

**Datasheet for #sbcw23683 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.

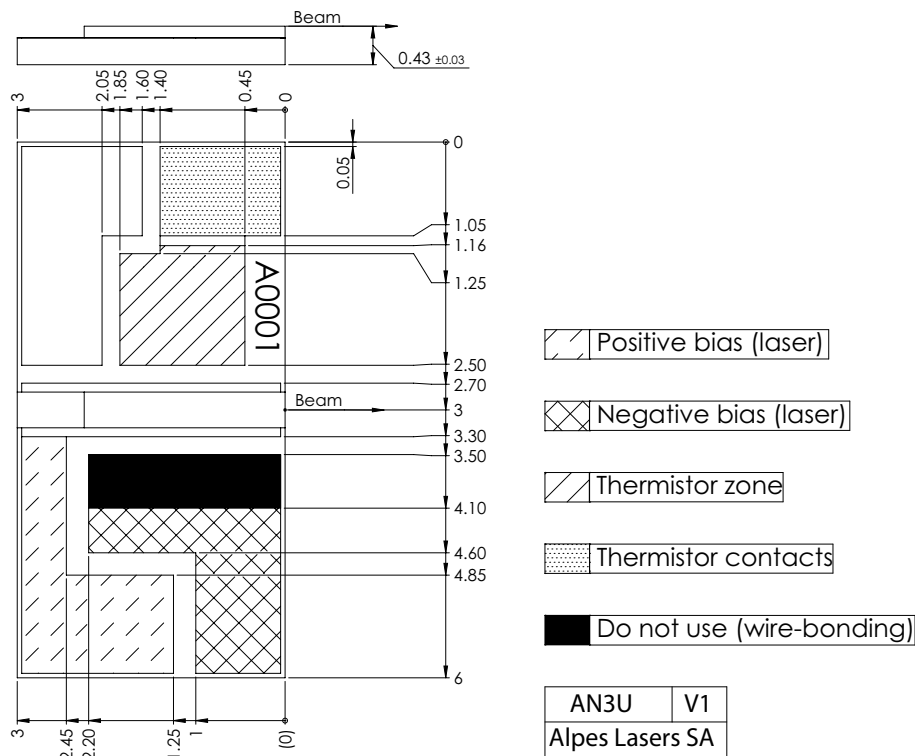


Figure 1: Mechanical and electrical interface for #sbcw23683 DN (please note that AlN submount numbering is A10ZG)

