

**Datasheet for #sbcw23922 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.

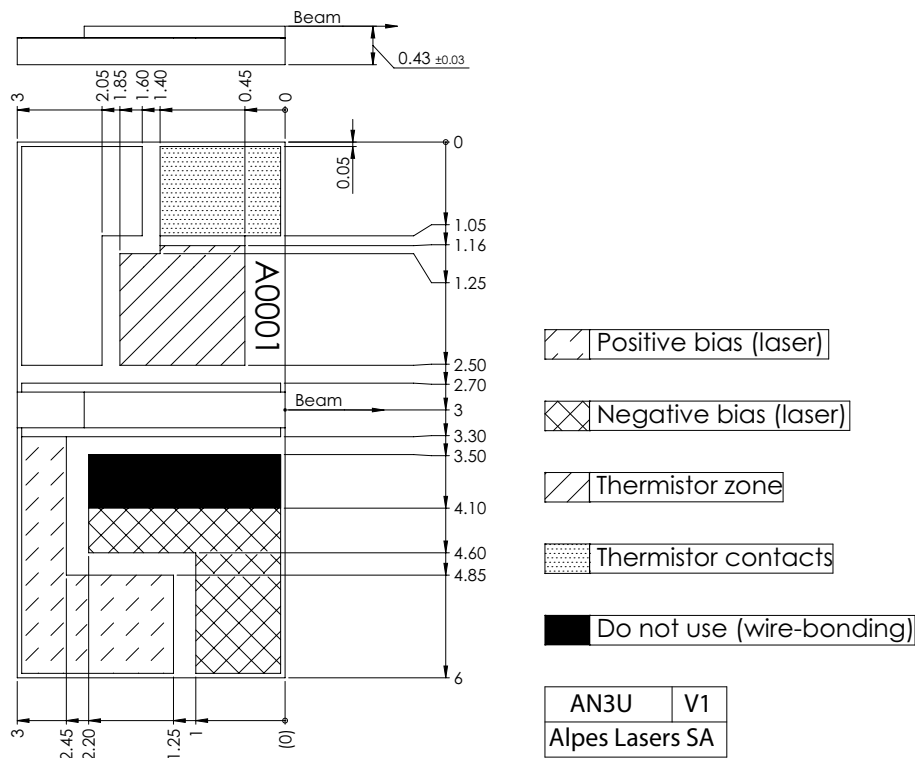


Figure 1: Mechanical and electrical interface for #sbcw23922 DN (please note that AlN submount numbering is A12RU)

