

Datasheet for #sbcw24955 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.

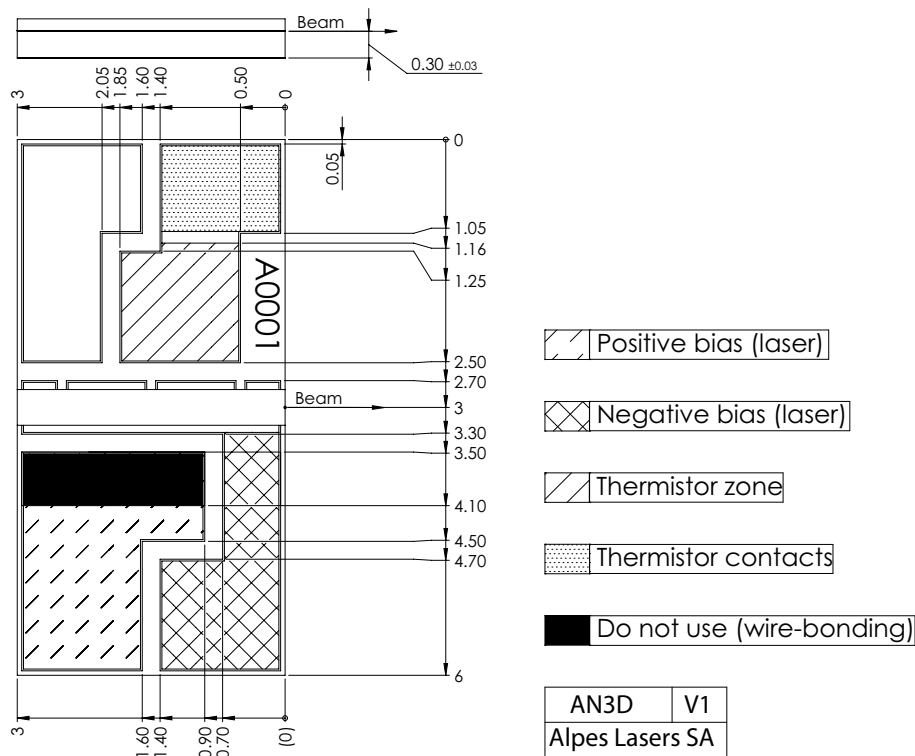


Figure 1: Mechanical and electrical interface for #sbcw24955 DN (please note that AlN submount numbering is P3768)

