

**Datasheet for #sbcw23698 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 bias and positive bias on the specific zones drawn below. 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 #sbcw23698 DN (please note that AlN submount numbering is A10RL)

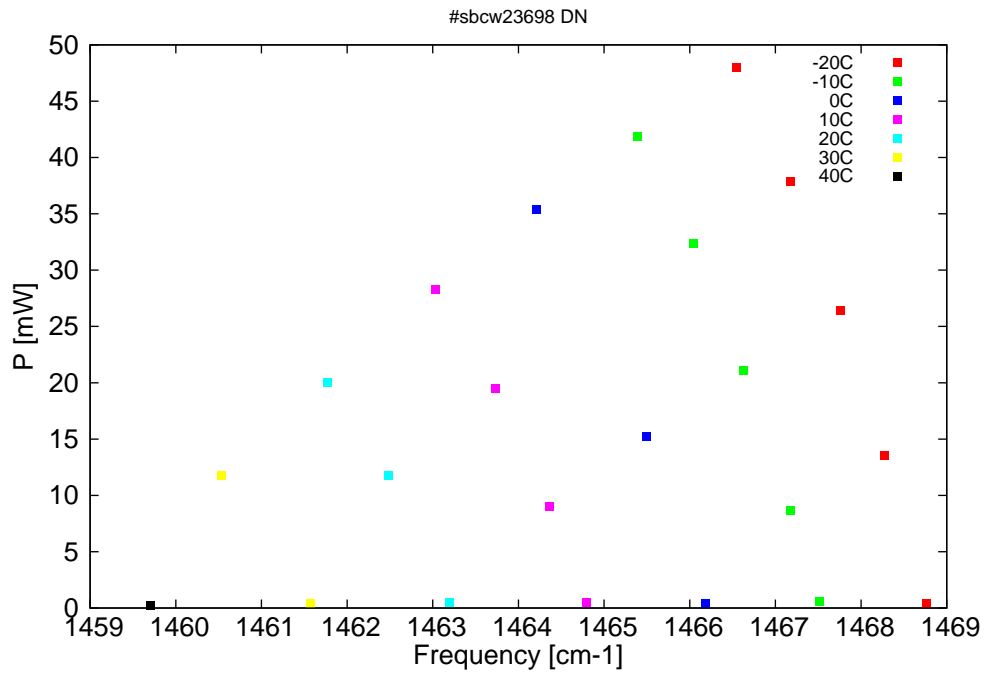


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

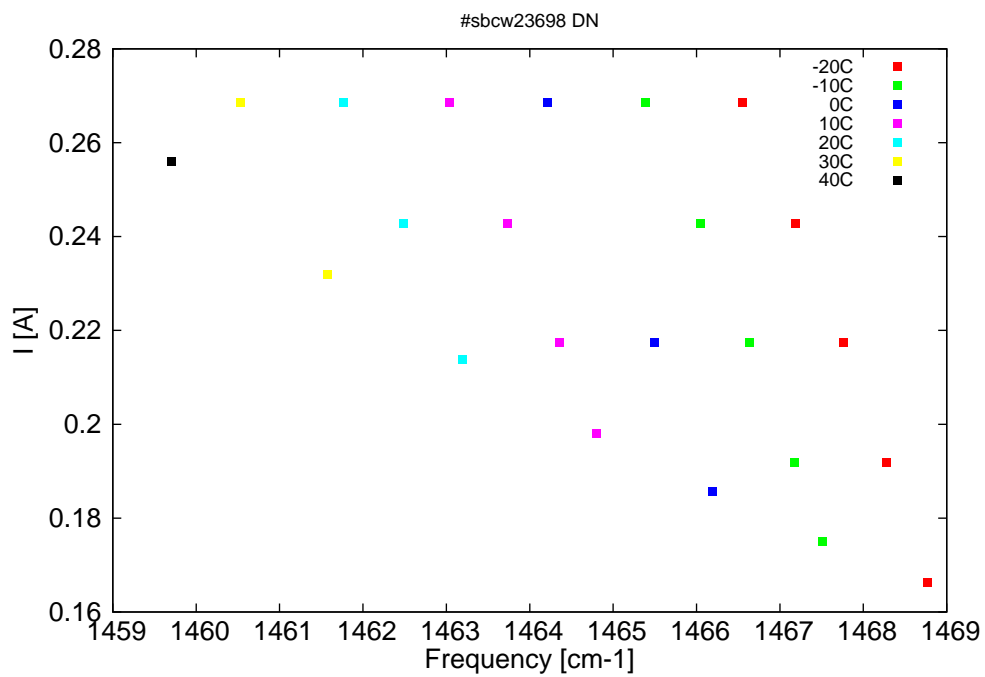


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
6808.4	1468.8	0.4	-20	10.73	0.166
6810.7	1468.3	13.5	-20	11.01	0.192
6813.1	1467.8	26.4	-20	11.3	0.217
6815.8	1467.2	37.8	-20	11.59	0.243
6818.7	1466.6	48	-20	11.89	0.269
6814.2	1467.5	0.6	-10	10.69	0.175
6815.8	1467.2	8.6	-10	10.88	0.192
6818.3	1466.6	21.1	-10	11.18	0.217
6821.1	1466	32.4	-10	11.47	0.243
