

Datasheet for #sbcw24939 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.

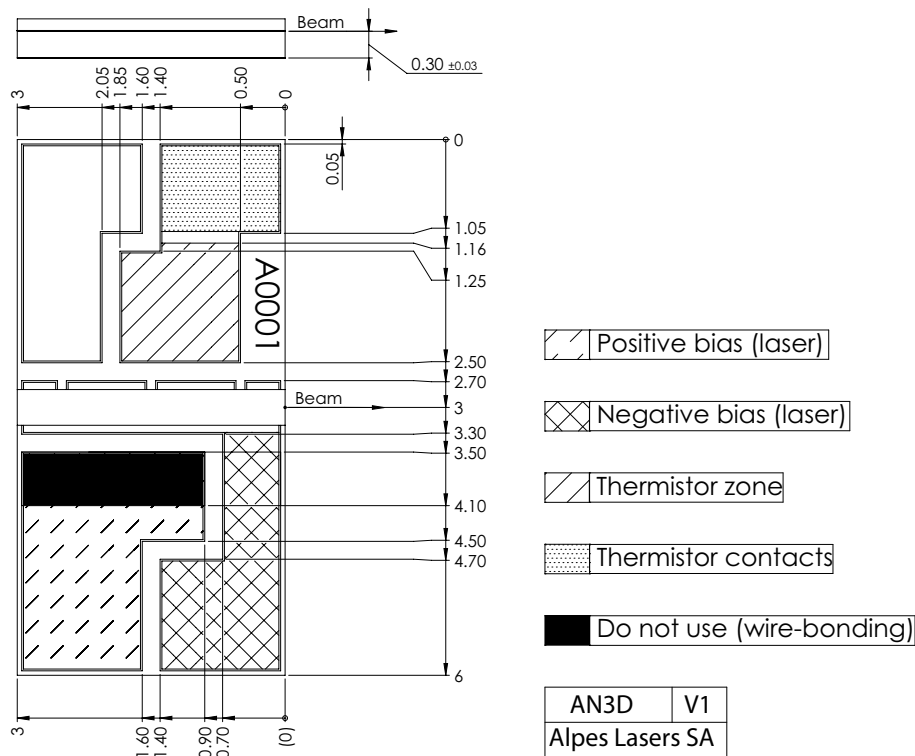


Figure 1: Mechanical and electrical interface for #sbcw24939 DN (please note that AlN submount numbering is P2820)

