	1272.1	34	30	9.15	0.291
7864.7	1271.5	48.7	30	9.4	0.323
7863.4	1271.7	0.3	40	8.81	0.257
7866.6	1271.2	18.1	40	9.04	0.288
7870	1270.6	33.1	40	9.28	0.319
7872	1270.3	0.4	50	8.91	0.28
7876.3	1269.6	18.1	50	9.21	0.319

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

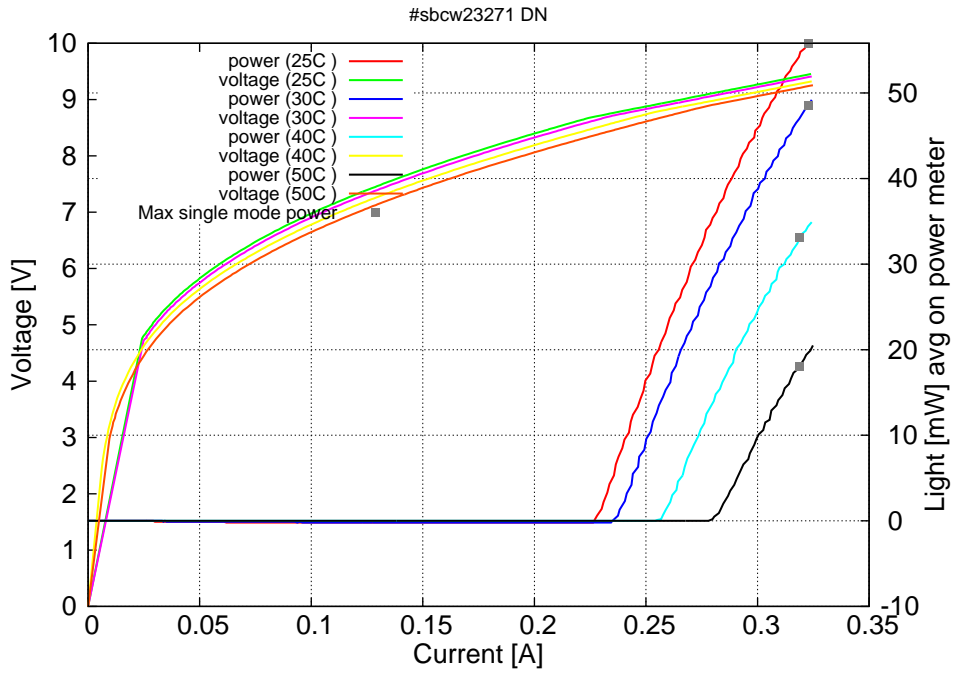


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at 25C:  $I_{th}=0.22A$  /  $V_{th}=8.7V$  (2-wires measurements). Maximum operation current: 0.325A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

