

**Datasheet for #sbcw23273 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 #sbcw23273 DN

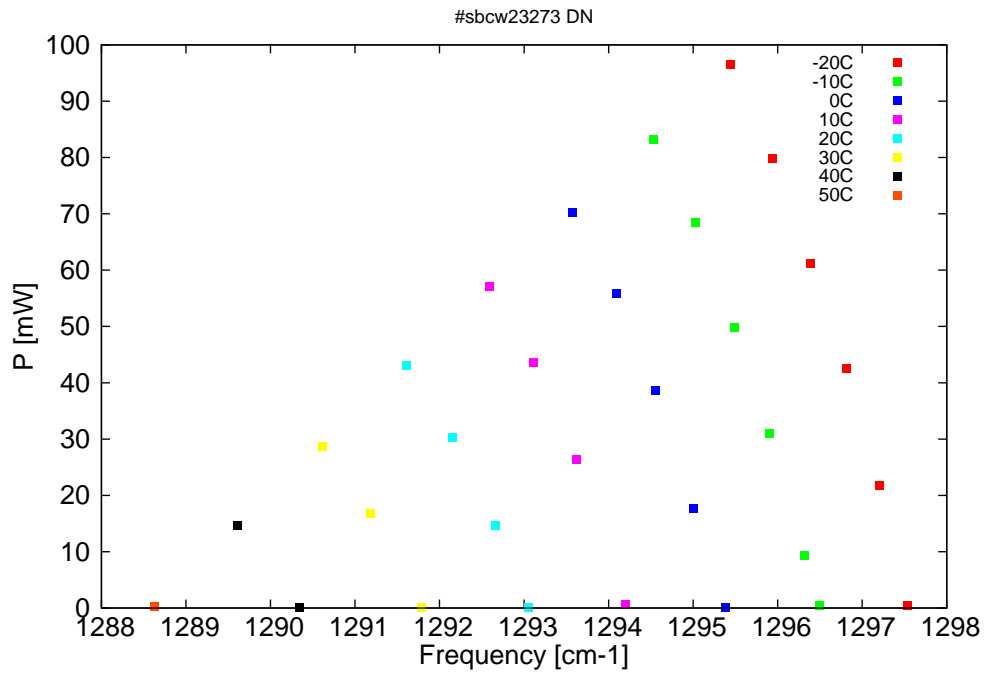


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

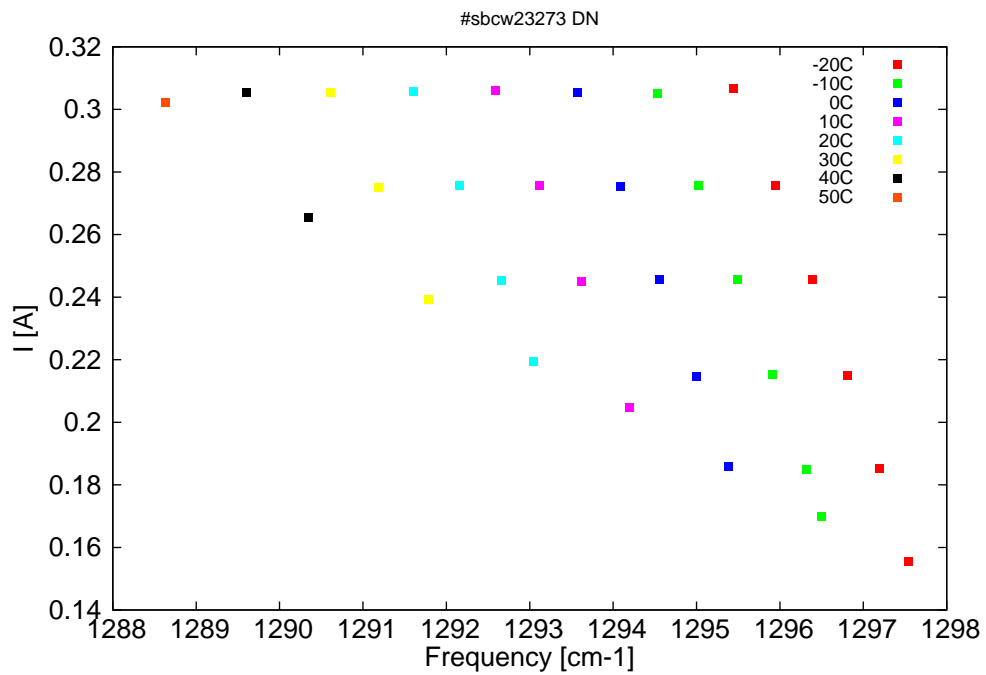


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7706.9	1297.5	0.4	-20	9.02	0.155
7708.9	1297.2	21.8	-20	9.3	0.185
7711.2	1296.8	42.5	-20	9.57	0.215
7713.7	1296.4	61.2	-20	9.83	0.246
7716.4	1295.9	79.9	-20	10.08	0.276
7719.4	1295.4	96.4	-20	10.34	0.307
7713.1	1296.5	0.4	-10	9.02	0.17
7714.2	1296.3	9.4	-10	9.16	0.185
7716.6	1295.9	31	-10	9.44	0.215
7719.1	1295.5	49.8	-10	9.69	0.246
7721.8	1295	68.5	-10	9.94	0.276
7724.8	1294.5	83.2	-10	10.19	0.305
7719.7	1295.4	0.1	0	9.04	0.186
7722	1295	17.7	0	9.3	0.215
7724.6	1294.6	38.6	0	9.56	0.246
