

**Datasheet for #sbcw23715 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.

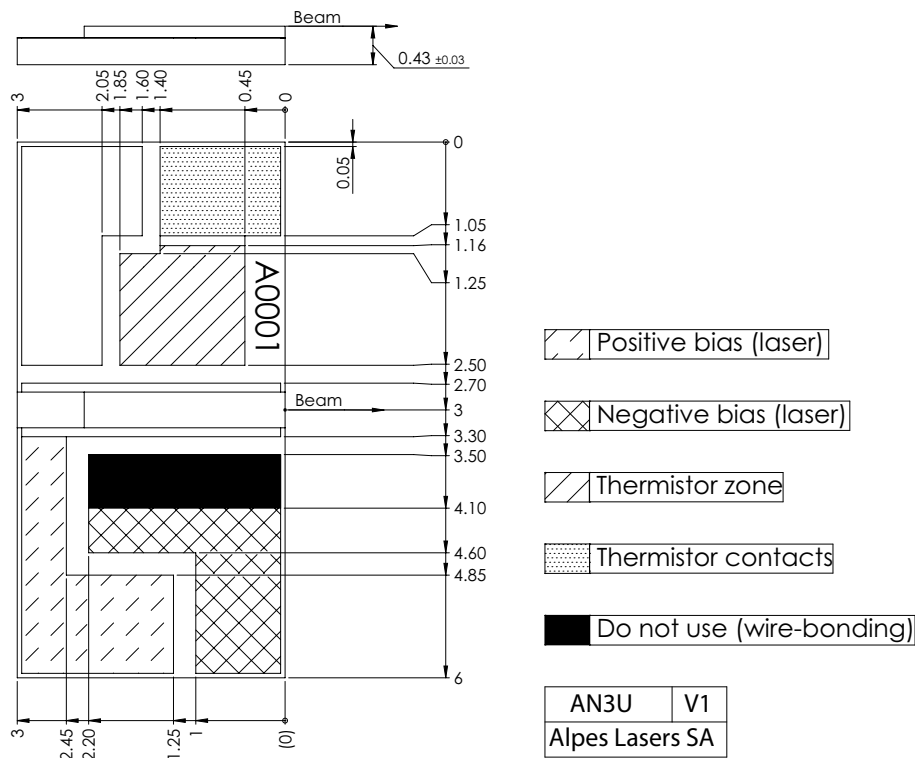


Figure 1: Mechanical and electrical interface for #sbcw23715 DN (please note that AlN submount numbering is A0YVA)