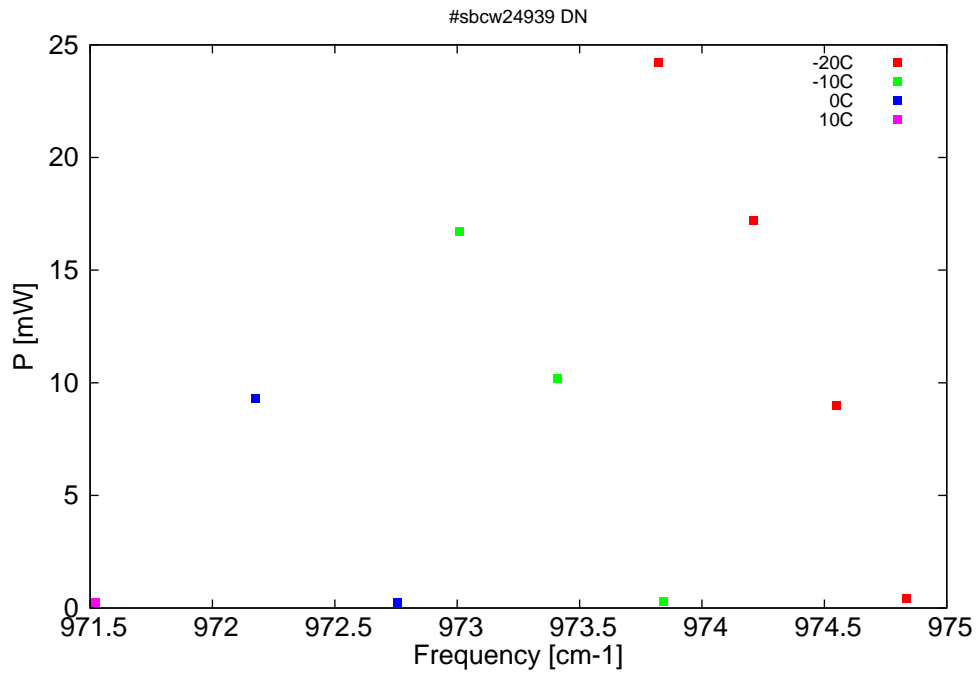


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

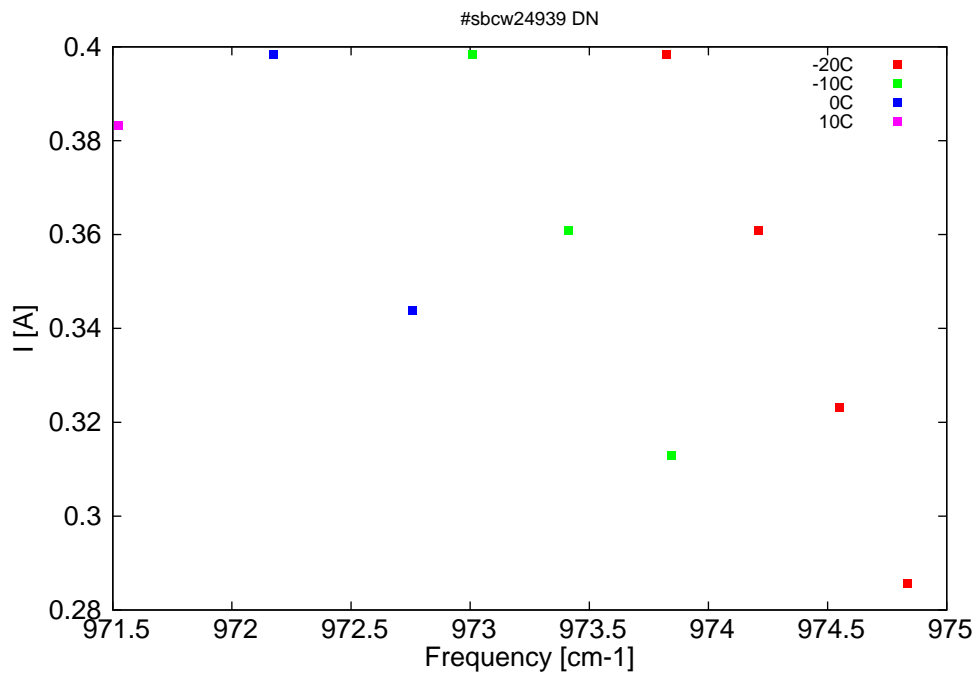


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm^{-1}]	P[mW]	Temp[$^{\circ}\text{C}$]	U_{LASER} [V]	I[A]
10258.1	974.8	0.4	-20	9.18	0.286
10261.2	974.5	9	-20	9.55	0.323
10264.7	974.2	17.2	-20	9.9	0.361
10268.8	973.8	24.2	-20	10.31	0.398
10268.6	973.8	0.3	-10	9.38	0.313
10273.2	973.4	10.2	-10	9.92	0.361
10277.4	973	16.7	-10	10.33	0.398
10280.1	972.8	0.3	0	9.63	0.344
10286.2	972.2	9.3	0	10.27	0.398
10293.1	971.5	0.3	10	10.02	0.383

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

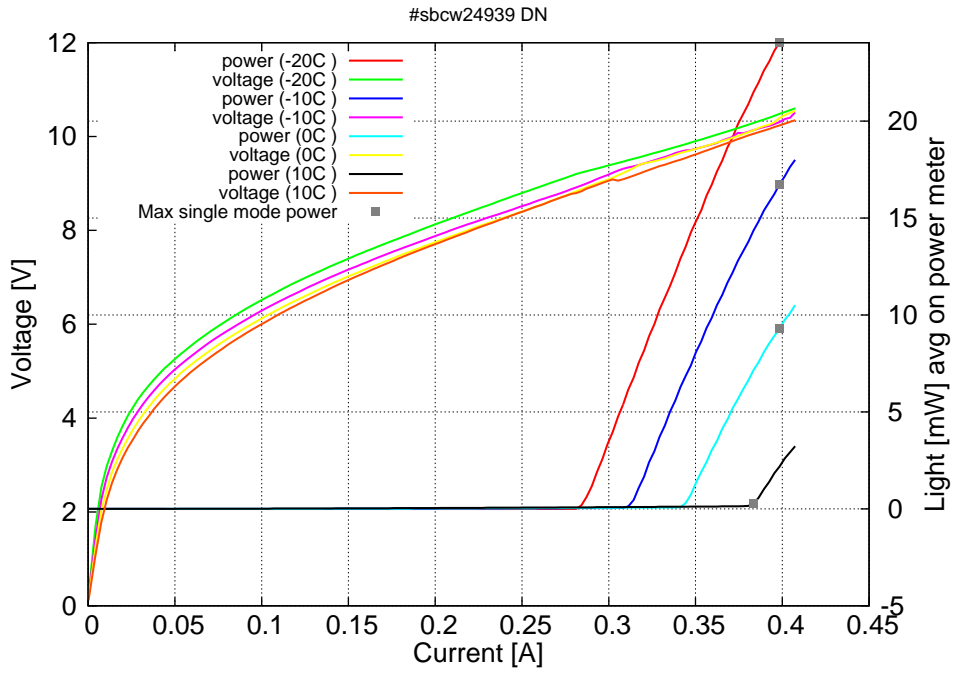


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.28\text{A}$ / $V_{th}=9.1\text{V}$ (2-wires measurements). Maximum operation current: 0.410A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

