

Datasheet for #sbcw24962 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.

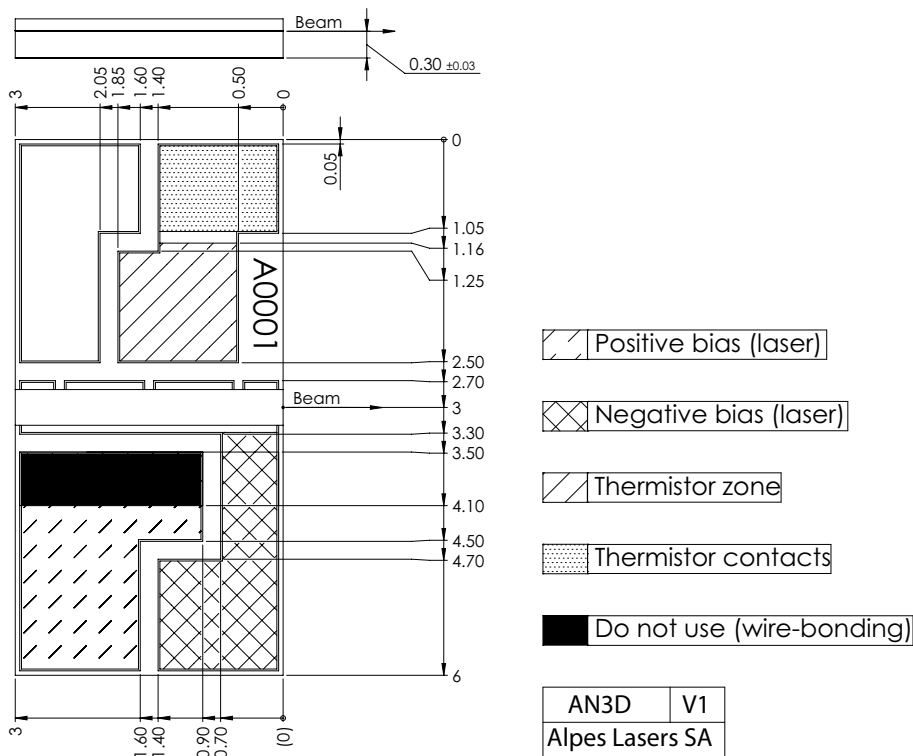


Figure 1: Mechanical and electrical interface for #sbcw24962 DN (please note that AlN submount numbering is P3734)