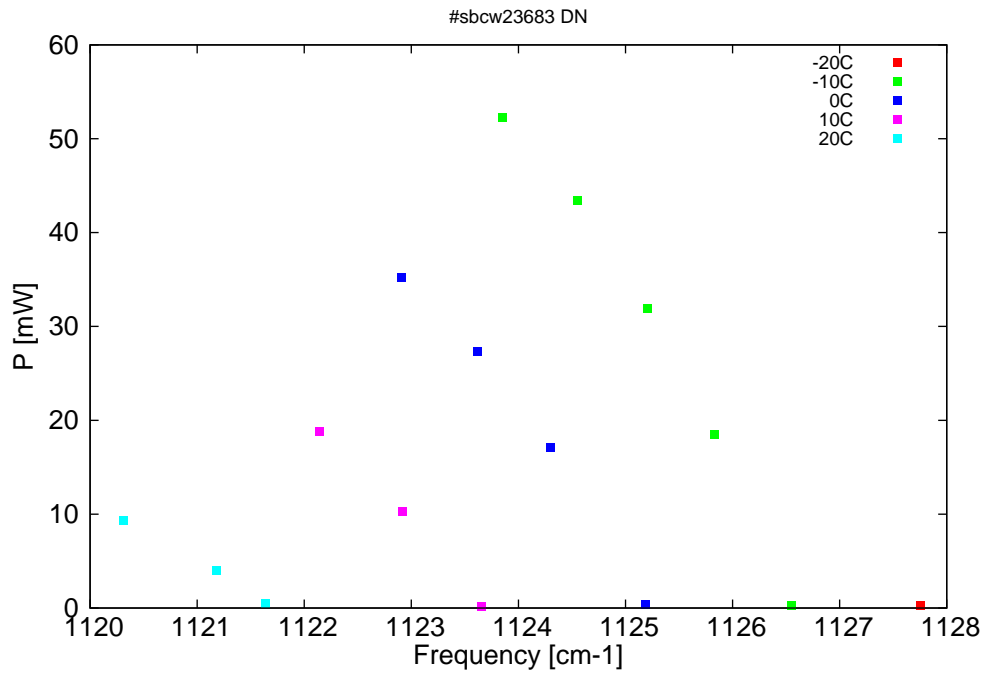


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

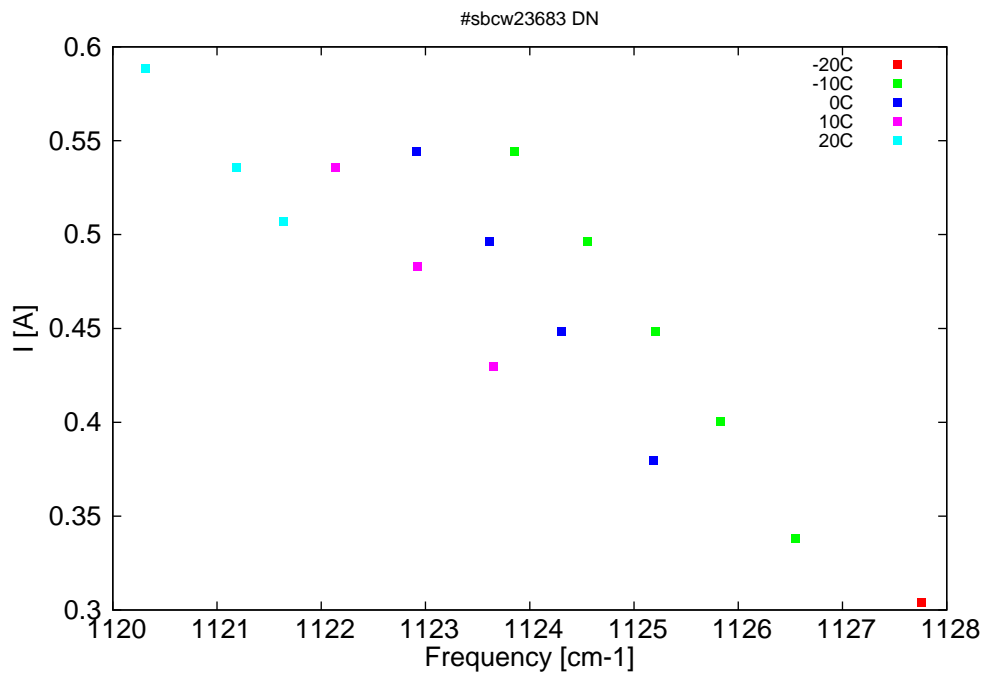


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
8867.2	1127.8	0.3	-20	10.05	0.304
8876.7	1126.6	0.3	-10	10.19	0.338
8882.4	1125.8	18.5	-10	10.68	0.4
8887.3	1125.2	32	-10	11.03	0.448
8892.4	1124.6	43.4	-10	11.38	0.496
8897.9	1123.9	52.3	-10	11.71	0.544
8887.4	1125.2	0.3	0	10.4	0.38
8894.4	1124.3	17.1	0	10.92	0.448
8899.8	1123.6	27.3	0	11.26	0.496
8905.4	1122.9	35.2	0	11.58	0.544
8899.6	1123.7	0.2	10	10.64	0.43
8905.3	1122.9	10.3	10	11.02	0.483
8911.5	1122.1	18.8	10	11.39	0.536
8915.5	1121.6	0.5	20	11.06	0.507
8919.1	1121.2	4	20	11.26	0.536
8926.1	1120.3	9.3	20	11.45	0.589

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

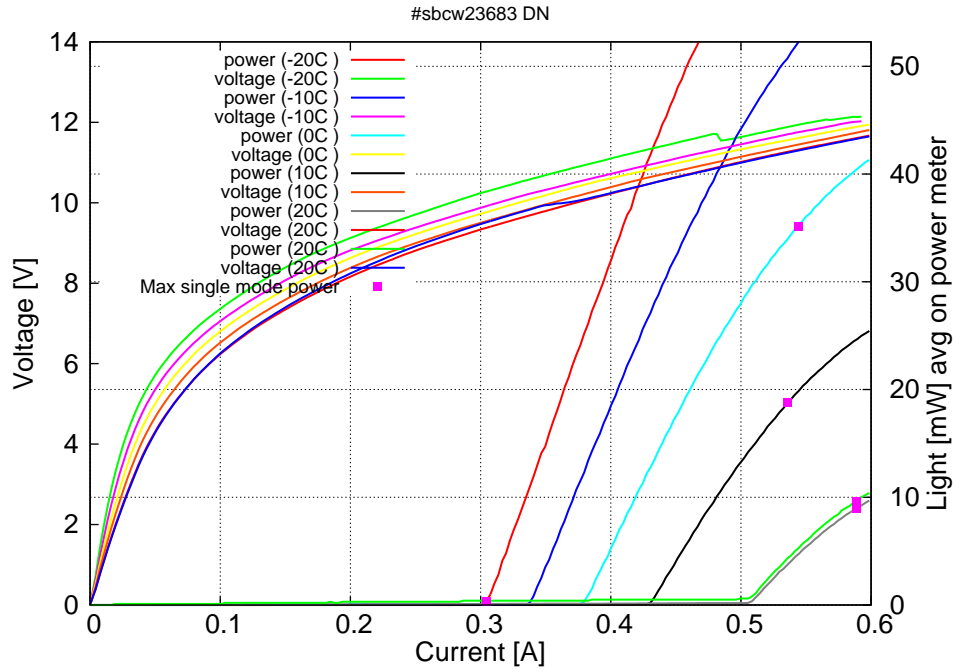


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.30A$  /  $V_{th}=10.2V$  (2-wires measurements). Maximum operation current: 0.55A between -20C and 10C, 0.6A at 20C.

Figure 3: spectra at different temperatures for various DC currents