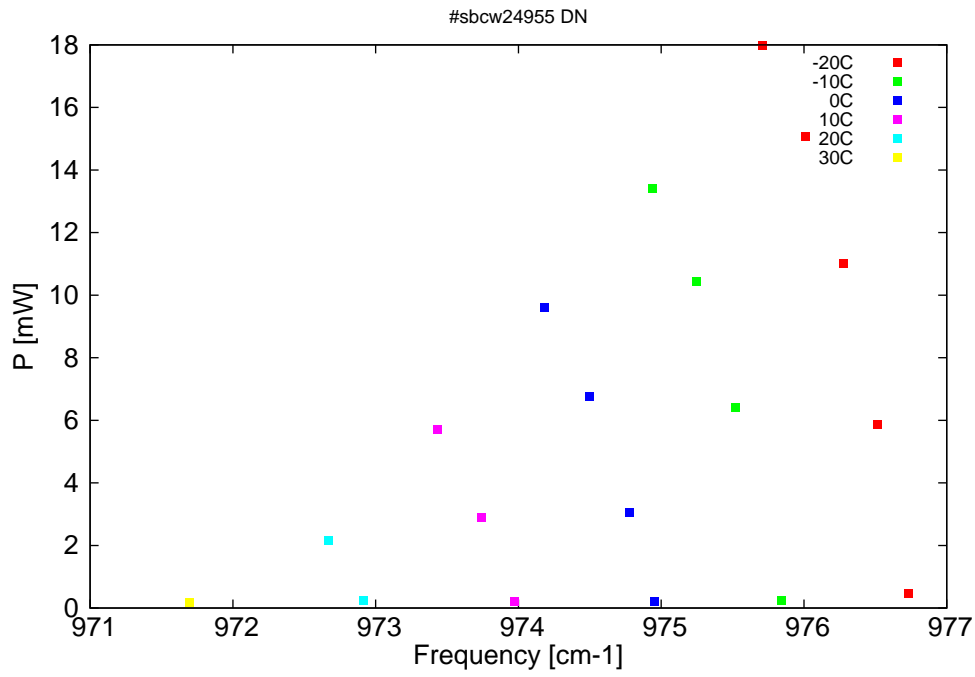


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

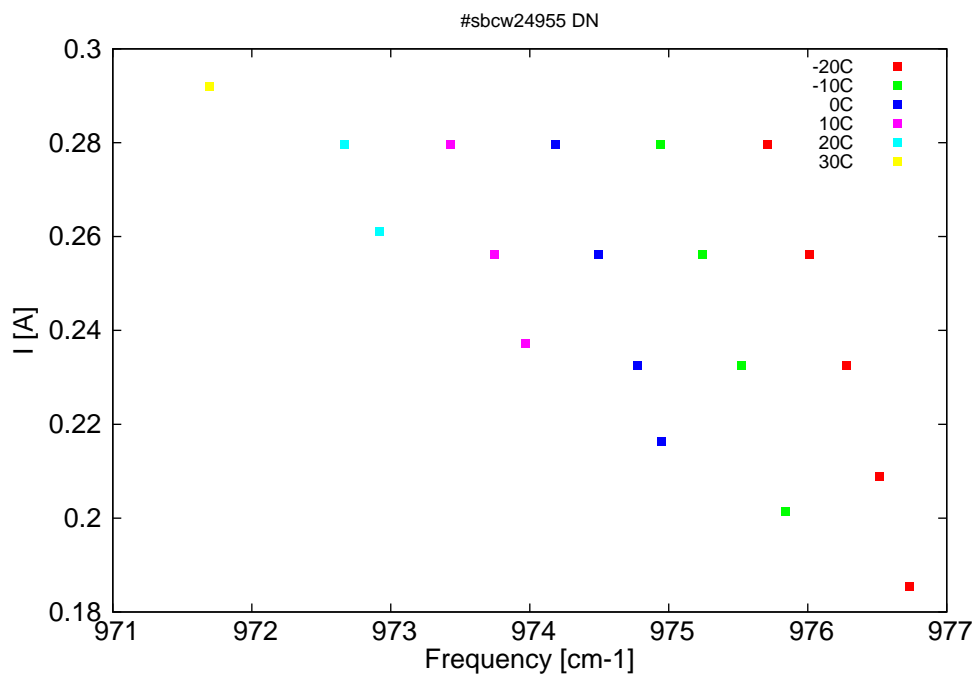


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10238.2	976.7	0.5	-20	8.78	0.185
10240.5	976.5	5.9	-20	9.09	0.209
10243	976.3	11	-20	9.43	0.233
10245.8	976	15.1	-20	9.8	0.256
10249	975.7	18	-20	10.22	0.28
10247.6	975.8	0.2	-10	8.96	0.202
10250.9	975.5	6.4	-10	9.4	0.233
10253.8	975.2	10.4	-10	9.76	0.256
10257.1	974.9	13.4	-10	10.16	0.28
10256.9	974.9	0.2	0	9.12	0.216
10258.8	974.8	3	0	9.35	0.233
10261.7	974.5	6.8	0	9.71	0.256
10265	974.2	9.6	0	10.1	0.28
10267.2	974	0.2	10	9.39	0.237
10269.6	973.7	2.9	10	9.68	0.256
10272.9	973.4	5.7	10	10.05	0.28
10278.4	972.9	0.2	20	9.69	0.261
10281	972.7	2.2	20	9.99	0.28
10291.3	971.7	0.2	30	10.21	0.292

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

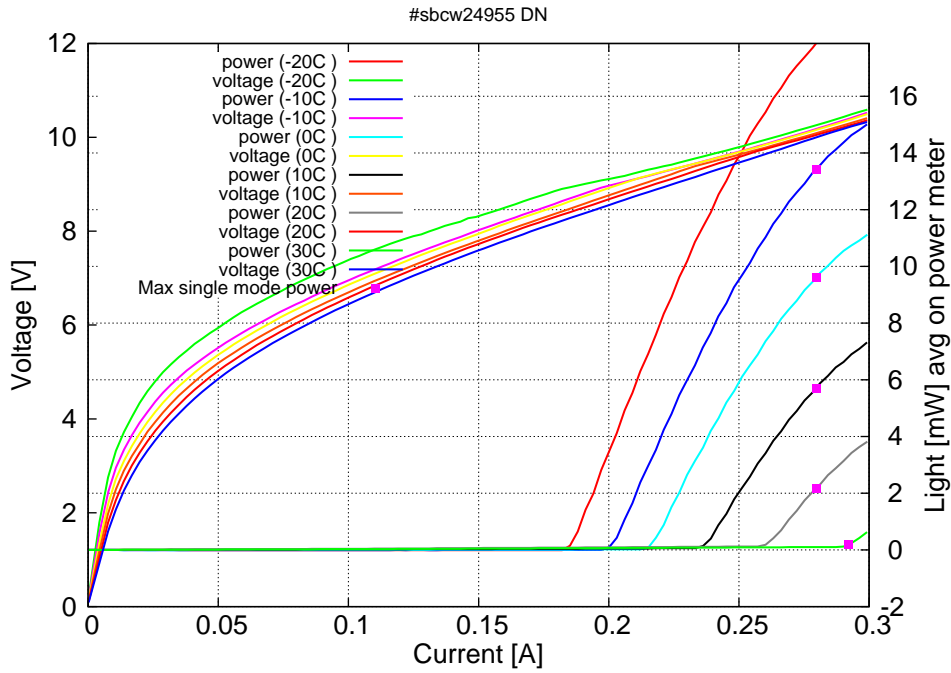


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.18A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.300A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