6824.1	1465.4	41.9	-10	11.76	0.269
6820.4	1466.2	0.4	0	10.68	0.186
6823.6	1465.5	15.2	0	11.05	0.217
6829.6	1464.2	35.4	0	11.64	0.269
6826.9	1464.8	0.5	10	10.7	0.198
6828.9	1464.4	9	10	10.93	0.217
6831.9	1463.7	19.5	10	11.23	0.243
6835.1	1463	28.3	10	11.53	0.269
6834.4	1463.2	0.5	20	10.77	0.214
6837.7	1462.5	11.8	20	11.12	0.243
6841	1461.8	20.1	20	11.42	0.269
6841.9	1461.6	0.4	30	10.88	0.232
6846.8	1460.5	11.8	30	11.32	0.269
6850.7	1459.7	0.3	40	11.06	0.256

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

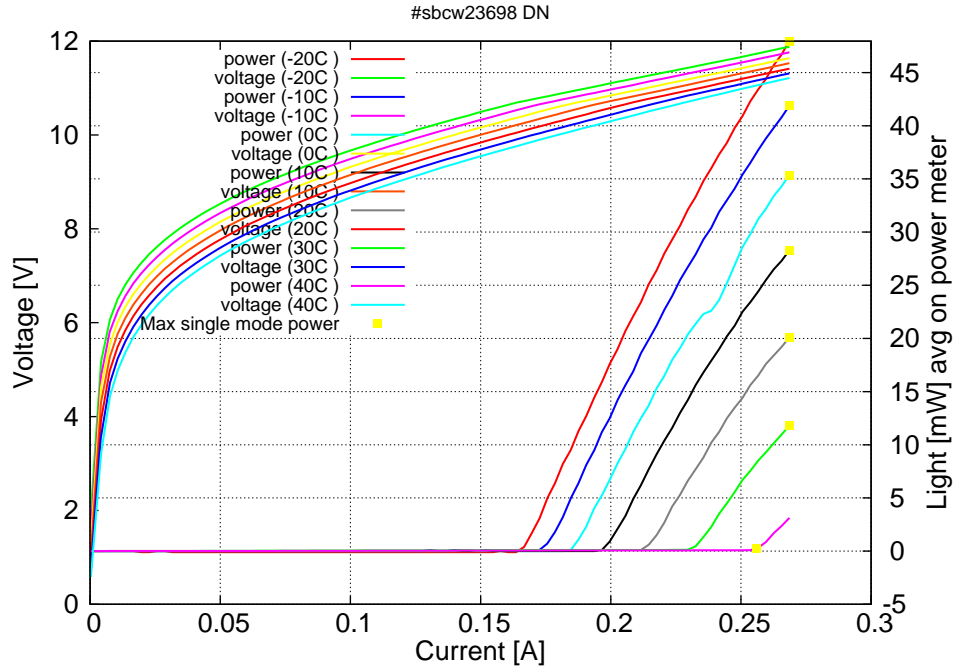


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.16A$  /  $V_{th}=10.7V$  (2-wires measurements). Maximum operation current: 0.27A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