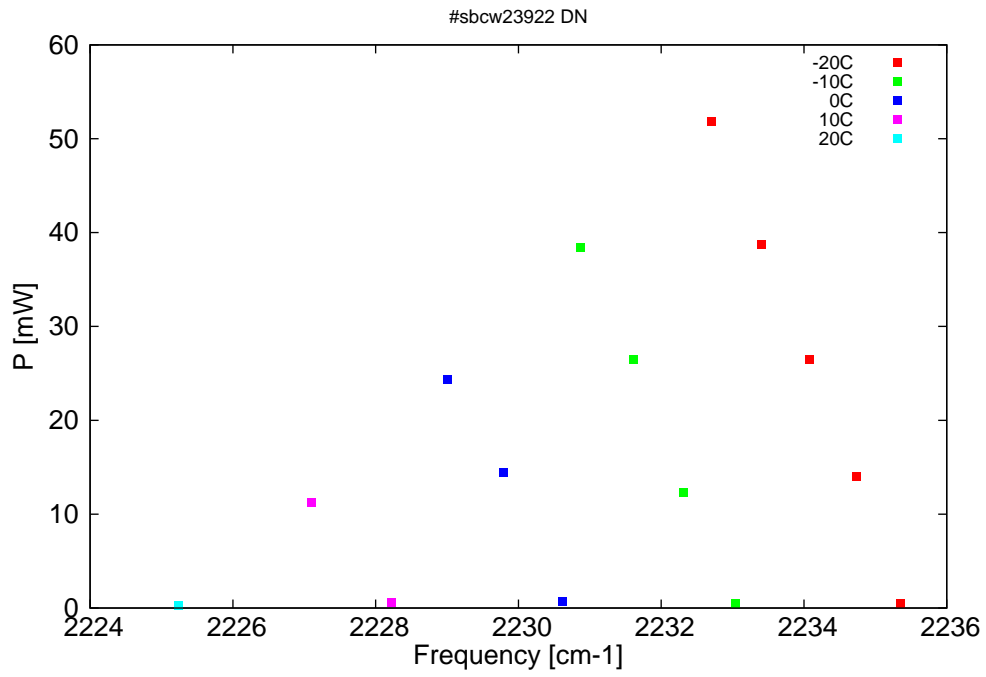


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

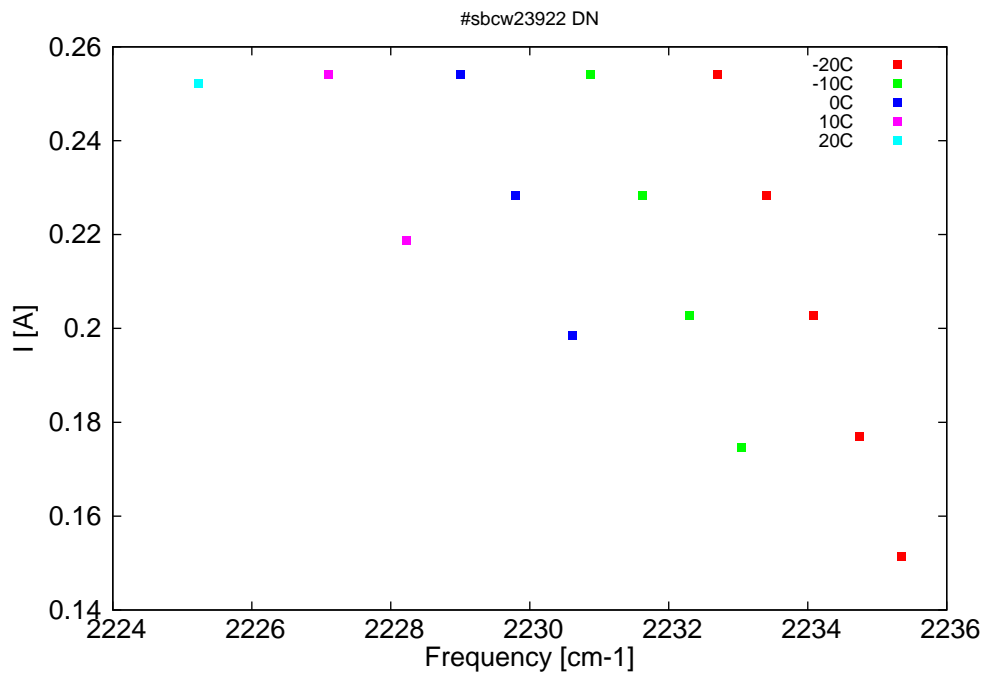


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4473.6	2235.3	0.5	-20	8.75	0.151
4474.8	2234.7	14	-20	8.97	0.177
4476.1	2234.1	26.5	-20	9.18	0.203
4477.5	2233.4	38.7	-20	9.39	0.228
4478.9	2232.7	51.8	-20	9.59	0.254
4478.2	2233	0.5	-10	8.92	0.175
4479.7	2232.3	12.3	-10	9.15	0.203
4481.1	2231.6	26.5	-10	9.35	0.228
4482.5	2230.9	38.4	-10	9.56	0.254
4483.1	2230.6	0.7	0	9.08	0.198
4484.7	2229.8	14.5	0	9.32	0.228
4486.3	2229	24.3	0	9.54	0.254
4487.9	2228.2	0.6	10	9.22	0.219
4490.1	2227.1	11.2	10	9.51	0.254
4493.9	2225.2	0.3	20	9.5	0.252

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

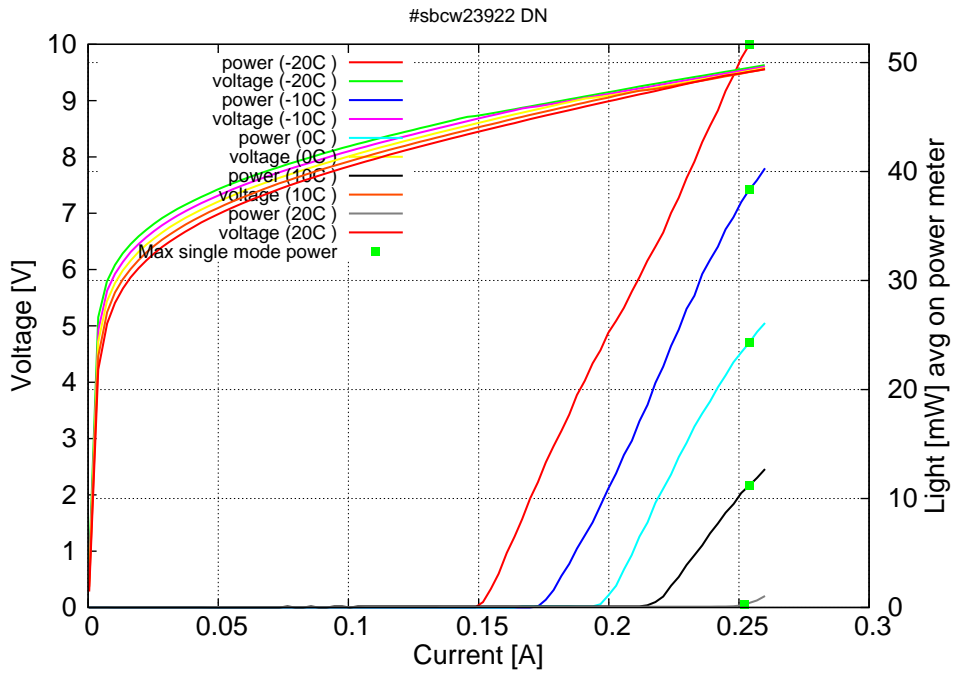


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.15A$  /  $V_{th}=8.7V$  (2-wires measurements). Maximum operation current: 0.26A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

