

Datasheet for #sbcw24917 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.

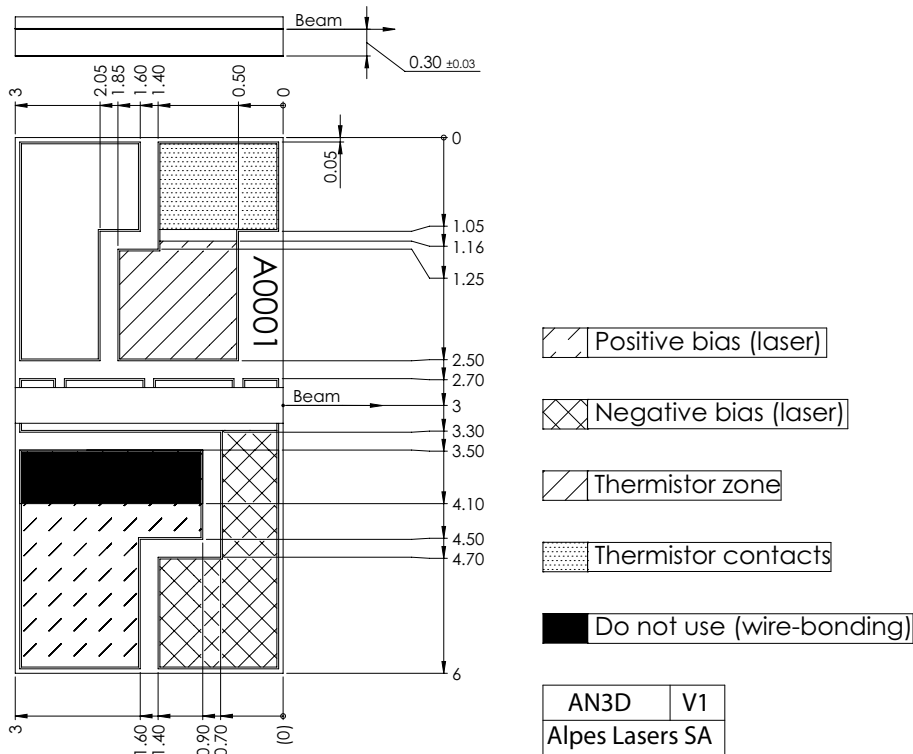


Figure 1: Mechanical and electrical interface for #sbcw24917 DN (please note that AlN submount numbering is P3725)