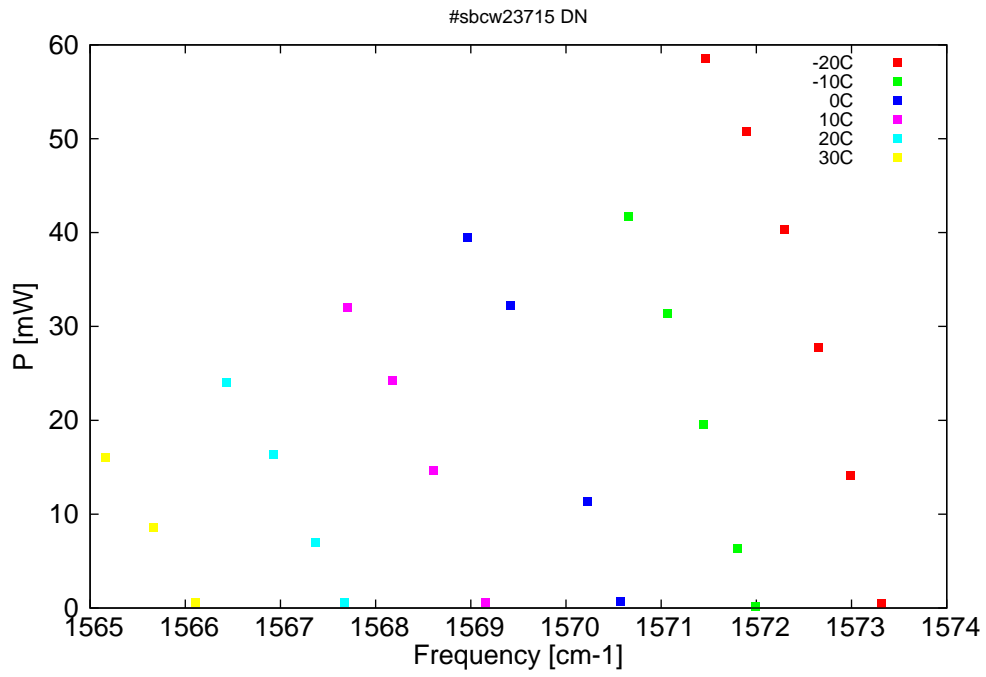


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

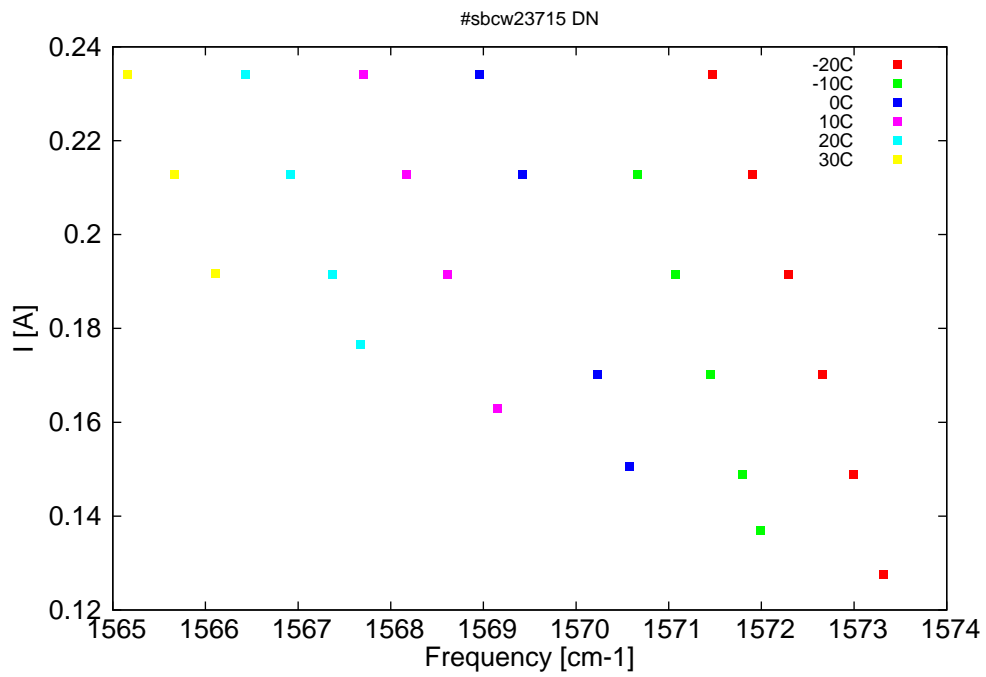


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
6356	1573.3	0.5	-20	8.88	0.128
6357.3	1573	14.1	-20	9.1	0.149
6358.7	1572.7	27.7	-20	9.32	0.17
6360.1	1572.3	40.3	-20	9.53	0.192
6361.7	1571.9	50.7	-20	9.74	0.213
6363.5	1571.5	58.6	-20	9.96	0.234
6361.4	1572	0.2	-10	8.92	0.137
6362.1	1571.8	6.4	-10	9.04	0.149
6363.5	1571.4	19.5	-10	9.27	0.17
6365.1	1571.1	31.4	-10	9.48	0.192
6366.8	1570.7	41.7	-10	9.69	0.213
6367.1	1570.6	0.7	0	9	0.151
6368.5	1570.2	11.3	0	9.21	0.17
6371.8	1569.4	32.2	0	9.64	0.213
6373.6	1569	39.4	0	9.86	0.234
6372.9	1569.2	0.6	10	9.08	0.163
6375.1	1568.6	14.7	10	9.38	0.192
6376.8	1568.2	24.3	10	9.6	0.213
6378.8	1567.7	32.1	10	9.82	0.234
6378.9	1567.7	0.6	20	9.17	0.177
6380.1	1567.4	7	20	9.33	0.192
6381.9	1566.9	16.4	20	9.55	0.213
6383.9	1566.4	24.1	20	9.77	0.234
6385.2	1566.1	0.6	30	9.28	0.192
6387.1	1565.7	8.6	30	9.5	0.213
6389.1	1565.2	16.1	30	9.73	0.234

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

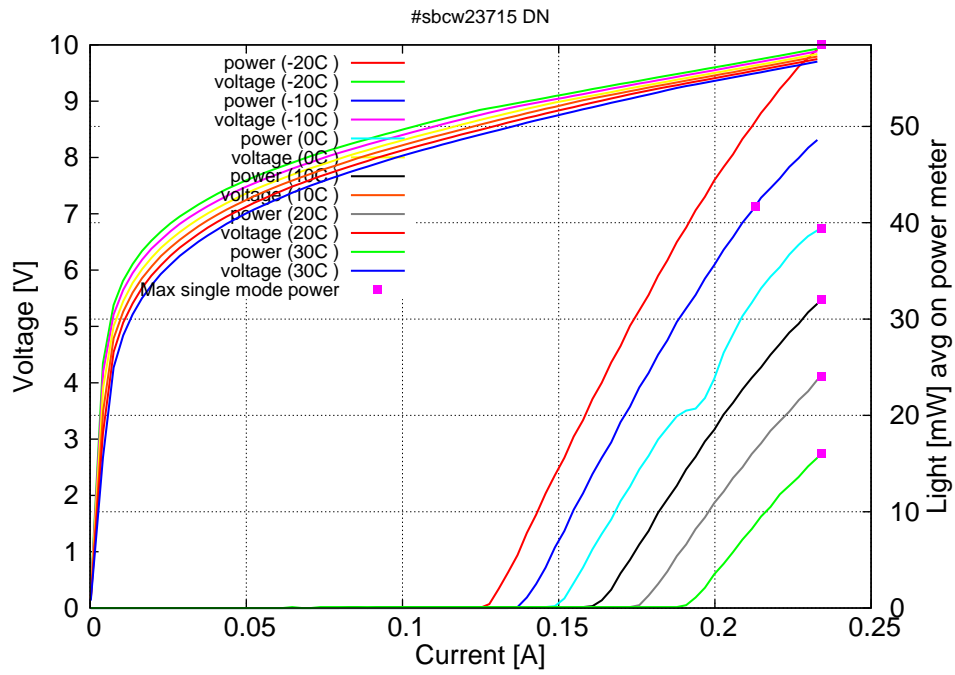


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.13A$  /  $V_{th}=8.9V$  (2-wires measurements). Maximum operation current: 0.235A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