7727.4	1294.1	55.8	0	9.8	0.275
7730.5	1293.6	70.3	0	10.06	0.305
7726.8	1294.2	0.6	10	9.08	0.205
7730.2	1293.6	26.4	10	9.42	0.245
7733.3	1293.1	43.6	10	9.68	0.276
7736.4	1292.6	57.1	10	9.93	0.306
7733.7	1293	0.1	20	9.07	0.219
7736	1292.7	14.6	20	9.29	0.245
7739	1292.2	30.3	20	9.54	0.276
7742.3	1291.6	43.1	20	9.8	0.306
7741.3	1291.8	0.1	30	9.11	0.239
7744.9	1291.2	16.8	30	9.42	0.275
7748.2	1290.6	28.8	30	9.67	0.305
7749.9	1290.3	0.1	40	9.22	0.266
7754.3	1289.6	14.6	40	9.55	0.305
7760.2	1288.6	0.2	50	9.42	0.302

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

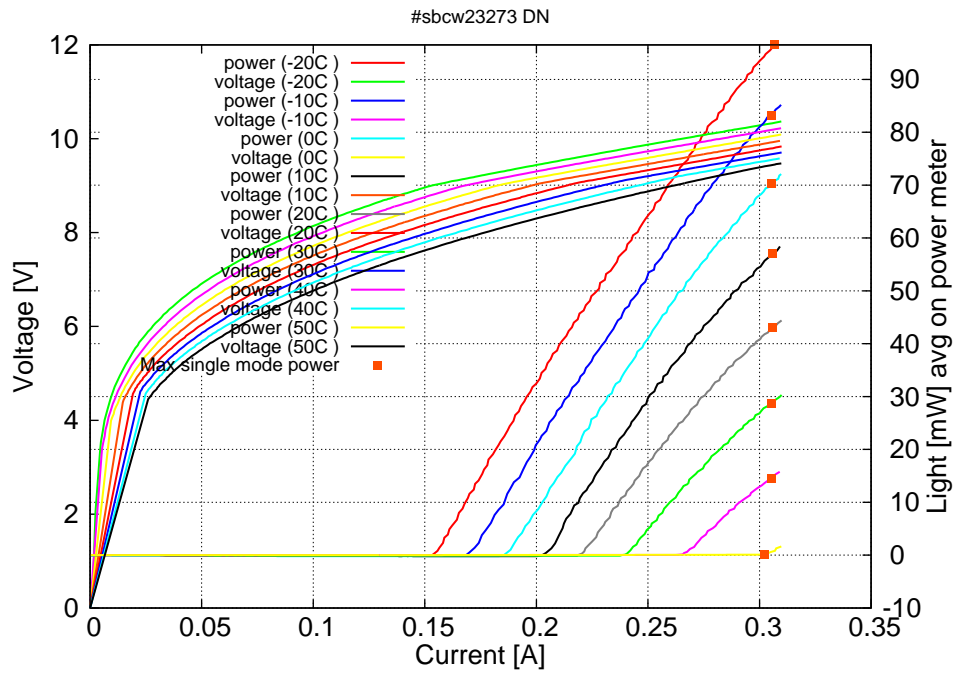


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.15A$  /  $V_{th}=9.0V$  (2-wires measurements). Maximum operation current: 0.31A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