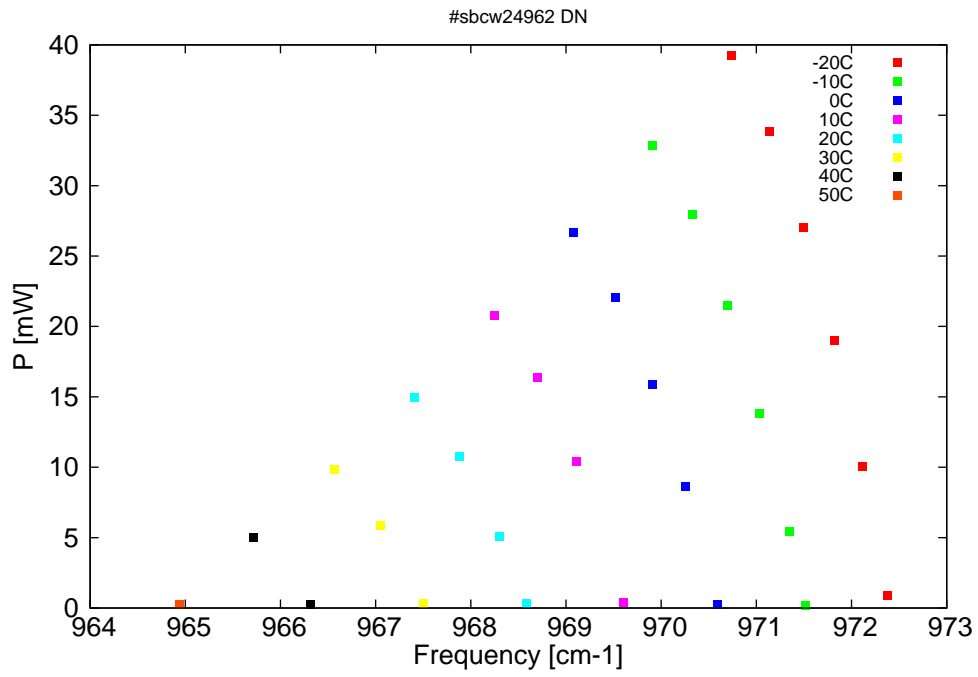


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

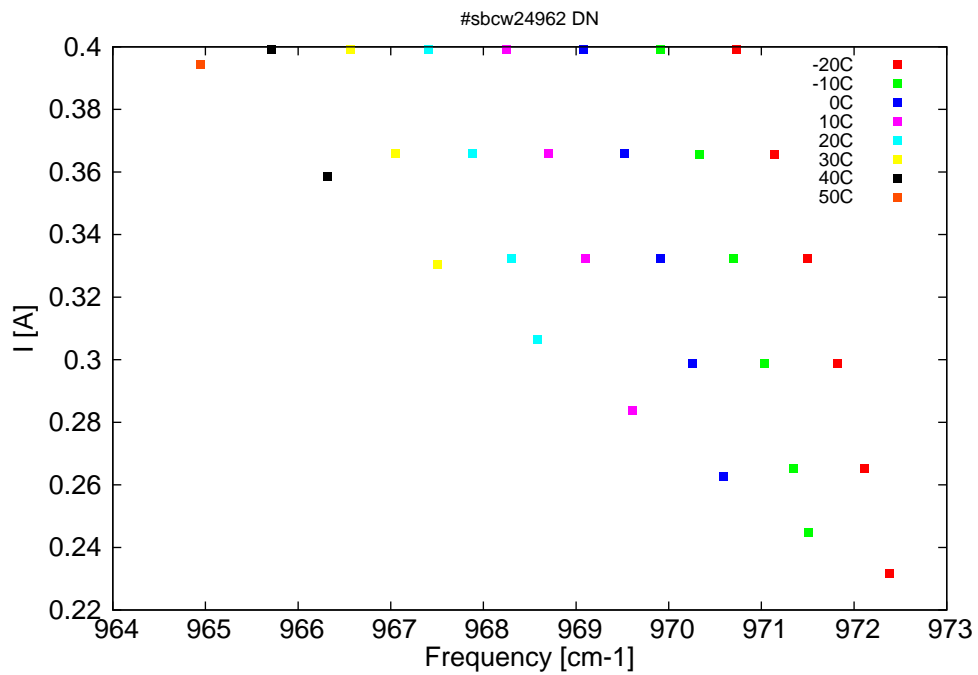


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10284.1	972.4	0.9	-20	8.44	0.232
10286.9	972.1	10.1	-20	8.72	0.265
10290	971.8	19	-20	9.01	0.299
10293.4	971.5	27	-20	9.32	0.332
10297.2	971.1	33.9	-20	9.65	0.366
10301.5	970.7	39.3	-20	10.02	0.399
10293.2	971.5	0.2	-10	8.53	0.245
10295	971.3	5.4	-10	8.71	0.265
10298.3	971	13.8	-10	9	0.299
10301.8	970.7	21.5	-10	9.32	0.332
10305.8	970.3	28	-10	9.66	0.366
10310.2	969.9	32.8	-10	10.04	0.399
10303	970.6	0.3	0	8.68	0.263
10306.6	970.3	8.6	0	9.01	0.299
10310.3	969.9	15.9	0	9.34	0.332
10314.4	969.5	22.1	0	9.69	0.366
10319.1	969.1	26.7	0	10.08	0.399
10313.5	969.6	0.4	10	8.88	0.284
10318.8	969.1	10.4	10	9.36	0.332
10323.1	968.7	16.4	10	9.71	0.366
10327.9	968.3	20.8	10	10.11	0.399
10324.3	968.6	0.4	20	9.11	0.307
10327.4	968.3	5.1	20	9.38	0.332
10331.8	967.9	10.8	20	9.74	0.366
10336.9	967.4	14.9	20	10.14	0.399
10335.8	967.5	0.3	30	9.4	0.331
10340.7	967.1	5.8	30	9.79	0.366
10345.9	966.6	9.9	30	10.2	0.399
10348.6	966.3	0.3	40	9.74	0.359
10355	965.7	5	40	10.23	0.399
10363.3	964.9	0.3	50	10.16	0.394

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

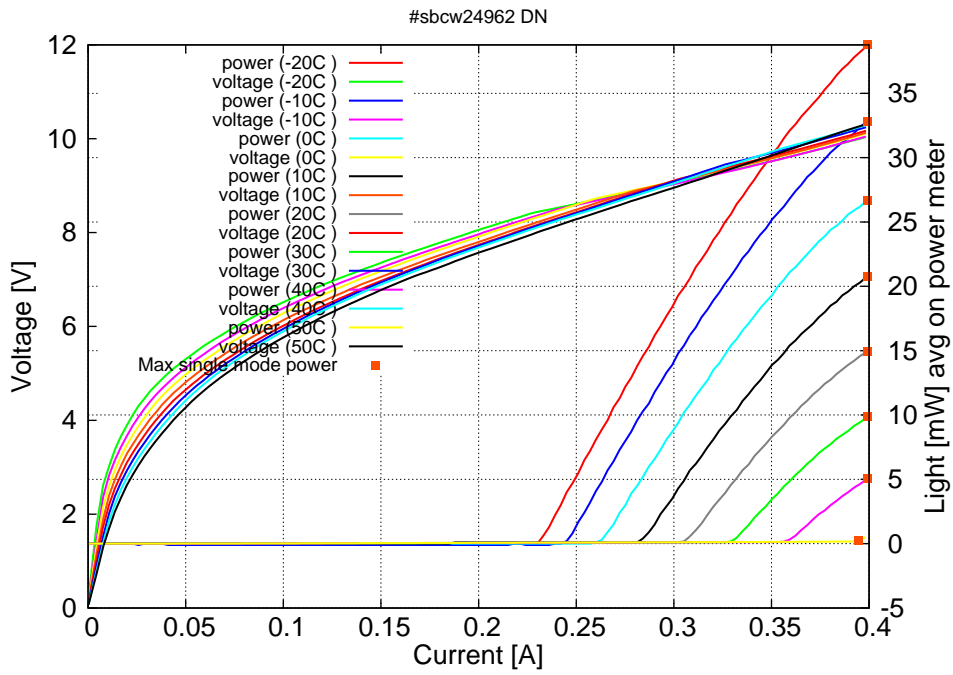


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.22A$ / $V_{th}=8.44V$ (2-wires measurements). Maximum operation current: 0.400A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