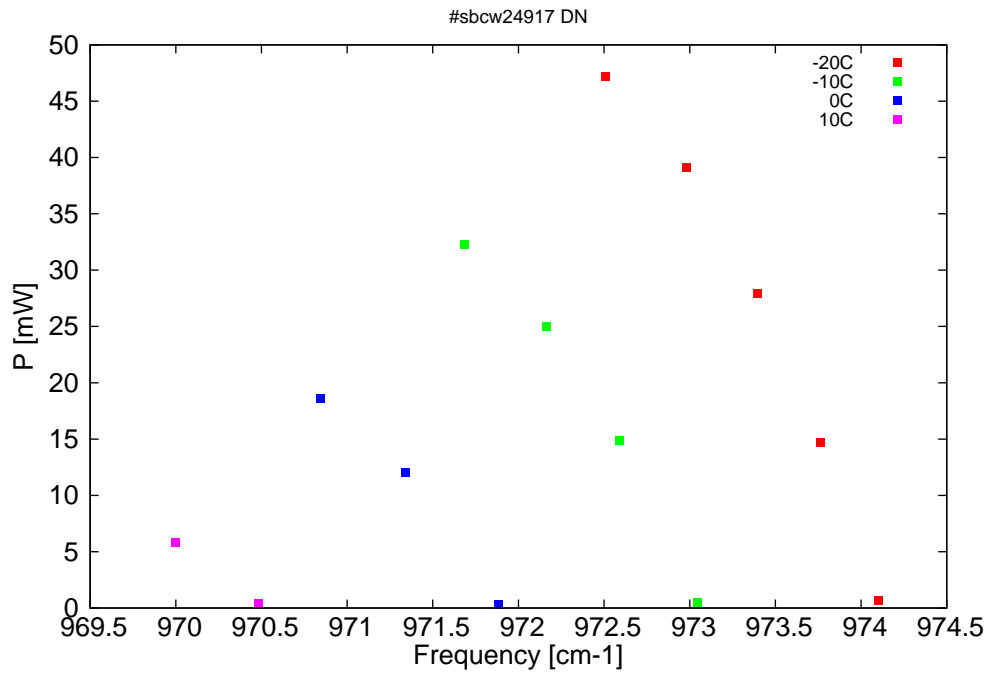


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

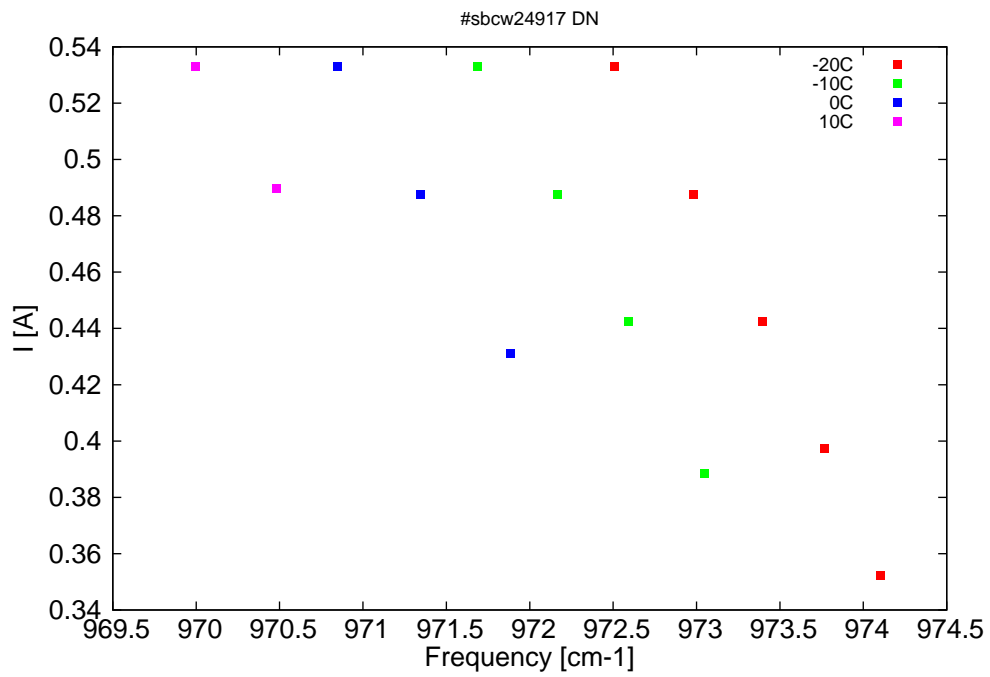


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10265.9	974.1	0.6	-20	8.76	0.352
10269.4	973.8	14.7	-20	9.08	0.397
10273.3	973.4	27.9	-20	9.42	0.443
10277.7	973	39.1	-20	9.78	0.488
10282.7	972.5	47.2	-20	10.19	0.533
10277	973	0.5	-10	8.97	0.389
10281.8	972.6	14.8	-10	9.38	0.443
10286.3	972.2	25	-10	9.74	0.488
10291.4	971.7	32.3	-10	10.14	0.533
10289.3	971.9	0.3	0	9.25	0.431
10295	971.3	12.1	0	9.7	0.488
10300.3	970.8	18.6	0	10.1	0.533
10304.2	970.5	0.4	10	9.69	0.49
10309.3	970	5.8	10	10.07	0.533

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

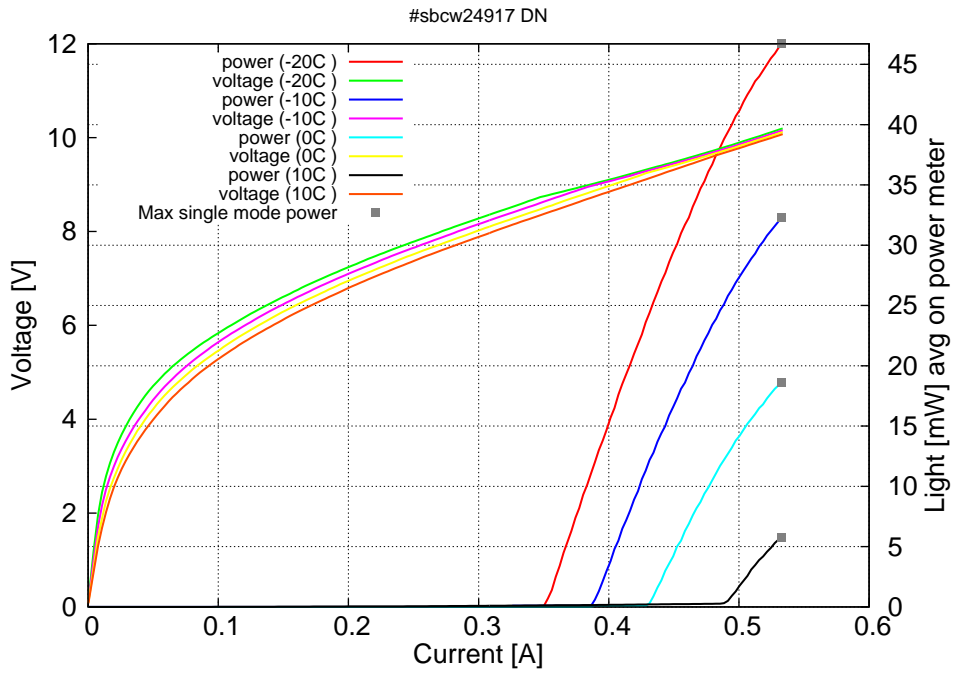


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.34A$ / $V_{th}=8.7V$ (2-wires measurements). Maximum operation current: 0.535A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

